**WATUKE FOUNDATION - UGANDA**

**P.5 LESSON NOTES TERM I – 2023**

**ENGLISH**

**ASPECT ONE: PUNCTUATION**

**A. CAPITAL LETTERS**

A B C E F G H I J K L M N

O P Q R S T U V W X Y Z

**Use of capital letters**

1. At the beginning of the sentence; e.g. My father is a good man in our village.
2. At the beginning of proper nouns; e.g. names of people, cities, lakes, mountains, countries, rivers, days , months , streets etc. e.g. Musoke , Kampala , Victoria , Elgon , Uganda , Nile , Sunday , February , William street respectively.
3. Writing abbreviations e.g. P.L.E. , U.P.E , D. E. O etc
4. Pronouns I e.g You and I are friends.
5. To begin in direct speech. E.g The teacher said, “ Go out!”
6. To begin word He, Him, His - If they are relating to God.

**EVALUATION ACTIVITY**

**Punctuate the following sentences correctly.**

1. a snake bit jenifer yesterday
2. the little boy drowned into lake kyoga
3. I was going to church when i met tumwine at lubaga.
4. Entebbe guitar singers with their play omuzira mu bazira are going to stage it at gombe.
5. out teacher mr. nkaayi is to wed tomorrow.
6. by Friday , she will have finished the homework
7. this soil has lost its fertility and I won’t plant in crops.
8. the oc would like to see the following persons engage anguye and bukane
9. the highest mountain in Uganda is mt. rwenzori
10. Tanzania is neighbouring Uganda in the south.
11. jane said, “I am very ill”
12. my brother told me to meet him on nkurumah street

**LESSON 2**

**b. Full stop ( . )**

i) Put at end of a complete sentence. E.g Kampala is the capital city of Uganda.

ii) Used in abbreviations e.g. U.P.E , P.S.V, Ms. Dr. etc

**EVALUATION**

**Punctuate the following sentences.**

1. That boy is my friend.
2. I don’t have any pen to use.
3. The OC old Kampala will visit our school next week.
4. Mary said, “ I am going to church”.
5. “I won’t attend the party,” said the angry man.
6. The thief ordered, “open the door”.
7. jesus loves us a lot
8. I once lived in tanzania and Nigeria
9. that car belongs to martin.
10. there are many islands in kampala district

**LESSON 3**

**Question mark**

Used at the end of a question or interrogative sentences .e.g. Where are you going?

**EVALUATION**

**Punctuate the following**

1. do you remember where she lives.
2. how do you do
3. where does your father work
4. is it time for lunch
5. how do you come to school
6. the teacher said, “why are you late”
7. did you see an accident on jinja road last Tuesday
8. which car does your father drive
9. are young children allowed to drive
10. how old is your youngest sister

**LESSON 4**

**Exclamation mark ( !)**

Used to show surprise, admiration or fear e.g. My God! What a dirty plate that is!

Its used on exclamatory words e.g. Hurrah!, Oh!, Alas!, Ah!, Ooops!, Hullo!

**ACTIVITY**

1. What a lovely dress this is
2. Oh cried the girl
3. What an old man your father is
4. Hurrah I have got this number correct
5. How deep this hole is
6. Hullo you are welcome

**LESSON 5**

**Comma ( , )**

Used when listing things e.g. he bought a ball , pencil, pen and hut.

Used in address or date e.g. Sir Apollo School,

P.O.Box 4096,

Kampala

Salutation e.g.

Dear Dad,

1. Used after “yes” or “No” at the beginning of the sentence. E.g. No, that you.
2. Yes, I shall go
3. Used in expressions like On the other hand, however, additionally, on top of that, for instance, by the way further more etc.
4. Used to set off the name of the person addressed e.g. Why do you come with us, Peter?
5. Used in speeches e.g., Mary said, “ I will help you”.
6. Used in question tags e.g. She is beautiful, isn’t she?

**EVALUATION ACTIVITY**

**Punctuate the following**

1. no she only owns a motor cycle
2. “I will come tomorrow” said john
3. Tuesday 11th april 2008
4. Sir apollo Kaggwa primary school

P.O.box 4321

Kampala

1. where are you going john
2. east africa is made up of uganda kenya tanzania rwanda and burundi
3. here is some chocolate . no thank you
4. she is a short bright brown girl
5. today is Monday 18th January 2009
6. The boy said “ I am eleven years old”

**LESSON 6**

**APOSTROPHE ( ’ )**

1. Used to replace an omitted letter e.g. can’t , don’t etc .
2. used to indicate ownership or possession e.g. Mary’s dress, Uganda’s etc
3. Use to form the plural of letters, signs and figures e.g. Mary writes her ts’ correctly
4. For nouns which end with letter ‘s’ we only add the apostrophe e.g. Moses’ shirt, Jesus’ name

**EVALUATION ACTIVITY**

**Write out the following putting in the possessive case**

1. The man went to the ( chemist) shop.

2. The name of Mrs. ( Musoke) dog was Micky

3. Have you seen ( Henry) new bicycle?

4. We heard the ( men) shouts in the distance.

5. My (sister) friend is coming to tea.

6. Moses bicycle got a flat tyre.

**Re – write changing the underlined to contractions**

7. Jane does not eat meat.

8. We cannot go with you.

9. My parents are not happy with my performance.

10. I shall not come to school tomorrow.

11. You will not watch TV if you do not complete the homework.

**LESSON 7**

**Quotation marks ( “ ” )**

Used to enclose words of a direct speech. E.g. “Come in,” said the teacher. “Where is your pen?” Said Mary.

**EVALUATION**

**Punctuate the following sentences**

1. my teacher said I am very good at english.
2. how do you come to school asked the headmaster
3. where is your homework said mummy
4. my father said I will buy you a present is you do well
5. the teacher said I have taught you for a long time.
6. he has been playing volleyball said ivan.
7. we have been digging said the girls
8. I broke my friend ruler said my brother
9. she was lying to me said namulesa
10. our aunt said I had taken my watch for repair

**WEEK TWO**

**LESSON 8**

**ASPECT: NOUNS**A noun is a name of anything. It can be a name o f a person, animal, place or things. Nouns are in four kinds i.e. proper nouns and common nouns. Abstract nouns and collective nouns.

**Proper nouns**

A proper noun is a particular name of a person or thing. Names of people , books, places etc. are examples of proper nouns, All proper nouns are written beginning with a capital letter.

**Examples**

Gloria, Nakitende, Junior English, Bwaise , Rwenzori, Nile, Kenya, Africa, Nairobi, Sunday , October etc

**EVALUATION**

**Identify the proper nouns and punctuate correctly**

1. My father will go to Nairobi next week.
2. Mr. buyondo teaches English in primary five.
3. river nile is the longest river in the world.
4. nairobi , kampala, Kigali, dodoma, Bujumbura are cities in east Africa.
5. Mr. hills is a Briton by nationality
6. my eldest brother is busy at makerere university.
7. treasure island is a very interesting book.
8. musa, wabwire and nakanjako are friends.
9. when will you go to kasese to visit the queen Elizabeth national game park?
10. my brother is very poor at mathematics.

**LESSON 9 AND 10**

**COMMON NOUNS**

Common nouns are used to name only one class, people, place or things e.g girl , tree, town , etc

They are sub – divided in singular and plural, countable and un countable nouns. Nouns that mean “only one” are singular. Nouns that mean “more than one” are plural.

1. most nouns form their plural by adding “s” e.g. animals, houses , dogs, books, spaces etc
2. Some nouns form their plurals by adding “ es”
3. **Nouns that end in a hissing sound e.g.**

dress - dresses box - boxes torch - torches

brush - brushes church - churches branch - branches

inch - inches fox - foxes

1. **Some nouns that end in ‘o’ add ‘es’**

Potato - potatoes mosquito - mosquitoes

Hero - heroes cargo - cargoes

1. **Other nouns that end in ‘o’ add only ‘s’**

Photos, pianos, dynamos, radios, studios, videos, bamboos, igloos, eskimos

1. **Nouns that end in “f” or “fe” form their plurals by changing “f” or “fe” to “ves”**

leaf - leaves hoof - hooves wife - wives thief - thieves

half - halves wolf - wolves knife - knives

**Exceptional**

chiefs, roofs, gulfs, staffs, beliefs, stuffs.

With two plurals

hoof- hoofs/hooves scarf – scafs/scarves handkerchief –handkerchiefs/handkerchieves

1. **Nouns that end in “Y” make their plurals by changing “y” into “ies”**

baby - babies army - armies factory - factories

lady - ladies city - cities party - parties

fly - flies body - bodies

1. **There are one or two nouns that don’t follow any of these rules.**

**Examples**

Man - men child - children ox - oxen

Woman - women foot - feet tooth - teeth

Goose - geese mouse - mice sheep - sheep

Deer - deer dozen - dozen furniture - furniture

Focus – foci / focuses vertex – vertices oasis – oases

Aquarium – aquaria

1. **Common nouns that end with ‘y’ preceded by a vowel letter simply take ‘s’ in their plural**

Examples

Donkey – donkeys valley – valleys tray – trays

Key – keys day – days turkey – turkeys

Spray – sprays trolley – trolleys boy – boys

Toy – toys railway – railways

**EVALUATION 1**

**Write the plural of the underlined words.**

* 1. The child came into the room
  2. A lady gave the girl the key
  3. The cat caught the mouse.
  4. The leaf fell from the tree
  5. The ox pulled the cat.
  6. The army went into the battle.

**Re – write the sentences giving the plural form of the underlined words.**

* 1. The nurse carried a baby.
  2. A thief stole watches and the boxes of jewellies.
  3. A wolf killed a sheep.
  4. This furniture is very expensive.

**EVALUATION 2**

**Write the singular form of the underlined words.**

* 1. The gentlemen filled the glasses with soda.
  2. We saw geese and foxes.
  3. The boys have nice watches.
  4. The armies fought a hard battle.
  5. The at caught some mice.

**Rewrite the sentences giving the singular forms of the underlined words.**

* 1. The feet of the deer crushed the flower.
  2. Birds sang on the branches of a tree
  3. A boy was tending some sheep in the field.
  4. The man put the books on top of the shelves
  5. the women had knives.

**LESSON 11**

**COMPOUND NOUNS**

These are nouns with more than one noun. Some of the compound nouns take a hyphen while others don’t.

**Egs of compound nouns that don’t take a hyphen**

Blackboard - blackboards employment - employments

Armchair - armchairs homework - homeworks

Spoonful - spoonfuls handkerchief - handkerchiefs

Handful –

Headmaster

**Compound nouns that take a hyphen**

Step – son - step –sons

Step – mother - step – mothers

Co – workers - co – workers

X – ray - X- rays

Mouse – trap - mouse – traps

Bye – law - bye - laws

Tooth – brush - tooth brushes

Girl – guide - girl – guides

Check – point - check – points

Cob - web - Cob – webs

He – goat - he – goats

Egg – plant - egg – plants

Foot – path - foot – paths

Check – up - check – ups

Exceptional

Man – servant - men – servants

**Compound nouns which affect the first word only**

Passer – by - passer – by

Sister – in – law - sister – in – law

Head – of - state - heads – of - state

Prefect – on – duty - prefects – on – duty

Master – on – duty - masters – on – duty

Commander - in chief - commanders – in – chief

Guest - of – honour - Guests - of – honour

Father in – law - fathers – in – law

Office – in – charge - Officers – in – charge

Master – of – ceremonies - masters – of - ceremonies

**EVALUATION**

**LESSON 12**

**Write the plural of the underlined words.**

1. The rebels are fought by the commander – in – chief.

2. The baby was given a spoonful of medicine.

3. This passer – by has escaped from prison.

4. The classroom block was measured with a tape – measure.

5. Tug – of – war is an interesting game.

**Rewrite the sentences giving the plural form of the underlined words**.

6. Our head – of – department is very hardworking.

7. A toothbrush is sold in our shop.

8. That member – of – staff is going to be transferred.

9. Who is the prefect – on – duty this week.

10. We saw many head – of – cattle at the road side.

**LESSON 13**

**COLLECTIVE NOUNS**

These nouns stand for a lot of things /individuals. We call them collective nouns because they refer to collections of things, people, items etc.

**Examples**

A gang of thieves

A packet of cigarettes

A flock of sheep

A fleet of cars

A team of oxen

A heap of soil

A troop of lions

A heap of soil

A swarm of bees

A bouquet of flowers

A set of furniture

A brood of chicken

A forest of trees

A leap of leopards

A troop of monkeys

A crowd of people

A troupe of dancers

A company of actors

A choir of singers

A gang of prisoners

A mob of disorderly people

A congregation of worshipers

A bundle / bunch of keys

A cluster of bananas

A mouthful of food

A pack of cards

A herd of cattle

A pocketful of money

A library of books

A herd of pigs

An army of frogs

A flight of birds

**EVALUATION**

**Complete each of the phrases**

* 1. A .................................... of grapes
  2. A ....................................of matches
  3. A ...............................of clothes
  4. A ...............................of trees
  5. A ..............................of corn
  6. A .................... of drawers
  7. A ...........................of bees
  8. A ...................................of sticks
  9. A ............................of stamps
  10. A .................................of stars
  11. A ....................................... of birds
  12. A ....................... of cows
  13. A ...........................of angles
  14. A .................................of wolves
  15. ................................. of whales
  16. A ................................... of monkeys
  17. A ................................ of thieves
  18. A .............................. of pups
  19. A ....................................of slaves

1. A ...............................of beautiful ladies

**LESSON 14, 15, 16 AND 17**

**ABSTRACT NOUNS**

These are the nouns which cannot be seen or counted.

They are nouns of qualities o things, creatures or people. These qualities only exist in something. They don’t exist on their own. Abstract nouns can be formed from adjectives or verbs.

**Examples**

Width height

Length anger

Breadth behaviour

Truth love

Sadness heat

Happiness presence

Bitterness choice

a**) Abstract nouns from adjectives formed by adding “ness”**

**Adjective abstract noun**

1. eager eagerness

2. clever cleverness

3. clean cleanliness

4. sad sadness

5. handsome handsomeness

6. kind kindness

7. heavy heaviness

8. smart smartness

9. good goodness

10. rich richness

11. quick quickness

12. happy happiness

13. strange strangeness

14. bright brightness

15. mad madness

16. slow slowness

17. ugly ugliness

18. lazy laziness

19. fat fatness

20. shabby shabbiness

21. stubborn stubbornness

22. foolish foolishness

23. rude rudeness

24. quiet quietness

25. polite politeness

26. sick sickness

27. ill illness

28. new newness

29. cold coldness

b. Abstract **nouns formed by changing the last “t” or “te” to “ce” or “cy”**

**Adjective Abstract noun**

Distant distance

Innocent innocence

Lenient lenience

Important importance

Patient patience

Adundant abundance

Silent silence

Absent absence

Ignorant ignorance

Present presence

Violent violence

Urgent urgency

Efficient efficiency

Intimate intimacy

Constituent constituency

Expectant expectancy

Agent agency

Accurate accuracy

Accountant accountancy

Pregnant pregnancy

**Abstract nouns formed when the adjective changes to other forms**

**Adjective Adjective nouns**

Powerful power

Truthful truth

True truth

Harmful harm

Painful pain

Faithful faith

Merciful mercy

Anxious anxiety

Curious curiosity

Poor poverty

Dangerous danger

Old age

Dead death

Healthy health

Coward cowardice

Punctual punctuality

Greedy greed

Loyal loyalty

Pure purity

Cruel cruelty

Able ability

Envious envy

Difficult difficulty

Original origin

Possible possibility

Superior superiority

Rapid rapidity

Rigid rigidity

Supreme supremacy

Jealous jealousy

Noble nobility

Wise wisdom

Free freedom

Broad breadth

Just justice

High height

False falsehood

Warm warmth

Proud pride

Humble humility

Long length

Wide width

Deep depth

Angry anger

Hungry hunger

Timid timidity

**d. Abstract nouns ending with “TION” formed from verbs.**

**Verb abstract noun**

Explain explanation

Repeat repetition

Classify classification

Congratulate congratulation

Accommodate accommodation

Introduce introduction

Complete competition

Administer administration

Oppose opposition

Complete completion

Continue continuation

Revolve revolution

Elect election

**e. Abtract nouns that end in “SION” from verbs**

**Verb abstract nouns**

Decide decision

Conclude conclusion

Invert inversion

Confuse confusion

Divide division

Explode explosion

Express expression

Discussion discussion

Impress Impression

Provide provision

Convert conversion

Expel expulsion

Posses possession

Confess confession

**f. Abstract nouns ending with “MENT” from verbs**

**Verb Abstract**

Develop development

Govern government

Pay payment

Punish punishment

Excite excitement

Require requirement

Advertise advertisement

Entertain entertainment

Achieve achievement

State statement

Measure measurement

Enlight enlightment

Refresh refreshment

Move movement

Assign assignment

Embarrass embarrassment

g**. Abstract nouns that don’t change verbs.**

**Verb Abstract nouns**

Process process

Record record

Progress progress

Demand demand

Duplicate duplicate

Rest rest

Pool pool

Fish fish

Love love

Retreat retreat

Race race

Drive drive

Dream dream

Knock knock

Ride ride

Sleep sleep

**EXCEPTIONS**

**Verbs which form abstract nouns without following any of the above rules**

**Verb Abstract nouns verb Abstract nouns**

Depart departure mix mixture

Arrive arrival fix fixture

Avail availability assemble assembly

Choose choice

Fail failure advise advice

Succeed success practice practice

Sit seat refuse refusal

Lend loan lose loss

Speak speech

Just Justice sell sale

Serve service

i**) Abstract nouns formed from other nouns**

**Nouns abstract nouns**

Neighbour neighbourhood

Free freedom

King kingdom

Child childhood

Man manhood

Brother brotherhood

Poet poetry

Friend friendship

Relation relationship

Slave slavery

War warrior

Martyr martyrdom

Pot pottery

Baker bakery

Butcher butchery

Grocer grocery

**EVALUATION**

**Use the correct form of the words in brackets to complete the sentences.**

* 1. John’s .....................................was misleading. ( advise)
  2. Our teachers get their ...............................at the end of every month. ( pay )
  3. We had a lot of ..............................during holidays. ( entertain)
  4. The .............................i had last night almost came true. ( dream)
  5. What caused your ..................................yesterday? ( absent )
  6. Due to .................................they did poorly in their examinations. (ill)
  7. Do you know the ................................... of your mother? ( high)
  8. There was no ............................ for most of the guests. ( accommodate)
  9. There is a lot of ................................in Smoking. ( dangerous)
  10. My elder sister is reading an ..................................course. ( accountant)

**Gender**

Nouns and pronouns belong to one or another of four genders in grammar. These are; masculine, feminine, common and neuter

Masculine feminine masculine feminine

Boy girl boar sow

Actor actress buck doe

Conductor conductress bull cow

Lion lioness bullock heifer

Manager manageress cock hen

Master mistress colt filly

Mayor mayoress cob (swan) pen

Negro negress dog bitch

Poet poetess drake bitch

Priest priestess gander duck

Prince princess ram ewe

Bachelor spinster stallion mare

Bridegroom bride steer/ bullock heifer

Brother sister billy – goat nanny goat

Nephew niece buck rabbit doe rabbit

Male female bull calf cow calf

Shepherd shepherdess boy scout girl guide

Tailor tailoress grandfather grandmother

Waiter waitress he goat she goat

Sir madam man servant maid servant

Son daughter son – in – law daughter – in – law

Uncle aunt step father step mother

Wizard witch step son step daughter

Widower widow

**Common gender**

Words which refer to creatures of either sex

The same word may be used both of male and female e.g.

Adult, animal, baby , bird, cat, cattle, teacher, doctor, child, cousin, relative, visitor, sheep, darling friend, passenger, pupil, pig, infant, guest, fowl, guardian

**Neuter**

Words which refer to things without life or sex. Bag, boots, box, bread, butter, chair, chalk, chimney, church, cocoa, coffee, desk, dishes, floor, house, jacket, kettle, knife, mirror, pencil, pillow, ruler, school eat, stairs, street, table

**EVALUATION 1**

Group the following in their respective genders

Ewe, traitor, pen, sow, pupil, cousin, prince, lady, lad, floor, giantess, soldier, orphan, postmaster, drake wizard, lord, she, bridegroom, mistress, spinster, cup, shoe, Billy – goat, gander, bullock, doe, window, daughter, mare, pen

**EVALUATION 2**

**Change all masculines into corresponding feminines**

* 1. The bridegroom is my nephew
  2. The instructor ordered him to jump
  3. My landlord is a widower
  4. The bull attacked the milkman.
  5. The Duke chatted to the man
  6. “No sir”, he replied
  7. The waiter served his own brother
  8. “He was indeed a hero,” said the emperor

**JUNIOR ENGLISH**

**Young ones of gender nouns**

**Nouns - Young ones Nouns Young ones**

Cat - kitten eagle - eaglet

Cock (bird) - cockerel owl - owlet

Hen ( bird) - pullet fowl - chicken

Deer - fawn goat - kid

Hare - leveret goose - gosling

Cow/bull - calf stallion - foal or colt

Horse - foal mare - filly

Ass - foal toad/frog - tadpole

Sheep - lamb trout/fish - fry

Swan - cygnet salmon (fish) - nestling

Dog - puppy hawk (bird) - bowet

Duck - duckling eel (fish) - elver

Pig - piglet lion / bear/ fox/ tiger/ leopard - cub

Butterfly/ moth - caterpillar

Elephant/whale - calf

**EVALUATION**

**Complete the sentences correctly**

1. Cat is to kitten as a frog is to ................................................

2. Lambs are to sheep as .............................is to bears.

3. Eagle is to eaglet as a monkey is to ............................................... .

4. A ...............................is to a fish as a rack is to rabbit.

5. Piglets are to pigs as ................................................are to elephants.

**Use a suitable word to complete the sentences.**

6. The duck is swimming with its ......................................................

7. The goose has ten .....................................................................

8. The rabbit has given birth to six lovely .............................................

9. The bird built a nest for its ............................................................

10. The fox ran very fast to save its ......................................when it was attacked by a lion.

**ARTICLES**

These are ‘a’, ‘an’, ‘the’

**Article “a”**

The singular common nouns which start with consonants take the article “a” before them.

These consonants are b,c,d,f,g,h,j,k,l,m,n,p,q,r,s,t,v,w,x,y,z

**Examples**

A kite, a boy, a tree, a mango, a car

Words with vowels but having consonant sounds e.g. a European , a university , a one way street, a Ugandan, a ewe.

**Article “an”**

The singular common nouns which start with vowels take the article “an” before them. These vowels are; a, e, i , o, u

**Examples**

An example, an orange, an ant , an elephant , an ox

However, some words which begin with a consonant but sound like a vowel also take “an” before them. e.g an hour, an heir, an x-ray, an honest an honourable member.

**Article “the”**

This article is used for the class, definite things, superlative degree, some rivers and mountains, countries, islands and water bodies.

We always use it with nouns already known very well.

**Examples**

The kind, the poor, the rich

The moon, the sun, the soil

The biggest boy,the most beautiful girl

The Nile, The Amazon, The Red sea

The Rwenzori , The Himalayas , The United States of America.

**NB.**

“The” is used infront of all common nouns except proper nouns or when referring to something for second time and thereafter.

When the listener knows exactly what the speaker is talking about. E.g. shut the door

“The” is used before ordinal number like I was the first in the face.

“The” is used to refer to one thing or group of things commonly known e.g. the moon etc

**Evaluation**

**Use either “a’, “an” or “the” in each of the spaces below**

1. Muwanguzi eats ...........................................................egg every morning

2. .........................................chair is made of wood.

3. .......................................Nile is the longest river in the world.

4. She came ...................................hour late.

5. Makerere is ..........................oldest University in East Africa.

6. It was ...................................unwise act to sit on ......................broken chair.

7. I saw ..............................black African in ............................market.

8. .......................................garden fork is ...................................useful tool.

9. Bujumbura is .............................capital city of Burundi.

10. Seven is not ...............................even number.

11. Sir Edward Muteesa II was .....................................first president of Uganda.

12. Wambwa is ..............................ugly man.

13. I cut a branch off the tree ..................................was dry.

14. ..............................baby is crying because it is hungry.

15. My father got ...............................honourally degree from Makerere.

**TENSES**

**PRESENT SIMPLE TENSE**

Present simple tense is everyday. In this tense singular subjects of the sentence, you add “s” to the main verb. For the singular third person while with plural subjects and “I” you don’t add “s” .

**Examples: Affirmative sentences**

1. Robert eats cassava every day.

Robert and Jane eat cassava every day.

2. You play football every evening.

You don’t play football every evening.

**EVALUATION**

**Turn the following sentences into negative sentences**

1. Our teacher speaks English fluently every day.

2. The baby cries every day.

3. My mother draws water from the well every day.

4. Joyce lies on the bed every day.

5. The timekeeper rings the bell every day.

6. She always fetches water.

7. Tom and Aaron do homework from home every day.

8. The drivers drive cars every day.

9. The children keep their books in the desks every day.

10. Joseph and Mary study at Rubaga Primary school every day.

**INTERROGATIVE SENTENCES**

Affirmative sentences can be changed into interrogative sentences.

To change sentences to interrogative, you ought to begin with a verb.

**Example**

1. Robert eats cassava every day.

Robert does eat cassava every day.

Does Robert eat cassava every day?

2. I play chess every evening

I do play chess every evening.

Do I play chess every evening?

**EVALUATION**

**Change the following sentences from Affirmative to interrogative**.

1. Wesonga completes his homework before going to bed.

2. Our teacher of English marks our books daily.

3. That man washes cars in the washing bay.

4. Wefafa and Nafutali sit under that tree every evening.

5. Jesse cleans his house before leaving for work.

6. The porter pushes a wheel barrow every day.

7. The class monitor goes to the staffroom after every lesson.

8. He carries a school bag every day.

9. They brush their teeth every after each meal.

10. Walumbe hits at each door once very month

**QUESTION TAGS**

There are two types of question tags i.e positive and negative question tags. Negative question tags are used in affirmative sentences while positive question tags are used in negative sentences and commands.

Examples

1. Mussime collects books every day.

Musiime does collect books every day, doesn’t he?

2. Musiime doesn’t collect books every day

**EVALUATION**

Supply suitable question tags to the following sentences

1. That boy washes his stockings everything.

2. Our teachers often advised us to behave well.

3. The headmaster doesn’t drive a white car.

4. George and Peter mop this room every Saturday.

5. Kwezi doesn’t boil water for drinking.

6. Our parents pay our school fees.

7. Luzze and Kamukma often disturbs us in class.

8. Waluzi types his work by himself.

9. Opio and Okia like playing in class.

10. It doesn’t rain every day.

**PRESENT CONTINUOUS TENSE**

It is also called the now tense. The helping verbs are “is” “am” and “are” when constructing a sentence, you add “ing” to the main verb.

**Note:** Main verbs with short vowels before the final consonant, double the final consonants and then take “ing” at the end.

e.g slap - slapping , sit - sitting

clap - clapping , mop - mopping

**Examples: Affirmative sentences**

1. She is working now.

2. They are swimming in the river.

3. My sister is putting the cup on the table.

**Affirmative sentences can be changed to negative sentences.**

1. She is working now.

She is not working now.

2. I am going with her.

I am not going with her.

3. My sister is putting the cup on the table.

My sister is not putting the cup on the table.

4. They are swimming in the river.

They are not swimming in the river.

**Turn the following sentences into affirmative**

1. John is cutting grass.

2. David is making a toy.

3. The girls are washing clothes

4. Mary is eating mangoes.

5. We are bringing the chairs.

6. The cat is killing the rat.

7. Phillip is hammering a peg.

8. The woman is driving a car.

9. I am mopping the house.

10. The women are driving cars.

**INTERROGATIVE SENTENCES (QUESTIONS)**

Affirmative sentences can be changed into interrogative sentences

To change sentences to interrogative begin with a helping verb

**Examples**

1. David is breaking a bucket.

Is David breaking a bucket?

1. I am looking at the flower.

Am I looking at the flower?

1. They are watching the match

Are they watching the match?

**EVALUATION**

**Rewrite in interrogative**

1. Jack is blowing the whistle
2. They are buying a pen.
3. The lady is feeding a baby
4. We are seeing a bird
5. He is playing with a pen
6. My mother is preparing tea
7. I am writing a letter
8. You are eating apples
9. We are making boxes
10. Joan is singing a song

**QUESTION TAGS**

1. The girl is breaking a glass, isn’t she?
2. They are not playing football, are they?
3. I am going to church, aren’t I?
4. I am not going to school, am I?

**Activity**

**Supply suitable question tags**

1. The man is cutting a tree, ……..?
2. He is not helping her, ……….?
3. I am eating food, ………?
4. The dog is eating bones, ……….?
5. They are not reading novels, ……..?
6. Doris is carrying a basket, ……..?
7. The girls are not plucking flowers, ………?
8. The headmaster is meeting the scouts, ……..?
9. She is not holding a stick, ……?
10. Alice is cleaning the room, …………?

**PRESENT PERFECT TENSE**

Present perfect tense is the already tense. The use of “has” and “have” are the helping verbs. “has” is is used with singular subjects and ‘have” for plurals and “I” (First person singular)

The main verb is in the past participle.

**Examples of affirmative sentences**

1. The baby has cried for several hours.

2. James has taken your book.

**NEGATIVE SENTENCES**

**Affirmative sentences can be turned to negative sentences as follows:**

1. The baby has not cried for several hours.

2. James has not taken your book.

**Evaluation**

**Rewrite the given sentences as negative**

1. Mwanje has sown seeds in the garden.

2. The tailor has sown seeds in the garden.

3. They have sawn my clothes already.

4. We have seen the teacher just now.

5. Mr. Wakilo has bitten his friend’s hand.

6. The stubborn boys have torn your books.

7. The house girl has hung clothes on the wire.

8. The animals have heard the thunder.

9. The teachers have already marked our exams.

10. The headmaster has taken our sweaters.

**INTERROGATIVE SENTENCES**

To write interrogative sentences in the present perfect tense, you begin with the helping verbs - has or have.

**Examples**

**Rewrite the given sentences in interrogative**

**Examples**

1. I have seen your new house.

Have I seen your new house.

2. She has done her work.

Has she done her work?

**EVALUATION**

1. The policeman has shot a thief dead.

2. They have hidden something under the carpet.

3. The mango has fallen from the tree.

4. The teacher has become very angry.

5. My parents have bought me new shoes.

6. Kingo has written a good composition.

7. Our teachers have taught us a lot of English.

8. The hen has laid many eggs.

9. Lumonde has eaten all your sauce.

10. The housefly has dirtied your food.

**QUESTION TAGS**

**Complete the sentences using suitable question tags**

**Examples**

That man has taken my handkerchief, hasn’t he?

Mr. Musiime hasn’t come today, has he?

**EVALUATION**

Complete the following sentences using suitable question tags

1. He has hidden your book in the cupboard, ……….?
2. The headmaster has forgiven you, …………?
3. My parents have not gone abroad, ………….?
4. My shirt has been torn, ……………?
5. His friends have not gone to school today, ………….?
6. Jemba has not done the homework, ………….?
7. He has built a permanent house, …………..?
8. You have not carried your set with you, ………..?
9. He has not lost his way, ……………..?

**THE PRESENT PERFECT CONTINUOUS TENSE**

This tense is used when talking about an event that began sometime in the past and is still going on.

Note: We use ‘has’ and ‘have’ as helping verbs ‘been’ as the perfect auxiliary and a main verb ending in ‘ing’ i.e. has, have (been) + ‘ing’

**Examples**

She has been learning English

I have been going to school

She has been peeling potatoes

“for” and “since” can also be used e.g. two hours, three days, a week, ten years etc

**Examples**

They have been waiting for you for two days

She has been eating for half an hour

Since is used when a point or particular period of time from which an action started to take place is mentioned .e.g nine o’clock, Monday, last week etc

**Examples**

We have been learning English since morning

He has been repairing bicycles since yesterday

**Activity**

Use the correct form of the verbs in brackets to complete the sentences in the present perfect continuous

1. He……………..the goat on the tree. (tie)
2. They………..the mango tree for mangoes. (climb)
3. John………….hands because of happiness. (clap
4. Jonathan and I ………..cards from class. (play)
5. The congregation…………….for the pope. (pray)
6. The spectators…………the match between KCCA and Villa football clubs. (watch)
7. We…………..in class because we have not work. (shout)
8. Jane and her brother Tom……………to get a first grade in P7
9. I …………….because I am sick. (sleep)
10. The shepherd ………..animals in the bush near the lake. (graze)

**AFFIRMATIVE, NEGATIVE AND INTERROGATIVE SENTENCES**

**PAST SIMPLE TENSE**

The past simple tense is yesterday tense. In past simple the main verb is distinct and always stands alone. It doesn’t matter whether the subject is plural or singular. The verb doesn’t change. The adverb of time for this tense is mainly “yesterday” and “last”

**Affirmative sentences**

**Examples**

1. The man spoke good English yesterday.

2. The cat chased the rat yesterday.

Turn the above affirmative sentences to negative form.

1. The man didn’t speak good English yesterday.

2. The cat didn’t chase the rat yesterday.

**EVALUATION**

1. The boy tore my shirt yesterday.

2. They chose the red colours only.

3. This coat cost me sh. 100,000/=

4. The wrongdoers swore not to do it again.

5. The men held the rope tightly during the tug – of – war.

6. The teacher punished those who didn’t complete the homework.

7. She swang her belt in air.

8. The whole class stood up to greet the visitor.

9. The newsmen broadcast sad news over the radio.

10. The pedestrians walked along the high street..

**Interrogative sentences**

Turn the given affirmative sentences to interrogative.

**Examples**

1. She took the food to the hospital yesterday.

She didn’t take the food to the hospital.

2. The stranger spoke French.

The strangers didn’t speak French.

**EVALUATION**

1. Jona and I played cards last morning.

2. Yowana clapped hands because of happiness.

3. The shepherd grazed in the bush yesterday.

4. They danced the whole day.

5. She began her homework late.

6. The spectators watched the match between Uganda Cranes and Harambe stars.

7. We shouted in class the whole day.

8. Your father smoked a pipe last evening.

9. Those boys quarreled over food.

10. The customer cheated the seller of meat.

**QUESTION TAGS**

**Examples**

Supply suitable questions tags to these sentences

1. The dog ate your hen.

The dog did eat your hen, didn’t it?

2. The bursar didn’t pay me, did she?

**EVALUATION**

1. You met him on the way home.

2. The doctor treated them last night.

3. The market burnt to ashes.

4. Mulongo washed your father’s car.

5. My parents left me in the park.

6. You failed the test last time.

7. Our guests arrived late.

8. They contributed greatly to our party.

9. You saw them in the church

**ADVERBS**

Adverbs are words that tell us more about a verb, an adjective or another adverb e.g. slowly, loudly

**TYPES OF ADVERBS**

1. Adverbs of manner

These adverbs tell us how something happens or happened. They are commonly formed from adjectives by add - ly. E.g Nicely, beautifully, badly, simply.

2. **Adverbs of time**

This class of adverbs tell us when something happens or happened. E.g now, since, before , today , already . last, well etc.

3. **Adverbs of duration**

These adverbs tell us about the period an action lasted e.g an hour , a week, a year, a moment etc. Express duration of an action. E.g They waited for three hours.

4. **Adverbs of frequency**

This class of adverbs tells us when something happened. E.g rarely, often. Always, ever, usually, sometimes, occasionally, seldom, normally, frequently, commonly.

e.g She often shouts in class.

5. **Adverbs of place**

These adverbs tell us where something took place. E.g everywhere, here, there, outside, inside, etc

My aunt lives in Kenya.

**6. Adverbsof degree**

These are adverbs which tell us the extent to which something happened. E.g much , almost , only, rather, why, quite, e.g That composition is very easy.

**ORDER OF ADVERBS**

The order of adverbs is how( manner), where ( place) , when ( time.

e.g He hardly read books at home last week.

Hardly - how

At home - where

Last week - when

2. The prefect spoke carefully at the parade yesterday.

Carefully – manner – How

At the parade – place – where

Yesterday - Time - when

**Evaluation**

**Complete these sentences suing the correct adverbs order**

1. Will you run ( in the field, at 8:00 am, fast, tomorrow)?

2. The congregation prayed ( in the church, very hard, last Sunday)

3. The couple moved ( to the reception hall, smartly, after the church ceremony)

4. I shall take the ball( outside, today, stealthily)

5. The candidates go ( to school ,at 7:00am)

6. Take it ( silently, there, now)

7. Our teacher spoke to us( in class, very rudely, this afternoon)

8. The latecomers stayed( all day, quietly, there)

9. Jimmy Katumba played( last Christmas; beautifully< in Collins Hotel)

10. Let’s go (tonight, to the film, last)

**FORMATION OF ADVERBS**

Most adverbs are formed out of adjectives by simply adding “ly”

**Adjective adverb**

Clear clearly pain painful accidental accidentally

Proud proudly sudden suddenly skillful skillfully

Quick quickly anxious anxiously royal royally

Poor poorly grateful gratefully annual annually

Fair fairly careful carefully mental mentally

Cheap cheaply equal equally hopeful hopefully

Clever cleverly practical practically

**Adverbs which are formed from adjectives by adding ‘ly’ after changing ‘y’ to ‘I’**

**Examples**

**Adjectives adverbs**

Angry angrily

Lucky luckily

Steady steadily

Heavy heavily

Lazy lazily

Easy easily

Hungry hungrily

Noisy noisily

Merry merrily

Clumsy clumsily

Other adverbs are formed by dropping ‘e’ and adding ‘ly’

**Adjective adverb**

Humble humbly

Sensibly sensibly

Simple simply

Possible possibly

Terrible terribly

Gentle gently

Miserable miserably

Suitable suitably

Probable probably

Immediate immediately

Some adverbs are the same as adjectives e.g. hard, fast, well, late, early, better, next

**Adverbs formed from nouns**

**Noun adverb**

Active actively

Danger dangerous

Force forcefully

Haste hastily

Nature naturally

Courage courageously

Office officially

Wonder wonderfully

Centre centrally

**EVALUATION**

**Form adverbs from each of the following words**

Horrible, able, nice, bad, cruel, whole, worth, careful, cheer,

**Comparison of adverbs by adding ‘more’ and ’most’**

Bravely more bravely most bravely

Clearly more clearly most clearly

Briefly more briefly most briefly

Easily more easily most easily

Freely more freely most freely

Happily more happily most happily

Loudly more loudly most loudly

Quickly more quickly most quickly

Slowly more slowly most slowly

**EVALUATION**

**Use the correct form of the words in brackets to complete each sentence**

1. That girl writes very…………(slow)
2. I did my work…………..because I was in a hurry. (bad)
3. The headmaster ……….walked into his office. (hurry)
4. It rained…………last night. (heavy)
5. The little girl……………gave a speech. (courage)
6. The basket was……….woven. (beauty)
7. ……..the teacher entered the room the pupils stoop up. (immediate)
8. We were…………..welcomed by the waiter. (warm)

**JUNIOR ENGLISH**

Opposites

Absent – present danger - safety

Accept - refuse deep - shallow

Admit - deny defeat - victory

Ancient - modern difficult - easy / simple

Arrival - departure divide - multiply

Attack - defence drunk - sober

Beautiful - ugly dwarf - giant

Bent - straight empty - full

Bitter - sweet entrance - exit

Blunt - sharp exterior - interior

Bold - timid external - internal

Bravery - cowardice failure - success

Bright - dull false - true

Broad - narrow foolish - wise

Build - demolish found - lost

Capture - release future - past

Cheap - expensive / dear generous - selfish

Coarse - fine guilty - innocent

Contract - expand hatred - love

Coward - hero heavy - light

Hollow - solid humble - proud

Ignorance - knowledge inferior - superior

Junior - senior majority - minority

Noisy - quiet peace - war

Often - seldom opaque - transparent

Permanent - temporary plentiful - scarce

Poverty - wealth punishment - reward

Rough - smooth / calm

**Write the opposites of the underlined words**

1. That perimeter wall will soon be demolished.

2. Some roads in this country are very narrow.

3. The mathematics teacher punished me because I drew a bent line.

4. I denied having stolen Musa’s pen.

5. The sea was calm by the time our ship sailed.

6. The floor of our dining room is very rough.

7. Most girls in our school carry heavy bags.

8. Mathematics is the subject in which I hope for success.

9. My grandmother has constructed a temporary house.

10. Our fore fathers used not to go to school because of poverty.

**OPPOSITES USING PREFIXES**

A prefix is a letter or group of letters added to the beginning of the word to change its meaning.

**Using the prefix - un**

Armed - Unarmed wise - unwise equal - unequal friendly - unfriendly Certain - Uncertain dress - undress

common - uncommon happy - unhappy Healthy - Un healthy

suitable - unsuitable welcome - unwelcome grateful - ungrateful

Popular - Un popular willing - unwilling skilled - unskilled

reasonable – unreasonable True - Untrue reliable – unreliable

conscious - unconscious steady - unsteady

**Using the prefix in**

Capable - Incapable sane - insane visible - invisible

gratitude – ingratitude complete - incomplete direct - indirect

audible - inaudible expensive – inexpensive correct - Incorrect

curable - incurable attentive - inattentive dependent - independent

sincere - Insincere Justice - injustice efficient – inefficient

equality - inequality distinct - Indistinct decent - indecent

offensive - inoffensive sufficient - insufficient

**Using the prefix dis**

Appear - Disappear comfort - discomfort connect - disconnect satisfied – dissatisfied

Loyal - Disloyal believe – disbelieve courteous - discourteous advantage –disadvantage

Honest – Dishonest arm - disarm orderly - disorderly contented – discontented

Agree - Disagree obedient - disobedient allow - disallow arrange – disarrange

Like - Dislike continue – discontinue pleasure - displeasure respectful - disrespectful

**Using the prefix im ...**

Movable - Immovable patient - impatient possible – impossible Proper - improper

Perfect - Imperfect mortal - immortal pure - impure polite - impolite

Penetrate- impenetrable

**Using the prefix il .. , ir...**

Legal - Illegal legible - illegible literate - illiterate

Regular - irregular resistible - irresistible

Responsible - Irresponsible reverent - irreverent

**Using non....**

Sense - Nonsense intoxicating - non – intoxicating

Existent - Non – existent essential - non – essential

**Opposite using suffix ful - less**

Hope - Hopeless care - careless cheer - cheerless

use - useless doubt - doubtless help - helpless

Thoughtless painless harmless pitiless powerless

Shameless restless thankless

**EVALUATION**

**Rewrite the sentences giving the opposites of the underlined words.**

1. Some people are efficient in their work.

2. You don’t have to bring complete homework with you.

3. There is a lot of justice in the judiciary.

4. AIDS is a curable disease.

5. I am capable of driving a car.

6. I would like you to connect that electric wire.

7. Why is your sister always happy?

8. Your house maid is a responsible person.

9. Smoking marijuana is legal in Uganda.

10. People who are not invited to this [arty are welcome.

11. What a useful book a dictionary is!

12. Most drugs are harmful.

13. That forest is penetrable.

14. You gave a thoughtful idea during the discussions.

15. The temptation to taste mother’s cakes was resistible.

**ADVERBIAL CLAUSES/ CONJUNCTIONS**

**The use of Both ........and .......**

Both .....begins a sentence is the subject of the sentences are different.

Both is written in the middle when subjects are similar.

It cannot stand on its own to join two sentences. It works hand in hand with “and”

**Examples**

1. The teacher is going on a tour. The pupils are going on a tour.

Both the teacher and the pupils are going on the tour.

2. The drink was sour. The drink was expired.

The drink was both sour and expired.

3. Mary has a red bag. Sarah has a red nag.

Both Mary and Sarah have red bags.

**EVALUATION**

**Join the following sentences using .......both ......and...... or Begin: Both ......and .......**

1. Peter is a lazy pupil. Mary is a lazy pupil.

2. The fruit was juicy. The fruit was delicious.

3. Stella was a bright pupil. Atim was a bright pupil.

4. The dog drinks milk. The ct drinks milk.

5. She is my guardian. She is my benefactor.

6. Brenda prepared tea. Brenda prepared food.

7. I don’t eat meat. I don’t east fish.

8. My parents were absent. I was absent.

9. Janet was my friend, Sarah was my friend.

10. Musa is going to the market. Ali is going to the market.

**Using Either .......or**

This conjunction is used to show that one of the things will happen. It is used in affirmative sentence.

We begin with Either when the subjects are different use ........either.......or when the subjects are similar.

**Examples**

1. He must laugh. He must cry.

He must either laugh or cry.

2. Sarah may go and watch a movie. Deborah may go and watch a movie.

Either Sarah or Deborah may go and watch a movie.

3. They will win. They will be defeated.

They will either win or be defeated.

**Evaluation**

**Re- write using .........either .......or**

**Begin: Either ........or ```**

1. James will go to church. Alex will go to church.

2. You may go to Namakata next month. I may go to Namakata next month.

3. My friend will attend the party. My enemy will attend the party.

4. He will greet the visitors. He will smile at them.

5. The teacher is coming. The pupils are coming.

6. He can eat. He can drink.

7. I shall play a piano. I shall play a guitar.

8. Daddy drove the car. Mummy drove the car.

9. The pupils will sing. The pupils will dance.

10. The maid must cook supper. Mother must cook supper.

**Using .....neither .............nor**

**Neither ................nor is used to show that none of the two will happen, It is in negative.**

**Examples ( same subjects)**

1. He did not greet the visitors. He didn’t smile at them.

He neither greeted the visitors nor smiled at them.

2. She cannot fly. She cannot swim.

She can neither fly nor swim.

**Different subjects: Begin: Neither**

3. Peter did not greet the visitor. Mary didn’t greet the visitor.

Neither Peter nor Mary greeted the visitors.

4. The teacher has not come. The pupils has not come.

Neither the teacher nor the pupils has come.

**Evaluation:**

**Rewrite using......neither ......nor or begin Neither: ................nor .................**

1. Suzan will not dance. Suzan will not sing.

2. He doen’t eat. He doesn’t drink.

3. He didn’t eat. He didn’t drink.

4. The visitors have not greeted. The hosts have not greeted.

5. He failed mathematics. He didn’t pass.

6. It is not deep. It is not salty.

7. My grand mother cannot read. My grandfather cannot read.

8. They will not win the battle. They will not lose the battle.

9. Tom is not watching T.V Sarah is not watching TV.

10. It couldn’t fly. It couldn’t move.

**Using ..........................and neither......................**

**Used to join negative sentences**

**Examples**

1. They didn’t understand the speech. They did not welcome it.

They didn’t understand the speech and neither did they welcome it.

2. Ntege is not a girl. Lwanga is not a girl.

Ntege is not a girl and neither is Lwanga.

3. Peter does not eat fish. He doesn’t eat meat.

Peter does not eat fish and neither does he eat meat.

**Evaluation**

**Join using......and neither ......**

1. The cars must be allowed to overtake at a traffic jam.

The motorcycles must not be allowed to overtake at a traffic Jam

2. The cats didn’t win the race. The dogs didn’t win the race.

3. Joy didn’t understand this topic. I didn’t understand this topic.

4. My father will not go to town. My mother will not go to town.

5. My grandmother doesn’t know how to read. She doesn’t know how to write.

6. Mother has not cooked food. The maid has not cooked food.

7. We couldn’t go to the cinema. John couldn’t go to the cinema.

8. The headmaster will not punish us. The teachers will not punish us.

9. We didn’t go to the village. Our parents didn’t go to the village.

10. They cannot walk. They cannot run.

**Using ....................and so ...................**

**Used in affirmative sentences**

**Examples**

1. I was punctual for the lesson. Alice was punctual for the lesson.

I was punctual for the lesson and so was Alice.

2. Joel will understand this lesson. Alice will understand this lesson.

Joel will understand this lesson and so will Alice.

3. My uncle is a bachelor. He is a bachelor.

My uncle is a bachelor and so he is.

**Evaluation**

1. My grandmother told an interesting story. My grandfather told an interesting story.

2. He was very intelligent. The bursar was also intelligent.

3. I may go to Namakata primary school. You may go to Namakata primary school.

4. Ntege is a boy. Lwanga is a boy.

5. Maria is a singer. Aneet is a singer.

6. All Kenyans speak Swahili. All Tanzanians speak Swahili.

7. We may go to Gulu. We may go to Lira.

8. He could run. He could swim.

9. Mary is a smart girl. Joan is a smart girl.

10. Jane had ten sweets. Rhoda had ten sweets.

Using: Although

**Used to show both negative and positive in a sentence**

**Examples**

1. She is beautiful. She is unmarried.

Although she is beautiful, she is unmarried.

2. She is a Ugandan. She doesn’t speak Uganda language.

Although she is a Ugandan, she doesn’t speak Ugandan language.

**Evaluation**

Re- write using 1. .................although .......................

2. Begin: Although...........................

1. She ailed her exams. She copied.

2. Some Africans are poor. They work hard.

3. They are sure of their answers. They are wrong.

4. They were sincere. Nobody believed them.

5. James lives near the church. He seldom go to church.

6. Bo body helped them. They were friendly.

7. He had good behavior. He was dull in class.

**Using :….too…….to…….**

Too……..to……is used in sentences with a negative idea

Examples

1. That lady is very fat. She can’t run

That lady is too fat to run.

1. This story is very long. One cannot tell it in ten minutes.

This story is too long for one to tell it in ten minutes

**Activity**

Ref: Mk precise English grammar pg 137 – 138 task 42 numbers 1 – 15

**Using ….because…**

This conjunction is used with similarities or sentences whose ideas or meaning agree

Because should be connected to the clause whose action happens or happened first

Examples

1. Sanyu is clever. Sanyu passed PLE.

Sanyu passed PLE because she is clever.

1. The girl was poor. She had one dress.

The girl had one dress because she was poor.

**Activity**

**Use ‘because’ in these sentences**

1. Birungi is beautiful. She passed the beauty contest
2. Paul ran his fastest. Paul was the first in the race
3. Onyait was brave. Onyait killed a lion
4. Walakira know English very well. He can speak it for a long time

**Using so……..that…/ such a…..that….**

Example

1. He was rich. He bought the whole village.
2. He was so rich that he bought the whole village
3. He was a very popular gentleman. He was elected the president
4. He was so popular that he was elected the president
5. He was a popular gentleman
6. He was elected the president
7. He was such a popular gentleman that he was electd the president
8. She was an old woman
9. He could not walk on her own
10. She was such an old woman that she could not walk on her own

**Activity**

Mk precise primary English book 5 pg 127 task 36

**Prefer to**

The word prefer is used to mean that one likes something ‘more than’ it is used when one has to choose one item form among others

**Examples**

1. Mike likes rice more than millet
2. Mike prefers rice to millet
3. I like English more than mathematics
4. I prefer English to mathematics

**Activity**

Mk precise primary English bk5 pg 143 task 47

**LESSON 18**

**ASPECT: COMPREHENSION**,

**VEHICLE REPAIR**

**Vocabulary practice**

**New words**

Vehicle garage screw jerk

A break down truck mechanic spare parts

Repair pump tow

Engine puncture toolbox

Flat tyre rubber solution tube

A fuel pump tyre a screw driver

Using the vocabulary words to construct meaningful sentences

structures

a) Using; have/has

B) Using : must/mustn’t

Guided composition

Mk primary English new curriculum bk5 pg 12 composition 1

Passage

Mk primary English bk5 pg 10 (Sennyonga’s second hand vehicle)

Poem

Picture composition

My small motor car pg 24

Guided conversation

Kapere and his bicycle pg 30

Print media

Vocabulary

Advertisement, announcement, article, back page, brochure, reporter, story, column, columnist, crossword, editor, editorial, front page, puzzle, journalist, magazine, media, newsletter, newspaper, pull out, cartoon

Using the vocabulary words to construct sensible sentences

Passage

The media house

Pg 48 Mk primary English bk5 new curriculum

Jumbled sentences

Pg 52 Mk primary English bk5 new curriculum

Advertisement

Mk primary English bk5 old curriculum pg 62

Poem

The media house Mk new curriculum pg 46

Travelling

Vocabulary practice

About, fare, speed, cycle, passenger, coach, seat, conductor, luggage, reduce, travel, by, ticket, destination, arrive, departure, further, taxi, reach

Using the vocabulary words to construct meaningful sentences

Passage

My journey to Arua Mk primary English bk5 new curriculum pg 70 – 71

Dialogue

Waiting at the clock Mk primary English bk5 new curriculum pg 65 – 66

Travel chart

Mk primary English bk5 new curriculum pg 68

**BRIGHT ADAMS JUNIOR SCHOOL P.5 ENGLISH LESSON NOTES TERM II 2018**

**FUTURE SIMPLE TENSE**

It expresses what will happen in future/ tomorrow.

Helping verbs are – will and shall

I shall it will

We He will

She

They

**Affirmative sentences**

**Examples**

1. We shall help you.

2. You will pay for this.

3. He will bring a car.

**Affirmative sentences can change to negative sentences.**

Shall not in short is shan’t

Will not in short is won’t

**Examples**

1. We shan’t help you.

2. You won’t pay for this.

3. He will not bring a car.

**Re- write the sentences in negative**

1. The woman will sell her car.

2. He will play very well.

3. We shall win the match.

4. I shall come to school tomorrow.

5. He will tell you everything.

6. The child will cry in the room.

7. My father will go to Kampala.

8. They will bring soft drinks,

9. She will sing a nice song.

10. I shall wash my feet.

**Interrogative sentences**

**Affirmative sentences can be changed to interrogative.**

**Examples**

1. The dogs will run on the ground.

2. Will the dogs run on the ground?

2. We shall write a good letter.

Shall we write a good letter?

3. She will break the mirror.

Will she break the mirror

**NB: The helping verb begins the sentence while writing in interrogative.**

**Evaluation: Change to interrogative**

1. I shall do my work.

2. Joyce will write on the blackboard.

3. My father will know this.

4. She will keep her promise.

5. Your mother will come to school

6. They will put you in trouble.

7. This ;ay will stay here.

8. We shall go there.

9. They will help you in this game.

10. I shall go to his house.

**QUESTION TAGS**

**Examples**

1. She will clean the classroom
2. We shall collect the rubbish
3. The dog will guard our home

**EVALUATION**

**SUPPLY SUITABLE QUESTIONS TAGS**

1. He will take an oath, …………?
2. They will fix the poles, ………….?
3. Angella will arrange the flowers, ……..?
4. We shall call him, ………..?
5. The baby will cry, …………?
6. I shall go to school, ……….?
7. The child will tear the book, ………..?
8. We shall talk to him, ………..?

**ACTIVE AND PASSIVE VOICES**

Sentence is said to be in the active voice when it starts with the subject (doer)

On the other hand, sentences in the passive voice begin with the object (receiver)

The active can be changed to the passive if the active form of the sentence has both a subject and an object

**Example**

Annet play (cannot be change)

The passive voice is possible in all tenses. However if the subject in the active voice is not specific, we don’t mention it in the passive voice.

Someone beat Amos (active)

Amos was beaten . (passive)

**THE PRESENT TENSES**

**The present simple**

The passive form of the present simple tense is used in the order below

Is, am , are plus a past participle verb

Example

1. I love Judith (active)

Judith is loved by me. (passive)

1. Cars carry people. (active)

People are carried by cars. (passive

1. The doctor warns me against smoking cigarettes. (active)

I am warned against smoking cigarettes by the doctor (passive)

**Present continuous**

The passive form of the present continuous tense is used in the order below

Is being, am being, are being + a past participle verb

**Examples**

1. I am eating food. (active)

Food is being eaten by me. (passive)

1. Cars are carrying people. (active)

People are being carried by cars. (passive)

1. The doctor is warning me against smoking cigarettes (active)

I am being warned against smoking cigarettes by the doctor (passive)

**THE PRESENT PERFECT**

The passive form of the present perfect tense is used in the order below

Has been, have been + a past participle verb

Examples

1. I have eaten food. (active)

Food has been eaten by me. (passive))

1. Cars have carried people. (active)

People have been carried by cars. (passive)

1. The doctor has warned me against smoking cigarettes (active)

I have been warned against smoking cigarettes by the doctor. (passive)

**Activity**

**Change these sentences into passive**

1. Akello learns music
2. The dog hates bones
3. He sleeps on the bed
4. Kato plays football
5. Lions eat other animals
6. I am writing a letter
7. They are carrying firewood
8. Moses is repairing a radio
9. She sis playing netball
10. They are beating me
11. He has cleaned the table
12. Ugandans have built nice houses
13. Mary has written a letter
14. We have learnt English
15. I have broken the cup

**THE PAST TENSE**

**THE PAST SIMPLE**

The passive form of the past simple tense is used in the order below; was, were + a past perfect verb

Examples

1. I loved Judith (active)

Judith was loved by me (passive)

1. Cars carried people (active)

People were carried by cars. (passive)

1. The doctor warned me against smoking cigarettes (active)

I was warned against smoking cigarettes by the doctor. (passive)

**THE PAST CONTINUOUS**

The passive form of the past continuous tense is used in the given order; was being, were being + a past perfect verb

Examples

1. I was eating food. (active)
2. Food was being eaten by me. (passive)
3. Cars were carrying people (active)
4. People were being carried by cars. (passive)
5. The doctor was warning me against smoking cigarettes (active)
6. I was being warned against smoking cigarettes by the doctor. (passive)

**THE PAST PERFECT**

The passive form of the past perfect tense is used in the order below; had been + a past participle verb

Examples

1. I had eaten food. (active)
2. Food had been eaten by me. (passive)
3. Cars had carried people (active)
4. People had been carried by cars. (passive)
5. The doctor had warned me against smoking cigarettes (active)
6. I had been warned against smoking cigarettes by the doctor (passive)

**Activity**

**Change these sentences in passive**

1. He ate food
2. James broke the glass
3. The boy ate an orange
4. They greeted us
5. He stole our books
6. Abraham put more salt in the sauce
7. The cat was eating rats
8. They were repairing his bed
9. That woman was telling us some news
10. Jane had seen the robbers
11. It had taken the chick
12. I had hidden it under the mat
13. They had found him in the kitchen
14. Ssemanda had played football.

**THE FUTURE TENSES**

**THE FUTURE SIMPLE TENSE**

The passive form of the future simple tense is got from the order below ; will be + a past participle verb

**Examples**

1. I shall eat food. (active)
2. Food will be eaten by me. (passive)
3. Cars will carry people (active)
4. People will be carried by cars. (passive)
5. The doctor will warn me against smoking cigarettes. (active)
6. I shall be warned against smoking cigarettes by the doctor. (passive

**Activity**

**Change these sentences into passive**

1. They will take the ball
2. He will beat us
3. We shall carry it
4. I shall answer many questions
5. I will learn science
6. They will guide us
7. They will sweep the class
8. Okot will play football tomorrow

**Change the following into active**

1. Meat is eaten by lions
2. The song is sung by children
3. A novel is being read by Annet
4. Music is being listened to by my father
5. Prizes have been given to us by Tom
6. We were greeted by Ali
7. A chair has been sat on by a boy
8. I was asked to come with a pen by Dianah
9. The brief case was being closed by Simon
10. He was being sent to a boarding school by his mother
11. The ball will be taken by Moses
12. She will be punished by the teacher

**ASPECT: ADJECTIVES**

**Adjectives are words which describe a noun**

**Examples**

Young , new, old , blue, beautiful , big, tall , short, long , loud , talkative , colourful , handsome, orange, dangerous.

**Forms of Adjectives**

1. Positive degree - ( one)

2. Comparative degree - Compare two things / people

( add –er or more to the adjectives)

3. Superlative degree - Compares more than two.

( add – est, most to the adjectives)

1. **Add “r” or “ st”**

fine finer finest pure purer purest

safe safer safest idle idler idlest

wide wider widest simple simpler simplest

rude ruder rudest brave braver bravest

large larger largest wise wiser wisest

white whiter whitest

2. **Double the last consonant**

big bigger biggest hot hotter hottest

thin thinner thinnest glad gladder gladdest

wet wetter wettest sad sadder saddest

fat fatter fattest

3. **Add ‘er” or “ est”**

tall taller tallest

small smaller smallest

thick thicker thickest

high higher highest

young younger youngest

long longer longest

strong

hard

fast

clear

new

rich

clean

poor

sweet

deep

few

soft

cold

quick

clear

proud

near

loud

old

short

clever

4. **Adjective which end with ‘y’ drop ‘y’ add ‘ier” in comparative degree then “iest “in superlative degree**

happy happier happiest

ugly uglier ugliest

lazy lazier laziest

heavy heavier heaviest

dry drier driest

busy busier busiest

easy easier easiest

dirty

early

pretty

healthy

merry

**Adjectives that take ‘more’ and ‘most’**

1. beautiful more beautiful most beautiful

2. careful more careful most careful

3. comfortable more comfortable most comfortable

4. ignorant more ignorant most ignorant

5. wonderful more wonderful most wonderful

6. handsome more handsome most handsome

7. interesting

8. industrious

9. studious

10. dangerous

11. difficult

**IRREGULAR ADJECTIVE**

**These change the original word.**

1. bad worse worst

2. good better best

3. well better best

4. far further furthest

5. little less least

6. much more most

7. many more most

8. ill worse worst

9. far farther farthest

10. old elder/older eldest /oldest

**EVALUATION**

**Use the correct degree of adjective given in the brackets to complete the sentences**

1. Micheal is the ......................................boy in our class. ( good)

2. Joseph is .........................................than Richard. ( heavy)

3. The box is .................................than that box. ( light)

4. My house is .................................than yours. ( near)

5. Which is the ..................................... building in Nairobi. ( tall)

6. Peter is ....................................than George. ( weak)

7. Mary is the ................................girl in our class. ( short)

8. Please give me ................................milk. ( much)

9. What is the ...............................news. ( late)

10. I came ..................................than you. ( early)

11. He is the ................................of the twins. ( old)

12. Show is the ................................cloth. ( fine)

13. This flower is .........................than that flower. ( beautiful)

14. His mother is ..............................today. ( well)

15. James is the ..........................................of the two boys. ( clever)

**ORDER OF ADJECTIVES**

1. In the order of adjectives, the adjectives have to come before the noun they are describing while in relative pronoun and “and’ the adjectives come after the nouns they are describing.
2. In the order of adjectives, the number or quantity adjective comes first while in relative pronoun and “and” the number of quantity adjective comes before the noun it is describing.
3. In “relative pronoun” and “and” when the answer has poor ending (incomplete) you create your own ending to have complete meaning.
4. In use of ‘relative pronoun” and “ad” we separate the adjectives with commas while in the order of adjective we don’t put commas. This is because the commas are used only when the last two adjectives are separated with “ and”

**Order of adjectives**

Number / opinion/ shape / size / age / colour / origin/ material . NOPSHACOM

**Examples**

1. One smart small young brown Ugandan girl.

2. Several good wide new black Korean T.V sets.

3. Three stubborn short horned new brown bullocks

**EVALUATION**

**Join the following sentences in order of adjectives without using “and”**

1. I solved numbers. They were good. They were fifteen.

2. The tree is large. It is green. It is wonderful. It was cut down.

3. She brought children. They were young. They were black. They were ignorant. They were slim.

They were from Uganda. They were several.

4. My father took a man. The man was brown. The man was from India.

The man was handsome. The man was fat.

5. The ladies are hardworking. They are ten. They are brown.

They are old. The are red – eyed. They are from Zaire.

6. The priest gave him stones. They were indigo. They were gracious. They were many.

7. He was given a shirt. It was red. It was cotton.

It was made from India. It was new. It was big.

**The use of positive degree with**

**as ....................as, not so ..................as**

**as ..............................as**

This as ...............as conjunction is used when comparing things or people in affirmative sentence.  
as ………as……… is used to illustrate the equality of the nouns being compared.

**Examples**

1. James is hardworking. Sarah is hardworking.

James is as hardworking as Sarah.

2. My sister is proud. I am also proud.

My sister is as proud as I am.

**NB.** After as ..........as , any pronoun used should be in a nominative case. e.g. I, they, she, he, it, you

Not so .....................as

It is used when one sentence is negative and another is am affirmative sentence.

In negative sentences we say .................not so .......as .......

**Examples**

1. This room is big. That room is not big.

That room is not so big as this one

2. I am not old. He is old.

I am not so old as he is

3. My father is tall. My mother is taller.

My father is not so tall as my mother.

**EVALUATION**

**Re – write using..............as................as or ............not so .................as**

1. Simiyu is very clever. Basibala is very clever.

2. Awino is very brave. She is like a lion.

3. Sanyu is bright. Her sister betty is brighter.

4. Wamanga is kind. I am also kind.

5. Mary is ten years old. Suzan is ten years old.

6. Wetaya is very fast. Maiso is very kind.

7. My hen lays 5 eggs in a week. James’ hen lays 3 legs in a week.

8. Weneloba is a cunning boy. He is like a fox.

9. The boys were active. The girls were more active.

10. Wesonga is tall. Wanjusi is taller.

**RELATIVE PRONOUNS**

These pronouns are used in clauses which are related i.e. relative clauses

In most cases they are used as conjunctions (joining words). They include; who, whom, whose, which, and that

How to use relative pronouns

Who refers to people

Which refers to animals or things

That refers to people, animals or things

Whose and whom are used to refer to people

**Examples**

1. John is the one who took your pen yesterday. (person)
2. That dog is the one which barked at us. (animal)
3. I cannot remember the book that I promised to lend you. (thing)
4. I met the Dutch whose name was Adams. (person)
5. The girl whom you thought could get a first grade is pregnant. (person)

**Activity**

Choose the correct pronoun from the brackets to complete the sentences correctly

1. From ……….bookshop did you buy that book? (what, which, that)
2. That is the man…….cat was stolen. (who, which, whose)
3. May you suggest a day………we can meet. (that, which , when)
4. What is the name of the school ……your brother goes to? (which, where, that )
5. Did he tell you about the proposal……..he wanted to present to the management committee? (that, which, when)
6. Those are the desks …….legs broke off. (who, whose , which )

**Activity**

**Complete these sentences with the correct pronoun**

1. That is the teacher…….teaches us mathematics
2. This is the cow………….we bought from Kenya.
3. …………car was stolen?
4. I injured my leg ……….got broken last week.
5. Denis is a careless pupil. ……….is hated by everyone
6. I saw the man…………saved the girl form the lion

**Using relative pronouns as conjunctions**

**Examples**

1. The man was taken to the hospital. The man was seriously injured
2. The man who was seriously injured was taken to the hospital
3. The rabbit was later trapped. The rabbit had run very fast.
4. The rabbit which had run very fast was later trapped.
5. The soldier was badly hurt. The children saw him.
6. The soldier whom the children saw was badly hurt.
7. The cow died. Its tail was cut off.
8. The cow whose tail was cut off died

**Activity**

**Join the sentences using relative pronouns**

1. The house girl was taken away. The house girl was a fool.
2. The money was stolen. The money was in the desk.
3. The sweepers will sweep again. The sweepers swept yesterday.
4. The puff adder was running down the river. The pug adder was killed
5. The lazy boy will do all the punishment alone. The lazy boy is lame
6. The lady was carrying a beautiful bag. The lady was beaten
7. The tree had very good timber. The carpenter cut it
8. The hen was eaten by a wild cat. The owner was looking for it
9. The pupils had done the corrections. The teacher didn’t beat them
10. The twins were both born alive. The twins were born last evening
11. He went to the furniture mart. You told him about it
12. Our teacher has a car. Our teacher comes from Tororo.

**Using as….as../ not as…….as……….**

This conjunction is used when comparing two things or people

After………as…….as, any pronoun used should be in the nominative case e.g. I, he, you, they, wet etc

Examples

He is big. I am big. He is as big as I am

I am old. He is also old. I am old as he is

**As……….a…..**

This conjunction can also be used in negative sentences. In negative sentences we say: ….not as……..as….

Examples

I am rich. He is richer. I am not rich as he is

Mercy is educated. You are more educated. Mercy is not as educated as you are

Activity

Mk precise bk5 pg 145 task 48

**The…….the …….(double comparatives)**

We use two clauses where each starts with ‘the’ followed by an adjective in comparative degree. A comma should be used when writing sentences with double comparatives

**Example**

As you go high, it becomes cool

The higher you go, the cooler it becomes

When you grow old, you become wise

The older you grow, the wiser you become

**Activity**

1. If you do little work, you will get little money.
2. When they give us more food, we shall become happy.
3. If the chairs are comfortable, they will have a big market
4. When the shop grew bigger, the workers became busy
5. When the sun shines more, it becomes hot
6. If you come early, you will be busy
7. As you stood far, you became small

**Enough….to**

Examples

1. He ran fast. He won the race
2. He ran fast enough to win the race
3. The wind was very strong. It blew off the roof of his house
4. The wide was strong enough to blow off the roof of his house
5. The shopkeeper was very foolish. He did not save any money.
6. The shopkeeper was not wise enough to save any money
7. Tom is very young. He can’t go to school.
8. Tom is not old enough to go to school

**Activity**

**Join the following sentences using ‘enough’**

1. Oketcho is very strong. He will lift it alone.
2. Diana is clever. She will get a first grade.
3. Masaka is a fertile district. All bananas Uganda needs can be grown in Masaka district.
4. This food is not ready. We cannot eat it
5. He was weak. He could not lift the bag.
6. Musoke is short. He cannot touch the roof
7. The man is poor. He cannot buy a car

**In order to/ so as/ so that**

These three conjunctions are delt with together because they are used in the same way and thus have the same meaning. They are used when one wishes to taste the reason for doing something

**Examples**

1. He washes car in order to get school fees
2. He washes cars so as to get school fees
3. He washes cars so that he can get school fees
4. He washed cars so that he could get school fees
5. She hid her face so that she could not be seen

**Activity**

Mk precise bk5 pg 142

**CONDITIONAL SENTENCES (IF CLAUSE)**

Conditional clauses are used to express conditions. They are also called if clauses. They are called conditional clauses because of a certain condition is supposed or imagined to be fulfilled in order for an action to take place. Conditional clauses contain the word if or unless

Example

John will be pleased if he passes exams (It means that John will be pleased only when he passes exams)

Conditional sentences are divided into three; conditional clause I (if 1) conditional clause 2 (if 2), conditional clause 3 (if 3)

**Conditional clause I (if 1)**

Conditional clause I expresses that something is going to happen or chances for it to happen are high if a certain condition is fulfilled

Examples

1. If Mary buys that skirt, she will become smart.
2. I shall fall sick if I eat dirt.
3. If your father gives you school fees, you will go to school

**Guidelines on the use of if 1**

We use the present simple tense in the if clause and the future simple tense in the main clause

Example

1. If I get money, I shall buy a radio
2. Mother will punish us if we don’t complete the work
3. If Juma comes, we shall go together

The condition to be fulfilled is contained in the if clause and the action to take place is in the main clause

We use the present tense in the if clause and the imperative in the main clause when telling or advising a person to do something because of a relevant condition

**Examples**

1. if he comes, tell him I have gone to town
2. if you are sick go to the hospital
3. if you become thirsty, get a cold drink

When talking or asking about facts or general truths we use the present tense in both the main and if clauses

**Examples**

1. If you heat metals, they expand
2. If you uproot a plant, it dries up
3. If I have a bad dream, I experience the opposite

When an if clause comes first put a comma after it and before the main clause

**Example**

1. If he comes, I shall go

When the main clause comes first there is no need of a comma

**Example**

I shall go if he comes

At times the word ‘when is used instead of ‘if’ once we are sure that the condition will be fulfilled

**Example**

When I die, I will rot

When mercy fails, force is applied

**Activity**

**Use the words in the brackets to complete the following sentences in if I**

1. If you get a first grade, your father……….for you a bicycle. (buy)
2. The dog will eat the bone if it…………it (get)
3. ………..happy if I learn how to ride a bicycle. (be)
4. The children …………….by the rope if they see a tree to tie it on. (swing)
5. If our father …………now, we shall be in trouble. (remember)
6. We……a wheelbarrow if we are refusing to study hard. (push)
7. If that girl has been behaving like that, the headmaster ……….her. (expel)
8. They ……..this exercise if they get time. (finish)
9. If I receive your letter, I ….it tomorrow. (deliver)
10. If you come early, you …………with no punishment. (pass)
11. If the plane……….(come) we …………(go)
12. Geoffrey………(find) you her if you……..(delay)
13. I ………..(tell) him if he …….(come)
14. I …………….(not give) him the book if he doesn’t pay for it.
15. If he……………..(go) his father will be sad.

Conditional clause 2 (if clause 2)

This clause is used to express a condition which is impossible and whose result we are only imagining.

Unlike in if 1 where there is a possibility of the condition being fulfilled in if 2 one is just imagining what would happen if the impossible came true.

In if 2 the condition cannot be fulfilled at all it is just day dreaming

Example

1. If I were you, I wouldn’t eat posho. (It is impossible for one to turn into someone else)
2. If I were God, I would leave man to live forever. (it is impossible for me to become God)

**Guidelines on the use of if 2**

We use the past simple tense in if clause and a would + a verb in the present tense in the main clause

Example

If I were a king, I would not look poor.

We often use ‘were’ instead of ‘was’ in order to put emphasis on the nature of the impossibility

Example

If he were a snake, he would bite all sinners.

While in the affirmative it remains ….as…….as……

Activity

Ref. Mk precise English grammar pg 145 task 48 numbers 1 – 10

**ABBREVIATIONS AND CONTRACTIONS**

**An abbreviation is a short form of a word. Full stops are used in abbreviations**.

Ag. – acting Mt. mount

am - before noon ( ante meridiem) O.K - all correct

Ave. - Avenue P.S.V - public service vehicle Co. - company Rev. - Reverend

C.O.D - cash on delivery Sec - secretary

Dr. - Doctor Vs. - Versus

i.o.u - I owe you Yr. Year

Ltd - Limited PAYE - Pay as you earn

Ms. - Miss Capt - Captain

P.P - On behalf of P.T.O - Please Turn Over

P.m - afternoon ( Post meridiem) C.A.O - Chief Administrative officer

P.O - Post office L.C - Local council

R.I.P - Rest in peace NARO - National Agricultural ResearchOrganization

R.S.V.P - reply if you can please ( Please reply)

Rd. - road St. Saint

U.P.E - Universal Primary Examination W.e.f - with effect from

URA - Uganda Revenue Authority Viz - namely

Ref. Reference Via - by way of

abbr - abbreviation Cf. – compare

a/c - account do - the same

assn - association dept - department

asst - assistant e.g. - exempli gratia ( for example)

C/o - care of Govt - Government

i.e - that is ( id est) Jr. Junior

**CONTRACTION**

**These are also short forms. A word is shortened using an apostrophe**

Is not - isn’t It is - it’s I would - I’d

Cannot - can’t never - ne’ er ought not - oughtn’t

Will not - won’t he is - he’s Do not - don’t

Has not - hasn’t he will not - he won’t should not - shouldn’t

Have not - haven’t I am - I’m over - o’ er

Shall not - shan’t I have - I’ve of the clock - o’clock

Must not - mustn’t I will - I ‘ll wherever - where’re

That is - that’s they will - they’ll you will - you ‘ll

There is – there’s we have - we’ve you are - you’re

Let us - let’s All is - all’s

**EVALUATION**

**Abbreviate the following words.**

Thursday .................................... Road - .......................

August ............................. By way of - ...............................

Mistress ..................................... That is ................................

Limited .....................................

Gentlemen ...................................

afternoon .................................

Please Turn over ............................

**Write in full**

U.N.E.B ................................ R.S.V.P - ................................

M.P - ............................ Capt - ......................

I’m - ............................... B.C - ...............................

U.P.E - ............................... There’s - ................................

**Complete each sentence by using the correct word chosen from the brackets**

1. A dog wags .............................tall when .........................pleased. ( its , It’s)

2. The teacher asked .........................fountain pen it was. ( who’s , whose )

3. I .....................................got your cricket ball. ( haven’t, ain’t )

4. Tony thinks ............................... a lovely little puppy. (its, it’s )

5. That’s the boy ..............................father was injured. ( who’s , whose)

6. I hope you .....................................wet. ( ain’t , aren’t )

7. We want to know ..............................to pay for the outing. ( who’s , whose )

8. Robert ...............................like swimming. ( doesn’t , don’t)

9. ................................. to say ......................fault it is? ( who’s whose )

10. They ...................... come to our house very often now. ( doesn’t , don’t )

**ASPECT: JUNIOR ENGLISH**

**SIMILES**

When a description of something or someone is made in comparison to something else. We call that kind of comparison a simile. They shoe special characteristics and qualities of things.

**Examples**

As ageless as the sun as high as heaven

As agile as a money as hot as fire

As alike as two peas as ignorant as a child

As angry as a wasp as impatient as a lover

As bare as a stone as innocent as a lamb

As black as coal as jealous as a cat

As blind as a bat as large as life

As busy as a bee/ants as lazy as a toad

As bright as a new silver coin as light as a feather

As brittle as a glass as loud as thunder

As brown as a berry as low as the grave

As careless as wind as mean as a miser

As clean as a new pin as merciless as a grave

As cold as ice as abstinate as a mule

As cool as cucumber as old as the hills

As crafty as a fox as patient as job

As cunning as a fox as peaceful as sleep

As cruel as death as playful as a kitten

As cunning as a fox as poor as a church mouse

As dead as a door nail as proud as a peacock

As deaf as a door post as quick as lightening

As deep as the sea as quite as a mouse

As delicious as a forbidden fruit as rare as a blue rose

As dry as a bone as round as an orange

As dump as a mouse as secret as a thought

As easy as ABS as lifeless as stones

As empty as space as serious as a doctor

As fast as light as sharp as a razor blade

As fat as a pig as sick as a dog

As flat was a pancake as silent as a grave

As foolish as a calf as slow as a snail

As flesh as daisy as sober as a judge

As friendly as a puppy as solid as rocks

As glad as a fly as steady as a rock

As gloomy as night as strong as an ox

As good as gold as sweet as honey

As graceful as the swam as swift as a deer

As green as grass as tall as a giant

As hairless as an egg as timid as a rabbit

As hairy as a gorilla as thick as thieves

As handsome as paint as thin as a stick

As happy as a king as ugly as a sin

As harmless as a dove as useful as a cow

As hasty as a dove as voiceless as a tomb

As heavy as lead/elephant as warm as wool

As weak as water

As wise as an owl

As white as snow

As wise as king Solomon

**EVALUATION**

**Complete the following exercise**

1. as .....................as an owl. 11. as green as ..........................

2. as sweet as ........................ 12. as busy as ...............................

3. as soft as ................................... 13. as black as ................................

4. as sharp as ................................. 14. as ....................as a horse

5. as ..............................as a feather. 15. as warm as ..................................

6. as ...........................as a kitten 16. as ..............................as a grave.

7. as fat as ...................................... 17. as ............................as a giant.

8. as ........................as lighting 18. as happy as .......................... .

9. as blind as ................................. 19. as .............................as a snail.

10. as ..............................as ice 20. as hot as .............................. .

**COMPREHENSION**

**UNIT 7 AND 8: LETTER WRITING**

**Vocabulary practice**

Invite, letter, envelope, address, card, occasion, party, guest, host, hostess, ceremony, affection, sincerely, yours, dear, sender, receiver, writer, from, reply

Using vocabulary words to construct meaningful sentences

Reading a letter and answering questions about the letter Mk primary English Bk5 new curriculum pg 96

Writing personal leters

Steps to follow (using block method)

Writer’s address

Date

Greeting / salutation e.g. Dear John

Body (message to the addressee)

Ending the letter e.g. your friend,

Signature (name of writer in small letters)

Rearranging the jumbled letter (Mk primary English bk5 new curriculum pg 99 – 100)

Reading and answering questions from an invitation letter. Mk primary English book 5 old curriculum pg 163

Designing an invitation card

**Communication**

**The post office**

**Vocabulary**

Aerogramme, box rental, directory, letter box, letter slot, mail, money order, package, parcel, private box, post, post office, registered letter, stamp, telegram

Using the vocabulary word to make meaningful sentences

Passage

What is a post office? (Mk bk5 new curriculum pg 114 – 115)

structures using; ……needn’t ……/need to……

**Guided composition**

Posta Uganda pg 116

**Dialogue**

Do we still need the post office? MK bk5 new curriculum pg 111

**The telephone**

**Vocabulary**

Airtime, airtime card, call, fixed line, handset, landline, load, mobile telephone, network mast, receiver, subscribers, identification, module, sim card, teleface, telephone, telephone directory, tokens

Using the vocabulary words to construct sensible sentences

Structures: Using : …..enough …..to

**Passage**

The telephone Mk bk5 new curriculum pg 130

**Poem**

Mk bk5 new curriculum pg 149

**Guided composition**

A mobile phone Mk bk5 new curriculum pg 132

**Dialogue**

The mobile phone Mk bk 5 new curriculum pg 129 – 130

**The internet**

**Vocabulary**

Email, website, surfing, computer, internet, google, internet explorer, delete, save, open, scroll, search, log, folder, service fee, page, sign in, sign out, café, virus, yahoo, search engine

Using the vocabulary words to construct sensible sentences

Structures: Using What……? Using: too…to, using: in order

**Passage**

The internet Mk bk5 new curriculum pg 152 – 153

**Guided composition**

The internet Mk bk5 new curriculum pg 154

Reading the email message and answering questions Mk bk5 new curriculum pg 150

**CULTURE**

**NATIONALITIES**

**Vocabulary**

American, Brazilian, English, French, German, Indian, Rwandan, Kenyan, Japanese, Scottish, Sudanese, Tanzanian, Ugandan

Using vocabulary words to construct meaningful sentences

Structures: Using ……because, using: ….is/was, using: …as…

**Passage**

A feast for all nationalities MK bk5 new curriculum pg 163 – 164

**Guided conversation**

Mk primary bk5 new curriculum pg 167

**Dialogue**

Mk bk 5 old curriculum pg 145

**Languages**

**Vocabulary**

Chinese, English, French, German, Ibo, Lumasaba, Ateso, Kinyarwanda, Kiswahili, Latin, Lingala, Luo, Runyakitara, Luganda, Lusoga,

Using the given vocabulary to make sentences

Passage

The concert day MK bk5 new curriculum pg 182 – 183

Guided composition

Mk bk 5 new curriculum pg 184

Dialogue

Learn many languages Mk bk 5 new curriculum pg 181

**P.5 ENGLISH LESSON NOTES TERM III 2018**

**SPEECHES**

There are two types of speeches; direct and indirect speech

**Direct speech**

In direct speech, one reports using the actual words of the speaker

It is made of two parts

The speech tag

The actual words used. These actual words used always start with a capital letter and must be between quotation marks

Examples

I said(speech tag) – “I am learning English now” (actual words)

He says speech tag) – “Don’t eat this food” (Actual words)

**INDIRECT SPEECH**

In indirect speech one reports but not using the actual words of the speaker.

It is made of three parts

The speech tag

The conjunction joining word)

The said words

**Examples**

1. I said that I was learning English then.
2. She says that she eats meat every Sunday
3. We can change from direct speech to indirect speech and vice versa

Words that change when changing from direct to indirect speech

**Direct Indirect**

This that

These those

Here there

Now then

Ago before

Today that day

Tomorrow the next day/ following day

Yesterday precious day/ day before

Last previous

Come go

Bring take

I he/she

We they

My his/her

Our their

Am was

Will /shall would

May might

Can could

You her/they/him

Are were

Must had to

Must not was not to/ were not to

Me her/him

Us them

NB: If a word is already given in its changed form, you leave it as it is i.e. take remains ‘take’

Changing statements from direct to indirect speech

Reporting statements in present simple tense

If the speech tag is in present simple tense, the said words should also remain in present simple tense

Examples

Direct: He says, “I eat meat everyday”

Indirect: He says that he eats meat every day.

Direct: They say “we drink water everyday”

Indirect: They say that they drink water everyday

Examples

If the speech tag is in past simple tense. The said words should be changed to the past simple tense

1. He said “I eat meat every day” (direct)

He said that he ate meat every day (indirect )

1. They said :we drink water every day. (direct)

They said that they drank water every day

**Activity**

**Change the sentence below to indirect speech**

1. She says, “I bring this pen every Tuesday.”
2. The girls say, “We dress well every Monday.”
3. The man says, “these wasps sting us every day”
4. The patients say, “we don’t take medicine everyday
5. She said, “I bring this pen every Tuesday
6. The girls said, “we dress well every Monday”
7. The man said, “these wasps sting us every day
8. The patients said, “we don’t take medicine every day

**PRESENT CONTINUOUS TENSE**

Present continuous tense changes to past continuous and “now” changes to “then” “today” changes to “that day”

**Examples**

1. He said, “I am drinking this water now. (DIRECT)

He said that he was drinking that water them. ( INDIRECT)

2. “I am taking these books home now,” Jane said. (INDIRECT)

Jane said that she was taking those books home then.

1. The patients say, “we are taking medicine”

The patients say that they are taking that medicine

1. Jane said, “I am taking these books now”

Jane said that she was taking those books then

**Activity:**

**Change from direct to indirect speech**

1. The headmaster said, “I am going to Masaka now.”
2. The classmonitor said, “I am collecting books after this lesson”
3. The actor said, “we are bringing this play here”
4. They said, “we are taking this car now”
5. She said, “Joan is sleeping in the classroom today”
6. The hunter said, “I am hunting for wild animals there?

**PRESENT PERFECT TENSE**

Present perfect tense changes to past perfect tense.

Examples:

1. The teacher said, “I have spoken to you about your dressing.” (DIRECT)

The teacher said that he/she had spoken to her/him/me about her/his/my dressing. (INDIRECT)

Activity

Change from direct to indirect speech

1. They said, “we have spoilt this desk”
2. Birungi says, “she has lost her name infront of all these people”
3. She said, “I have gone this afternoon”
4. The girl said, “this dog has bitten this baby today”
5. The priest said, “I have received this gift from my friend
6. His sister said, Mary has not recovered her money”

**PAST SIMPLE TENSE**

Past simple tense changes to past perfect tense.

**Example:**

1. She said, “The hen laid this egg last week.” (DIRECT)

She said that the hen had laid that egg the previous week. (INDIRECT)

**ACTIVITY:**

**Change from direct to indirect speech**

1. Pearl said, “he sang a song well yesterday”
2. He said, “my brother passed PLE last year”
3. She said, “I began this journey from my home
4. The lazy boy said, “I didn’t finish the homework”
5. The badly behaved girl said, “I abused my friend yesterday”
6. The class monitor said, “I collected the books last week

**FUTURE SIMPLE TENSE**

“Will” or “ shall” changes to “would’

**Example**

1. He will marry me” said Rachel . Rachel said that he would marry her
2. “We shall go there next week” said the nurse
3. The nurse said that they would go there the following week.
4. She said, “she will not finish her exams next year”

**Activity**

**Change from direct to indirect speech**

1. The pupils said, “we shall go back tomorrow”
2. My uncle will go to America, said Percy
3. Rose and Sarah said, we shall bring this luggage to your home
4. The policeman said, “we shan’t tolerate any wrong doer”
5. She said, “I shall see him tomorrow”

**PREPOSITIONS**

**What is a preposition?**

This is a short word which is used after verbs, adjectives or nouns so as to show the relationship between the subject and the object of the sentence

Examples

Of, to , in , into, through, against, from, for, by, with, about, at, away, out, upon, on, under, along, since, down, round

Note

Prepositions are used according to the meaning they give

They are divided into the following ; preposition of time, prepositions of place, prepositions of movement

**Examples of prepositions of time**

For – period of time an action spends

Since – the point of time from which an action starts

At – exact point of time

In – period of time

On – days and dates

**Examples of prepositions of place**

In – relates to the location of something / somebody being with in an area e.g. he lives in Kampala

At – something at a certain plan e.g. We met at the bank

Examples of prepositions of movement

These describe movement or action. They may follow a verb of movement like walk, run, drive, sail, jump, climb, fly etc

They include; to, into, through, from, past, along, across etc

Note:

Some prepositions consist of more than one word these are called prepositional phrases

Examples ; in spite of , in front of, run off with

Once a preposition is followed by a pronoun the pronoun must be the objective case

Examples include; after him, with them, between you and me, before her

There are some words it is ot a must to use one preposition

We can use two or more prepositions at different times depending on the subject, object or the intended meaning

Examples; I agree with you (referring to a person) we agreed to it (referring to a thing or issue)

**COMMON PREPOSITIONS**

Ref. Mk precise English grammar pg 172 – 175

**Activity**

**Use for , since, on, in, by, or at where necessary in the blank spaces below**

1. The gulf war started ………1986
2. I have been sick ……….last Monday
3. They have lived in Kenya ……..a decade
4. Peter has been waiting ……….her
5. Our school opened………1987
6. He will have died……….next week
7. She passed ……..me at the constitutional square
8. They were in Kabale ……..ten o’clock
9. We learn science……….. Friday
10. He often leaves………..the afternoon
11. He is interested……….reading newspaper
12. She met me……..the way
13. The train arrived…………time
14. He came ………bus
15. Somebody is knocking…….the door

**Fill in the correct preposition**

1. Girls are normally good……..mathematics
2. The glass of water was full ………..poison
3. The car knocked …………two pupils last week
4. I borrowed money…….Theodoro
5. She was absent …….school yesterday
6. A dozen consists …………..twelve items
7. John is fond …….beating his friend
8. Villa succeeded …………defeating express yesterday
9. Dr. Julius Nyerere died………cancer
10. Mary got married……….Andrew
11. He divided the mango ………..two parts
12. Cain was jealous ……..his brother Abel
13. Annet was guilty…………murder.
14. I don’t believe……………life after death
15. I never waited……..Tom

Use the right preposition to complete these sentences correctly

1. The headmaster handed……the books to their owners.
2. We have finished our prayers, turn…..that radio
3. May you please turn…….that radio so that we can pray
4. Nurses look ……….sick people
5. Look……….that word in the dictionary
6. He has given…………..the habit of smoking
7. She cut……all the trees.
8. Paul should be advised to get……as quickly as possible
9. The thieves broke……..his house last night
10. I have been looking ………my money since last night

**MODAL VERBS (MK Precise PP 152)**

Modal verbs are special groups of verbs which go before the main verb.

|  |  |  |
| --- | --- | --- |
| **Subject** | **Modal verb** | **Main verb** |
| I | Can | Walk |
| You | Could | Come |
| He | Might | Leave |
| They | Will | Try |
| Suzan | Would | Drive |
| Shall |  |
| Ought to |
| Must |
| Need to |

Modal verbs talking about ability.

Examples

1. Minge can drive

Minge knows how to drive

2. I can speak French

I know how to speak French

**Activity**

**Rewrite the following sentences in negative.**

1. Tom can swim

2. The headmaster can play tennis.

3. He could play football when he was young.

4. Those boys can help us.

5. They should wash those plates.

Modal verbs talking about permission.

**Examples**

1. Can I use your pen, please?

Yes of course

2. Could I sit down here, please?

Yes of course

No, I am afraid not.

3. May I come in?

Yes, of course

No, I’m afraid not

Model verbs taking about request.

**Examples**

1. Can you help me please?

2. Could you answer the phone, please?

3. Would you post this letter, Please?

**Activity**

Revision English Pgs 44 - 45

**Modal verbs about obligation**

Obligation simply refers to rules, orders or duties.

We use: must, have to, should, ought to etc

Examples

1. It’s late. You must do your homework.

2. You should help me push this wheelbarrow.

3. You ought to get a job.

4. You must stay in bed.

5. If there are no rules, orders or duties use: You don’t have to.

**Modal talking about necessity**

If you want to talk about things it is necessary to use. “I have to ....,

I must .......or I need to .......

Examples

Sentences and their meanings

1. he has to walk to school.

(It is necessary for him to walk to school)

2. I must get a new passport.

(It is necessary for me to get a new passport

3. I need to buy some petrol.

(It is necessary for me to buy some petrol)

4. He had to go to hospital.

(It was necessary for us to go to hospital.

NB If there is no necessity use: I don’t need to .....or I don’t have to ........

Examples

1. You don’t have to run, you are not late.

( It is not necessary for you to run because you are not late)

2. You don’t need to get there till 9 o’clock.

( It is not necessary to get there before 9 o’clock)

3a) We mustn’t run.

( We are not allowed to run)

b) We don’t have to run.

( It is not necessary for us to run)

**Modal verbs talking about probability**

If you want to talk about the chances (risks) of something happening or not happening you can use: may, could, might, but not can.

Examples

1. It could rain tomorrow.

2. It may crash.

3. We might win.

You may put not after may and might for the negative.

Examples

She may not come.

They might not like it.

ACTIVITY: Learners construct oral and written using

Modals talking about possibility

You use can / could to say that situations or events are / were possible.

**Examples**

1. It can be quite cold in April.

2. Smoking can damage your health.

3. It could be very lonely on the island in those days.

NB: You can ask question about how possible things are with can / could.

Can this be true? Could it happen?

You can also ask.

Do you think..............will..............?

Example

Do you think they’ll come?

**Modal verbs used when making offers.**

If you want to do something for somebody, e.g help somebody or buy somebody a drink, you can say:

Shall I .....................?

Can I ......................?

Would you like ..................?

**Examples**

1. I’ll carry that for you.

2. Shall I do the washing up?

3. Can I give you a lift?

4. Would you like a cup of coffee?

You can answer these questions with

Thank you

Yes, please

No, thank you

No, thanks

**More examples**

1. I’ll pay for this - Thank you.

2. Shall I open the window? - Yes, please.

**Modal verbs giving advice**

If you want to advise someone what to do

Can say

You must ............

You should.....................

You ought to ......................

“Must is stronger than “should” and “ought to”

**Examples**

1. You must buy a new suitcase.

2. You should be more careful.

3. You ought to eat more fruit.

If you want to advise somebody not to do something you can say:

You must not .... ( mustn’t) ......

You should not ( shouldn’t) .....

**Examples**

1. You mustn’t smoke so much.

2. You shouldn’t ask so many questions.

NB: “Mustn’t” is stronger than “shouldn’t”

“Oughtn’t” is very uncommon.

**CONJUNCTIONS**

**As soon as/ immediately / the moment**

**Examples**

1. The dog started barking when it saw us
2. As soon as the dog saw us it started barking
3. The dog started barking as soon as it saw us
4. Immediately the dog saw us it started barking
5. The dog started barking immediately it saw us
6. The moment the dog barking the moment it saw us

**Activity**

**Use as soon as / immediately / the moment at the beginning and in the middle of the sentence**

1. When the president arrived, it started raining.
2. The teacher left the classroom. The children began shouting
3. My father opened the door. The thief entered the house
4. I saw a snake when I entered my bedroom
5. John run to the bush on seeing his father
6. The guest of honour arrived and the national anthem was sung.
7. When the baby saw her long lost mother she started crying
8. As he switched on the Tv he got a serous shock
9. He died instantly after being shot at
10. The rebels crossed the border. The army ambushed them

……..and so…….

**This structure is used with affirmative sentences**

**Examples**

Mum sent me a birthday gift. Dad sent me a birthday gift

Mum sent me a birthday gift and so did Dad

Wasswa can drive a car. Kato can also drive a car

Wasswa can drive a car and so can Kato

The teacher is going on a tour. The pupils are going on a tour

The teacher is going on a tour and so are the pupils.

**Activity**

Use:……and so….. in these sentences

1. Peter is a lazy pupil. Mary is a lazy pupil
2. Jesca wants something to drink. Ritah wants something to drink
3. The boys do their work well. The girls do their work well
4. Annet has gone home. Tom has gone home
5. The doctor has a car. The nurses also have cars
6. Mother is going to the market. Other ladies are going to the market
7. Gilbert ate an apple. Henry ate an apple
8. The men have finished their work. The women have finished their work
9. Musa is going to school. Ali is going to school
10. The dog was killed. The cat was killed

…….and neither……

**The structure is used with negative statements**

**Examples**

1. Peter will not give you the money. James will not give you the money

Peter will not give you the money and neither will James

1. They don’t eat meat everyday. We don’t eat meat everyday

They don’t eat every day and neither do we

1. Moses is not allowed to come in Simon is not allowed come in

Moses is not allowed to come in and neither is Simon

**Activity**

**Use…..and neither……/ in these statements**

1. The baby did not drink the milk. Paul did not drink the milk.
2. The cat could not sleep. The dog could not sleep
3. Our teacher will not go to the party. Our headmaster will not go to the party
4. A cow is not dangerous. A goat is not dangerous
5. Kijambu was not a good lawyer. Kyeye was not a good lawyer
6. Nathan does not eat pork. I do not eat pork
7. Mercy has not failed the test. Moses has not failed the test
8. The sea is not shallow. The lake is not shallow
9. Peter did not go to the market. Amon did not go to the marked
10. You must not smoke. She must not smoke

**The ………the …….(double comparative)**

We use two clauses where each starts with the followed by an adjective in comparative degree

Examples

1. As you go high, it becomes cool
2. The higher you go, the cooler it becomes
3. When you grow old, you become wise
4. The older you grow, the wiser you become
5. If it is done soon, it will be good
6. The sooner it is done, the better it will be

**Activity**

**Use ..the ….the….in these sentences**

1. If you do little work, you will get little money
2. When they give us more food, we shall become happy
3. If the chairs are comfortable they will have a big market
4. When the shop grew big, the business became busy
5. When the sun shines more it becomes hot
6. If your goods are not important they will be cheap
7. As you stood far, you became small
8. If you come early you will be busy
9. Let the food be expensive you will pay more money
10. However much the teacher talked, I didn’t understand
11. Kwizera is strong. He won’t be defeated
12. The headmaster has many words and his talk will take us far

**………looking forward to……**

Examples

The P7 pupils will do their PLE in November

The P7 pupils are looking forward to doing their PLE in November

Ntambi will visit his relatives next month

Ntambi is looking forward to visiting his relatives next month

**Activity**

**Use ……..looking forward to …in these sentences**

1. I shall come back tomorrow
2. The children will complete their work in time
3. We shall be leaving for Nairobi next week
4. I shall be sitting my final examinations next month
5. The boy will clean the blackboard after the lesson
6. Elizabeth will get a big prize at the party
7. If the pupils will attend the headmaster’s birthday party
8. We shall receive our letters tomorrow morning
9. The patients will recover before next week
10. They will be learning French next year
11. We shall go to P6 next term
12. I will inform him about our plan

**…….as long as…./ …..so long as…../ ……..provided….**

Examples

1. You will catch the earliest bus if you wake up early
2. As long as you wake up early, you will catch the earliest bus
3. You will catch the earliest bus as long as you wake up early
4. So long you wake up early you will catch the earliest bus.
5. You will catch the earliest bus so long as you wake up early
6. Provided you wake up early, you will catch the earliest bus
7. You will catch the earliest bus provided you wake up early

**Activity**

**Use as long as/ so long as/ provided both at the beginning and in the middle of these sentences**

1. If Juma comes we shall go with him
2. Metals expand if you heat them
3. If you get a first grade you will join a good school
4. I shall buy a car when I get money
5. If he goes his father will be sad
6. Geoffrey will find you here if you delay
7. If you come early, you will pass with no punishment
8. The road will be muddy if it rains heavily
9. If that girl misbehaves the headteacher will expel her

**Not only………but also**

**Examples**

The goat is sick. It has a broken leg

Not only is the goat sick but also has a broken leg

The goat is not only sick but also has a broken leg

He is my best friend. He is my agemate

Not only is he my agemate but also my best friend

He is not only my best fried but also my agemate

Activity

Use not only………but also both at the beginning and in the middle of these sentence

1. Cows provide us with milk. They give us hides
2. The robbers stoles his money. They killed him
3. They picked the money. They took all of it
4. The soldier shot him. The soldier killed him
5. The boys watched the play on the stage. The boys watched the play on a screen
6. He ate beef. He ate chicken
7. Nkanji is a lawyer
8. Forest give us timber. Forests give us herbs
9. He caned the thief. He handed him over to the police
10. She respects her teacher. She respects her class monitor

Hardly had…./ scarcely / barely had. No sooner had

**Examples**

Musa stood up immediately the bell rank

Hardly had the bell run when Musa stood up

Scarcely had the bell run when Musa stood up

**PROVERBS**

**Proverbs are popular sayings in a clever brief manner.**

**Examples**

1. A bad workman blames with his tools.

2. A bird in the hand is worth two in the bush.

3. A drowning man will clutch at a straw.

4. A fool and his money are soon parted.

5. A friend in need is a friend indeed.

6. A hungry man is an angry man.

7. All’s well that ends well.

8. An apple a day keeps the doctor away.

9. Any time means no time.

10. A miss is as good as a mile.

11. A penny saves is a penny gained.

12. A tolling stone gathers no moss.

13. A stitch in time saves nine.

14. A small leak will sink a great ship.

15. As you make your bed so you must lie in it.

16. A wild goose never laid a tame egg.

17. Half a loaf is better than no bread.

18. Better late than never.

19. Birds of the same feather flock together.

20. Charity begins at home but should not end there.

21. Cut your coat according to your cloth.

22. Don’t carry all your eggs in one basket.

23. Early to bed, early to rise.

24. Every cloud has a silver lining.

25. Every dog has its day.

26. Exchange is no robbery.

27. Fine feathers make fine birds.

28. First come , first served.

29. Forbidden fruit tastes sweetest.

30. Great minds think alike.

31. Half a loaf is better than non.

32. Little boys should be seen not heard.

33. Laugh and grow fat.

34. Habit is second nature.

35. Listeners hear no good of themselves.

36. Let not the pot call the kettle black.

37. Look before you leap.

38. Make hay while the sun shines.

39. Necessity is the mother of invention.

40. New brooms sweep clean.

41. No news is good news.

42. No smoke without fire.

43. One good turn deserves another.

44. One man’s meat is another man’s poison.

45. Out of sight, out of mind.

46. Out of the frying pan into the fire.

47. Sauce for the goose is sauce for the gender.

48. Set a thief to catch a thief.

49. Still waters run deep.

50. The early bird catches the worm

51. Too many cooks spoil the broth.

52. Two heads are better than one.

53. Where there’s a will there’s a way.

54. When the cat’s a way the mice will play.

**The sentences in group A are the beginning of ten proverbs. Give each beginning in group A its correct ending in group B.**

A B

1. Prevention is without pain

2. Out of frying pan is no robbery

3. Better be alone according to your cloth

4. A rolling stone better than cure.

5. Exchange and spoil the child.

6. Spare the rod into fire

7. One good turn the mice will play.

8. When the cat is away gathers no moss

9. No gains than ill company

10. cut your coat deserves another

**Complete the following proverbs**

a. ...............................................saves nine.

b. Empty tins ............................................................

c. ...........................................................is enough.

d. ............................................makes perfect.

e. All is well ......................................................................... .

f. ......................................................seldom bite.

g. A fool and his money ............................................................

h. ....................................................................is the mother of invention.

i. Actions ............................................................................... .

j. ...............................................is better than riches.

**Find a suitable proverb to summarise each of the stories below.**

a. When Mary joined our school last term, she was very poor at spoken English. Although many pupils laughed at her mistakes, she kept on trying over and over again. After one year, she is now the best English speaker at school.

Proverb: ............................................................................................................

b. Mugisha started collecting used clothes give to the poor. He thought he would not get a big collection. He collected a few clothes each month but after to years, he now has a big collection of used clothes.

Proverbs: ........................................................................................

c. Obonyo used to steal our books and pens from our bags. When our class teacher talked to him about the evils of being a thief, he stopped the bad habit.

Proverbs: .....................................................................................................

d. Most of the girls in our class said thet Birungi didn’t know how to play netball. But Birungi said that she would not argue with them. “Let us go to the netball pitch and play, then you will see whether I know netball or not” said Birungi. At the end of the match, Birungi was selected as the best netball in the school.

Proverb: .......................................................................................................

**SYNONYMS**

Abandon - leave denounce - condemn

Abbreviate - shorten desert - forsake

Abrupt - sudden diminish - lessen

Abundant - plentiful drowsy - sleepy

Accurate - correct edible - eatable

Ample - plentiful encircle - surround

Annual - yearly endeavour - attempt

Assistance - help energetic - active

Brief - short enormous - huge

Cease - stop excavate - dig

Centre - middle frigid - cold

Circular - round generous - kind

Commence - begin gratitude - thankfulness

Compel - force grave - serious

Comprehend - understand indolent - lazy

Conceal - hide industrious - busy

Courteous - polite insane - mad

Deceive - cheat intention - purpose

Deficiency - shortage interior - inside

Demonstrate - show intoxicated - drunk

Lubricate – oil peruse - read

Margin - edge procure - obtain

Maximum - most prohibit - forbid

Minimum - least prompt - quick

Moist - damp rare - scarce

Motionless - still reckless - rash

Necessity - need recollect - remember

Odour - smell regret - sorrow

Omen - sign reluctant - un willing

Option - choice reveal - show

Pathetic - pitiful scanty - scarce

Penetrate - pierce slender - slim

Perceive - see stationary - still

Sufficient - enough unite - join

Wealthy - rich youth - young

Pretty – beautiful tested – tried

Courageous - brave

**EVALUATION**

**Re – write the sentences using a simpler word in place of each underlined word.**

1. Her rings were abundant in the North sea.

2. A heavy meal tend to make one drowsy.

3. Every Saturday Dennis lubricates his bicycle.

4. The bungalow has been vacant for sometime.

5. The minister of finance reads the budget annually.

6. “Don’t conceal that information,” said the policeman

7. Last year’s P.L.E was very difficult.

8. What is the maximum temperature of a day in a desert?

9. AIDS has no remedy.

**Write the words similar in meaning to the following**.

11. Perceive 12. obstinate

13. reluctant 14. rare

15. prohibit 16. demonstrate

17. deceive 18. brief

19. ample 20. comprehend

**HOMOPHONES**

**Homophones are words pronounced in the same way but differ in meaning.**

**Example**

Break - brake right -write tail - tale

Meat - meet read - reed steal - steel

Bare - bear practice - practice weak - week

Blew - blue sell - sale through – threw

Cell - sell oar - ore their - there

Dairy - diary missed - mist pray - prey

Stationery - stationary fair - fare peace - piece

Scene - seen dear - deer sew - sow

See - sea led - lead

**Use the following words in your own sentences to show that you understand their meanings.**

1. peace 7. hour 11. sun 15. week

2. piece 8. our 12. son 16. weak

3. root 9. there 13. die 17. hymn

4. route 10. their 14. dye 18. him

5. knew

6. new

20. practice

**ANALOGIES**

**Analogies are words which show some similarity.**

**Example**

1. Cat is to kitten as sheep is to lamb.

2. Sheep are to flock as wolves are to pack.

3. Dog is to paw as horse is to hoof.

4. Food is to famine as water is to drought.

5. Uncle is to nephew as aunt is to niece

6. Husband is to wife as king is to queen.

7. Nose is to smell as tongue is to taste.

8. Knife is to cut as gun is to shoot.

9. Walk is to legs as fly is to wings.

10. Arrow is to bow as bullet is to rifle.

11. Father is to son as mother is to daughter.

12. Water is to food as liquid is to solid.

13. Rich is to poor as ancient is to modern.

14. Trees is to forest as sheep is to flock.

15. Whisper is to shout as walk is to run.

16. Hearing is to ear as sight is to eye.

17. Statue is to sculptor as book is to author.

18. Table is to wood as window is to plane.

19. Bee is to hive as cow is to byre.

20. One is to dozen as dozen is to gross.

**EVALUATION**

1. Boy is to girl as ...........................is to girl guide.

2. Kampala is to Uganda as Kigali is to ............................

3. Cow is to beef as pig is to ..............................................

4. Calf is to elephant as ................................is to goat.

5. Oval is to egg as ...............................is to orange

6. Steam is to ............................................. as smoke is to fire.

7. Eat is to ...................................as go as to went.

8. Day is to week as ..................................is to year.

9. Flock is to ....................................as herd is to cattle.

10. Drive is to car as ....................................is to aeroplane.

11. .............................is to cols as seldom is to often.

12. ....................................is to donkey as neigh is to horse.

13. ................................are to birds as scales are to fish.

14. Wing is to bird as fin is to ........................................

15. North is to .......................................as east is to west.

Using “ When did ......?

From questions to the given statements.

Examples

1. When did Musa pin up the information on the notice board?

Musa pinned up the information on the noticeboard on Monday.

**COMPREHENSION UNIT6 AND 7**

**PEACE AND SECURITY**

**Vocabulary**

Peace, security, judge, magistrate, report, statement, offence, offend, handcuff, crime, cell, arrest, court, police station, police post, army, barracks, case, court, witness, defense, gun, arrows

Using the vocabulary words to construct meaningful sentences

Passage

Report to the police for help Mk bk5 new curriculum pg 204 – 206

Guided composition

Keeping law and order Mk bk new curriculum pg 208

Dialogue

Speak out! Mk bk 5 new curriculum pg 203

**SERVICES UNIT 8**

Banking

Vocabulary

Account, ATM card, automated teller, machine, balance, bank, bank manager, bank statement, bounce, cashier, cheque, credit, deposit, withdraw, withdrawal form, forge, pass book, safe, teller, bank book, save, cheque book, savings, money

Using the vocabulary words to construct meaningful sentences

Passage

My own bank account Mk bk 5 new curriculum pg 221

Bankslip Mk bk5 old curriculum page 210

Dialogue

Keep your money in the right place Mk bk 5 new curriculum pg 220

**TAWHIID ISLAMIC NURSERY AND PRIMARY SCHOOL**

**PRIMARY FIVE SCIENCE LESSON NOTES 2019**

**TERM I TOPICS**

1. **KEEPING POULTRY AND BEES**
2. **MEASUREMENT**
3. **IMMUNIZATION**
4. **THE DIGESTIVE SYSTEM**

**POULTRY KEEPING**

***Key terms used in poultry(cockerel, pullet, capon, incubation, brooding, incubator, brooder, moulting)***

**Poultry** are domestic birds

Poultry keeping is the rearing of domestic birds (fowls).

**Examples of poultry**

1. Chicken
2. Ducks
3. Pigeons
4. Turkeys
5. Guinea fowl

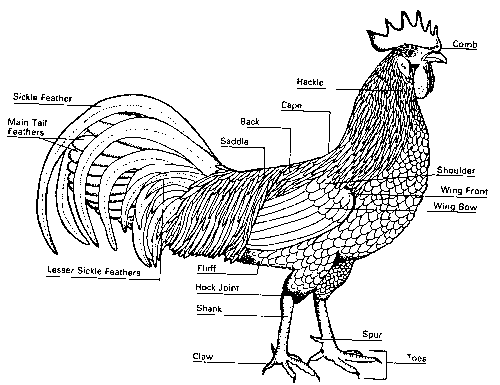
**Reasons why farmers keep poultry**

1. For egg production
2. For meat (Chicken) production
3. For sell to get money (family income)

**Other uses of poultry**

* To get feathers for different purposes e.g. making pillows, decoration, dancing props, cushions.
* Some birds are kept as pets in homes e.g. peacocks, hens, parrots.
* Source of farm yard manure from the droppings.

***External parts of a cock***

****

**Activity**

1. **What is poultry?**

**2. Differentiate between poultry and poultry keeping.**

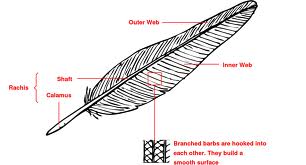
**3. Why do farmers keep birds?**

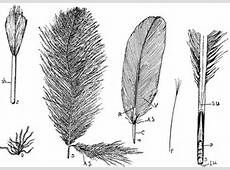
**Importance of each part on a bird**

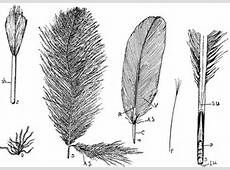
1. **Spur -** For protection / defense
2. **Beak / bill** 
   * 1. For picking food
     2. For defense
     3. For building their nests
     4. To clean itself and arrange its feather.(preen)
3. **Toe nails (claws)**
   * 1. To scratch for food
     2. For defense
4. **Comb and wattle** 
   * 1. For identification
5. **Feathers** 
   * 1. For identification
     2. For courtship (attracting of opposite sex for mating) incase of a cock.
     3. To protect the delicate skin
     4. To keep the birds warm
     5. For incubation of eggs.
     6. For brooding their young ones.

NB: Cocks have bright feathers for courtship (Attracting of opposite sex for mating)

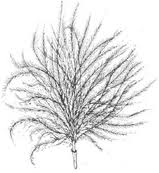
***Structures of feathers***

**Quill feather Covert feather**

**[](http://etc.usf.edu/clipart/48100/48108/48108_feather_type.tif)**

[](http://etc.usf.edu/clipart/48100/48108/48108_feather_type.tif)

**Down feather Filoplume**



**Purpose of the above feathers:**

***Quill feathers***-They are used for flight

***The body feathers***-To keep the bird warm

***Down feathers***-They help in insulating the bird

***Filo plume feathers***-They keep the bird warm

**Activity**

**1. Identify the types of feathers.**

**2. Give the importance of feathers to birds**

**3. How are feathers important to man?**

**Differences between a hen and a cock**

|  |  |
| --- | --- |
| **A cock** | **A Hen** |
| 1. Has a large spur 2. Has a large comb 3. Has a large wattle 4. Does not lay eggs 5. Has large ear lobes 6. Has long strong claws 7. Has a large beak | Has a small spur  Has a small comb  Has a small wattle  Lays eggs  Has small ear lobes  Has small claws  Has a small beak |

**NB: Observe the real bird (cock and hen)**

### *Breeds of chicken*

1. A breed is a group of animal with specific characteristics /Birds with similar characteristics are said to be of the same breed.

***Types of breeds of chicken***

* Local breeds (indigenous) breeds
* Exotic (foreign) breeds
* Crossbreeds( hybrid )

**Local breeds or indigenous;**theseare breeds of chicken that have lived in East Africa for a long time

### *Characteristics of local breeds*

* Local breeds take long to mature.
* They are more resistant to diseases compared to exotic breeds.
* They produce little meat and usually hard.
* They produce fewer eggs compared to the exotic ones.
* Local breeds have different feather colour.
* They produce small eggs.
* Local breeds can survive poor management conditions like: Little food, No shelter, High temperature, and little water.

### *Characteristics of exotic breeds*

* They have tender meat.
* They are good layers.
* They grow and mature faster.
* They cannot stand poor management conditions.
* They have a lot of flesh on them.
* They are of the same colour, size and shape.
* They are less resistant to disease

1. ***Examples of exotic breeds include:***

### Rhode Island Red

### Light Sussex

### White leghorn

### The New Hampshire

### The Orrington

### Ancona

***Advantages of keeping local breeds of chicken (indigenous)***

* Local breeds are easy to manage.
* Local breeds are resistant to tropical diseases.
* Local breeds look for their own food.
* Local breeds incubate their own eggs
* They brood their own chicks.
* They get a lot of physical exercises as they move from one place to another looking for food.

***Disadvantages of keeping local breeds of chicken***

* They grow very slowly
* They lay fewer eggs.

***How to improve upon the local breeds of chicken***

* Through cross-breeding of local breeds with exotic breeds to get a hybrid.
* Through selective breeding (choosing breeds of good quality).
* Through out-breeding – mating of different families of the same breed.

**Activity**

**1. Give two differences between a cock and a hen.**

**2. What is a breed?**

**3. Identify the breeds of chicken kept in Uganda.**

**4. Why would a farmer prefer keeping local breed to exotic breed?**

**5. What are some of the disadvantages of local breeds chicken?**

***Advantages of cross-breeding***

* Encourages fast growth in birds
* Results into more eggs being laid by the offspring.
* Improves on the productivity of poultry.

***Advantages of keeping Exotic breeds of chicken***

* Exotic breeds grow very fast.
* Exotic breeds lay many eggs.

***Disadvantages of exotic breeds of chicken***

* Exotic breeds are not resistant to diseases.
* They do not incubate their eggs.
* They cannot look for their own food.
* Exotic breeds are expensive and difficult to look after.
* They cannot brood their own chicks.

***Types of chicken (a class of birds kept for a purpose)***

There are three main types of chicken kept in Uganda.

Layers

Boilers

Dual Purpose

### Layers

Layers are kept purposely for egg production.

***Examples of layers:***

* White leghorn.
* Brown egger.
* Thornber
* Ancona
* Minorca
* Skyers
* Light Sussex

*Off-layers are birds whose egg production rate has greatly lowered.*

### Broilers

Broilers are kept for meat production.

Broilers are also known as *table birds.*

***Examples of broilers:***

* Light Sussex.
* Orrington
* Ply mouth rock
* Rhode Island red
* Hampshire

### Dual purpose birds

Dual-purpose birds are kept for both meat and egg production.

Dual-purpose birds are both good layers and give a lot of meat.

### *Examples of dual purpose*

* Light sussex.

**Feeding of poultry**

Chicks feed on **chick mash**

Boilers feed on **Boilers’ mash**

Layers feed on **layers’ mash**

Growers feed on **Growers’ mash**

***Composition of chicken mash (feeds)***

* Silver fish (enkejje)
* Bone meal
* Common salts
* Maize meal
* Sea shells (rich in calcium for the strong growth of bones)

***Different types of birds are fed on such feeds for a purpose***

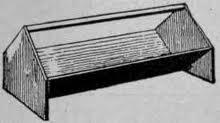
1. **Layers:** Layers’ mash makes them to lay many eggs with hard eggshell as its rich in calcium. The calcium also helps them to strengthen their bones.
2. **Boilers’:** Broilers’ mash has a lot of proteins which makes the broilers to grow very fast and put on more weight in short time.
3. **Growers’:** Growers’ mash is very rich in protein which makes the growers to grow very fast and well.
4. **Chicks’ mash** is soft and easy to digest by the chicks’ gut. It is rich in proteins which makes the chicks to grow very fast.

**Summary table**

|  |  |  |
| --- | --- | --- |
| **Types of chicken** | **Food** | **Age** |
| 1. Chicks 2. Growers 3. Broilers 4. Layers | Chick mash  Growers’ mash  Broilers’ mash  Layers’ mash | 0 – 4 weeks  4 – 16 weeks  4 – 8 weeks  Over 16 weeks |

**Feeding and drinking equipment**

****



**Activity**

**1.Identify the type of feeds given to the following birds**

**Chicks**

**Broilers**

**Layers**

**2. Identify the above feeding troughs.**

**3.State the importance of the put in a brooding room.**

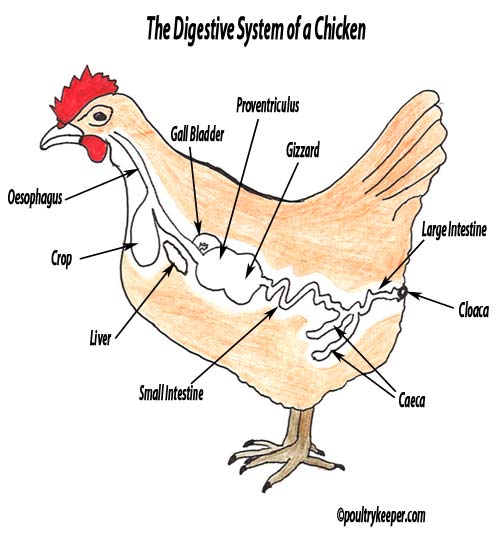
**Digestion in birds**

Digestion is the breaking down of food into smaller particles.

Birds have no teeth

They have a horny beak

They swallow food wholly (food is swallowed whole)



**Functions of different parts of the alimentary canal of bird**

**Beak / bill:** Is used to:

* + Pick food
  + Break food into smaller piece

**Gullet (Esophagus):** Is used to carry food from the break to the crop.

**Crop:** Softens / moistens food before it is passed onto the stomach

**Stomach:** Secretes digestive enzymes that mix with food.

**Gizzard:** Contains small stones (grit) that grind (crush) food into small particles.

**Small intestine:** Final digestion takes place. Where absorption occurs.

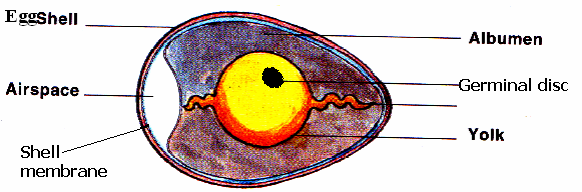
**Colon (large intestines):** Absorption of water takes place.

**Caeca:** Stores undigested foods remain temporarily. It is where cellulose is acted upon by bacteria.

**Vent:** allows wastes (chicken droppings) out of the body of a bird.

**Parts of an egg**

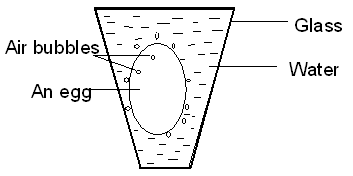
##### The structure of an egg



Functions (uses) of parts of an egg

1. **Eggshell**
2. It protects the internal parts of an egg.
3. An egg shell allows exchange of gases because it is porous.

**An experiment to prove that an eggshell is porous**.



1. **Germinal disc**

It develops into an embryo after fertilization

1. **Embryo**

Develops into a chick.

1. **Air space**

It keeps and provides air to the embryo.

1. **Chalaza**

It holds the yolk in position.

1. **Yolk**

It is the source of proteins and fats for the embryo.

1. **Albumen (egg white)**

It is the source of water and proteins to the embryo.

**SYSTEMS OF KEEPING POULTRY**

There are four systems of keeping poultry

* Free range system (open system)
* Deep litter system
* The cage (battery) system
* The art / fold / pen system

1. **Free range system**

*Free range system is where birds are allowed to move (roam) about to look for food but shelter is provided to them.*

**Advantages of free range system**

* Birds eat a variety of foods
* Birds look for their own food
* Free range system is cheap to maintain
* It reduces labour to the farmer.

**Disadvantages of free range system**

* Birds can easily get lost
* The eggs can easily get lost and are difficult to collect.
* The birds can easily be eaten by wild animals like kites, eagles cats etc.
* Eggs become dirty easily
* It is difficult to control diseases and pests parasites.

1. **Fold / Ark / Open system**

*Is where a limited number of birds are kept in a small moveable house called a fold / pen / ark.*

* Birds lay their eggs in the pens / folds/ arks.
* These folds are moved from one place to another every day (daily)
* The fold is made of wood, wire mesh and sticks tied together.

**STRUCTURE OF A PEN**

[](http://i281.photobucket.com/albums/kk217/patandkaren/chicken_pen.jpg)

**Advantages of the pen system**

* It is cheap to maintain compared to cage system or deep litter system.
* Manure is evenly distributed on the farm.
* Birds are restricted in movement
* Birds can easily get vitamins and sunlight.

**Disadvantages of the pen system**

* It is more expensive than free range system
* The folds easily get old and break due to constant movements from one place to another.
* Birds are easily bored since their movement is restricted to their fold / pen.
* More land is needed to shift the folds.
* Much labour is needed to move the folds daily.

***Activity***

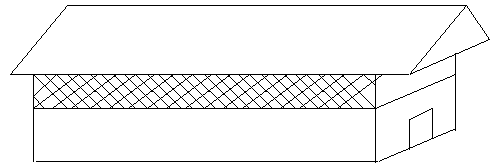
1. Name four systems of poultry keeping.

2. why is free range commonly used in rural areas?

3. whatare the dangers of using the free range system.

1. **Deep litter system**

*Is a system where the birds are kept in a house throughout.*

* The feeds and water are given to the birds inside the house.
* Litter is put on the floor to keep the birds warm among others.
* The house is well lit to allow the birds to feed constantly.
* **The structure of a deep litter house.**
* 
* **Inside a deep litter house**
* 

**Advantages of the deep litter system**

* The litter poured on the floor can be used as manure.
* Birds are protected from thieves and wild animals e.g. wild cats.
* Many birds can be kept in a small house.
* Clean eggs are collected.
* This system can be used for all stages of birds.
* Birds cannot get lost as their movement is controlled.

**Disadvantages of deep litter system**

* It encourages vices e.g. egg eating, cannibalism, toe pecking etc.
* Litter can be a fire hazard (can easily catch fire).
* It is more expensive than free range system.
* The litter can harbor (keep) pests and parasites.

**Components of litter (what litter is made of)**

Coffee husks, wood shavings, rice husks, crushed maize cubs and saw dust.

**Importance of litter**

* Provide warmth for the birds
* Prevent the eggs from breaking as they are laid.
* Litter provides heat that kills parasites / germs.
* Litter got from the house can be used as manure by crop farmers.

**Disadvantages of litter**

1. Litter harbors parasites
2. Litter is a fire hazard.

**Battery (cage) system**

In this system, birds are kept in separate cages.

* It is not commonly used in Uganda.
* Each cage has one or two birds put outside the cages.
* This enables people to feed the birds easily and reduce contamination of feeds by the birds themselves.
* Cages can also be constructed in rows / one above the other.
* The cage should have good ventilation.

**A DIAGRAM SHOWING A CAGE**

[](http://static.guim.co.uk/sys-images/Admin/BkFill/Default_image_group/2011/8/31/1314809207695/battery-hens-in-a-chicken-007.jpg)

**Advantages of battery system**

1. Diseases and diseased birds are easy to identify
2. It is easy to identify a bird that does not lay eggs.
3. Birds are very easy to control.
4. They are protected from thieves and wild animals.
5. Farmers can get manure easily.
6. There are less poultry vices than in the deep litter system.

**Disadvantages of battery system**

1. A lot of money is needed to start (so it is very expensive)
2. Birds do not eat whenever they need to.
3. Birds need much attention.

**Poultry diseases**

1. Coccidiosis
2. New Castle disease
3. Fowl typhoid
4. Fowl pox
5. Gumboro diseases
6. Avian leucosis
7. Salmonellosis
8. Worms

**Diseases caused by a virus**

1. New castle diseases
2. Fowl pox
3. Gumboro disease

**POULTRY DISEASES**

1. Coccidiosis

Is caused by protozoa.

**Signs of Coccidiosis**

* Ruffled feathers
* Yellowish – White diarrhea
* Chicks are thin and not lively.
* Blood stained (faeces) droppings.
* Chicks crowd together
* Dullness and drooping of wings.

**Prevention of Coccidiosis**

* Put drugs in food and water for the birds
* Should keep all the feeding troughs clean
* Isolate or kill infected birds.
* Keep the brooder and the areas around clean and dry.

1. **New castle disease**

Caused by a virus

**Signs of New castle diseases**

* Difficulty in breathing, coughing, sneezing and rattling.
* Lameness
* Several birds suddenly die
* Greenish – yellow dropping
* Birds twist their necks
* Staggering and dropping of wings.

**Prevention, treatment and control of New Castel diseases**

* Disinfect the poultry house regularly
* Vaccinate the birds after every 6 months
* In case of outbreak, the flock should be killed.

**NB:** There is no treatment for New Castle disease so far

**Activity.**

**1. Name any 4 poultry diseases**

**2. Identify any two viral poultry diseases and their control.**

1. **Fowl pox**

Caused by virus

**Signs of fowl pox**

* Difficulty in breathing
* Egg production and fertility reduces
* Watery sores on the comb, wattle and around the eyes.
* Discharge from the nostril and eyes.
* Molting and shedding feathers.
* Ulcers in the mouth (small wounds)

**Prevention and treatment of fowl pox**

* Vaccinating the birds.
* Maintaining perfect hygiene
* Killing and burning the infected birds.
* Disinfecting the poultry house regularly.

1. **Fowl typhoid**

Fowl typhoid is caused by **Bacterial** called **Salmonella.**

These salmonella bacteria can attack the human beings as well, therefore it is dangerous for people to eat raw eggs.

**Signs of fowl typhoid**

* Raffled feathers and a pole wattle
* Folding their heads close to the body
* Watery greenish – yellow droppings
* The liver, kidneys and spleen may become enlarged.

**Control and prevention of fowl typhoid**

* Vaccinate the birds at 5 weeks.
* Revaccinate at 4 months
* Kill and burn the infected birds
* No specific treatment for fowl typhoid.

1. **Gumboro diseases**

Caused by a virus

**Signs of Gumboro diseases**

NB: Affects the chicken between 3 to 6 weeks.

* Ruffled feathers
* Drooping of the wings
* Diarrhea and later blood stained droppings.
* Chicks die in a short time.

**Poultry parasites**

A parasite is a living organism that depends on its host for food and shelter and harms it (has a harmful effect on it)

**Types of parasites**

1. Endo – parasites
2. Ecto – parasites

**Examples of ecto – parasites**

Lice Depluming mites

Red mites

Fleas

**Signs of worms**

* White chalky droppings
* Watery diarrhoea
* Fewer eggs are laid

**Control of worms**

Deworm at 6 weeks and every month

**How to control ecto – parasites**

* Dusting laying nests
* Ensure good hygiene in the poultry house
* Dusting birds with disinfectants
* Dipping the birds’ feet in kerosene to kill the fleas

**ACTIVITY**

**1. What are parasites?**

**2. Give two types of parasites.**

**3. Name 2 examples of each parasites identified above.**

**POULTRY VICES**

Poultry vices are bad habits in poultry.

**Examples of common poultry vices**

* Cannibalism
* Egg eating
* Feather pecking
* Bullying
* Toe and skin pecking

**Causes of vices in poultry**

* Boredom
* Starvation (little or no food)
* Overcrowding of poultry
* Lack of a balanced diet

**Signs of poultry vices**

* Blood stained beaks / bills
* Bleeding at the vent
* Yellow stains of egg yolk on the beak
* Broken egg shells in the poultry house.
* Fighting amongst poultry

**How to control poultry vices**

* Debeaking birds that eat eggs.
* Avoiding overcrowding the birds
* Give the poultry feeds rich in calcium
* Cull or isolate the birds that are aggressive.
* Hang greens in the poultry house to keep the birds busy.
* Provide proper nestling for the layers.
* Collect laid eggs regularly.
* Remove broken egg shell from the house.
* Provide enough feeds to the birds.

**Activity**

**1. What are vices in poultry?**

**2. List down any 3 poultry vices.**

**3. Identify any ways of controlling poultry vices.**

**Record keeping on poultry**

Types of records kept on poultry farm

1. **Flock records:** Shows the number of birds on a farm i.e. (number sold, dead or killed daily).
2. **Health records:** Shows the treatment given to the birds.
3. **Production records:** Shows the production percentage and the number of eggs collected daily.
4. **Feeding records:** Shows the type of feeds, quantity or amount consumed or wasted.
5. **Sales and expenditure:** Shows the expenditure and income from the feeds, eggs, sales of birds

**Importance of keeping records on a farm**

* Help to plan for the future of the farm
* To know the profit or losses made on the farm
* For fair tax assessment
* Enable the farmer to get loans
* To know the progress of the farm
* Enables the farmer to review the history of the farm.

**TOPICAL QUESTIONs**

1. How are feathers important to a bird?
2. Give the differences between poultry and poultry keeping.
3. Why do farmers keep the following types of poultry?
   1. Layers
   2. Broilers
   3. Dual purposes
4. Give any two examples of poultry.
5. Identify the importance of the following on a poultry farm.
   1. Brooder
   2. Incubator
6. What is the incubation period of a hen?
7. How can a poultry farmer improve upon his local breeds of chicken?
8. Briefly explain the disadvantages of keeping local breeds of chicken.
9. Why do poultry farmers keep farms records?
10. Identify any one poultry diseases caused by each of the following germs
    1. Virus
    2. Bacterium
    3. Protozoa
11. Give the importance of grits/palliables in the alimentary canal of birds.
12. Identify any one cause of poultry vices.

**BEE KEEPING (API CULTURE)**

Bee keeping is sometimes called **Api-culture**

**APIARY**

An apiary is a farm of bees **OR**

An apiary is a place where bees are kept.

**Why bees are referred to as social insects.**

Bees live and work together in organized group called colonies.

**Examples of social insects**

Termites

Red ants

Wasps

Black ants

**Solitary insects**

Solitary insects are the insects that live and work alone.

**Examples of solitary**

Mosquitoes

Houseflies

Butterflies

Grass hoppers

Dragon flies

Cockroaches etc.

**NB: There are two types of bees:**

Solitary bees i.e. bumble bee

Social bees i.e. honey bee

***External parts of a bee***

**TYPES OF BEES IN A HIVE**

* Queen bee
* Drone bee
* Worker bee

**THE QUEEN BEE**

**CHARACTERISTICS OF QUEEN BEE**

1. It has along abdomen and long legs.
2. It is the largest bee in the hive
3. It has shorter wings as compared to its body.
4. It has a sting.

NB**: Its life span is 4 – 5 years. It lays between 1500 – 3000 eggs per day.**

**Function of the Queen bee in the hive**

1. To lay eggs in the hive

**Queen bee feeds on**

The queen bee is fed on royal jelly by the worker bees

**THE DRONE BEE**

**Characteristics of a drone bee**

1. It is the male bee in the hive
2. The drone is the second largest bee in the hive
3. It has a blunt hairy abdomen
4. It is the only bee without a sting in the hive.

NB. It is almost never in the hive because it is killed after mating the queen.

**Function of a drone bee**

* To mate with the queen bee

**Wedding flight / maiden flight / nuptial flight/ marriage flight**

A wedding flight is a flight during which the drone bee mates the queen bee.

**Why does the drone bee die after the wedding flight?**

Due to loss of its reproductive organ (tract) during mating.

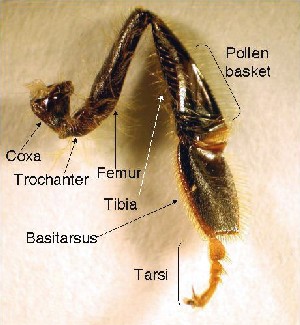
**WORKER BEE**



**Characteristics of the worker bees**

1. They are the smallest and busiest bees in the hive.
2. They have a sting used for defense
3. They have a pollen basket on their hind leg for carrying pollen grains.
4. They are female sterile bees because their reproduction organs are under developed.

**Diagram showing the hind leg of a worker bee**

****

**Roles of the workers bees**

1. Guards the hive.
2. Collect nectar water and pollen grains.
3. Build the hive using wax
4. Clean the hive
5. Collect propolis used to seal the cracks on the hive.
6. Feed the grubs (larvae) on honey
7. Feed the queen bee on royal jelly.
8. Fan the hive to reduce(lower) the temperature
9. Make honey and store it in the honey combs.

**ACTIVITY**

**1. What is apiculture?**

**2. Identify the types of bees in a hive.**

**3. Give the importance of work bees in a hive.**

**GENERAL HABITS OF BEES**

1. Bees make woggle and round dances to communicate
2. Bees swarm from one place to another
3. Bees collect nectar and pollen grain from flower.

**TERMS USED IN APICULTURE**

**Apiculture:** Is the keeping and management of bees (refers to bee keeping)

**An apiary:** Is a farm of bees / a collection of bees hives or a place where bees are kept.

**Hiving:** Is the act of attracting bees to the hive using baits.

**Baits:** are things used to attract bees into the hive e.g. fruit juices, ripe bananas, cow dung etc.

**A colony:** Is a group of bees living together.

**Swarming:** Is the movement of a swarm of bees from one place to another for a purpose.

**Nuptial / marriage flight**

Is a flight during which the drone bee mates with the Queen bee.

**A SWARM**

A swarm is a group of bees either deserted or moving.

Bees always store enough honey in their stomachs to last them for some days.

After swarming, the bees settle down on a branch to wait for the scouts or messenger bees that are sent to look for a new hive to come back.

**Why bees swarm**

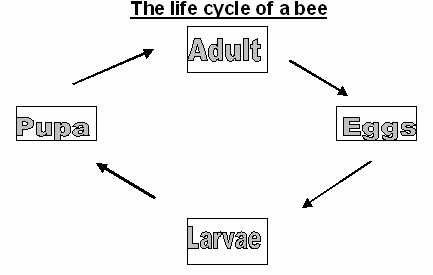
1. Bees swarm when they are overcrowded in the hive
2. When a new queen bee is born.
3. Due to a bad smell near the hive or inside the hive.
4. Due to dampness in the hive (incase the hive leaks)
5. Due to direct sunlight into the hive.
6. In case the bees are attached by enemies.
7. Due to shortage of food and water in an area due to drought.
8. In case the queen bee dies.
9. If there are two or more queen bees in the hive.

**LIFE CYCLE OF A BEE**

Bees undergo a complete metamorphosis i.e.

Eggs – Larva (grubs) - Pupae – Adult (Imago)

**Diagram**



**Bee hives**

Bees naturally hive in holes in the ground, caves or in hollows in big trees.

When a farmer wants to keep bees, he provides for them a shelter called a bee hive.

**Types of bee hives**

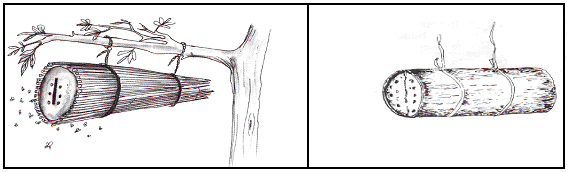
There are two types of bee hive.

1. Traditional (local bee hive)
2. Modern been hive.

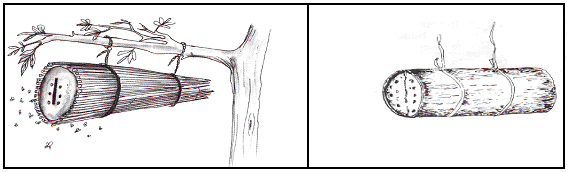
**Local bee hive**

**Examples of local bee hive**

a). Kigezi hive



b). Dug out long bee hive



**Advantages of local bee hive**

1. They are easy to make
2. They are made from locally available materials
3. They are cheap to maintain.

**Disadvantages of local bee hive**

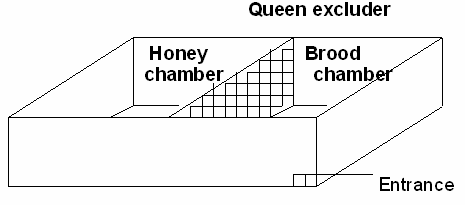
1. It is easily destroyed
2. Not easy to inspect
3. Lasts for time
4. Honey is not always clean
5. Not easy to harvest honey.

**Modern bee hives**

**a.** Top-bar hive

### 

**Internal structure of a modern beehive**



**Section in a modern bee hive**

***Brood chamber***: Where queen lays eggs which later hatch into grubs (larvae)

***Honey chamber:*** This where the worker bees keep honey. Only workers can reach this section.

The honey is clean without eggs or larvae.

***Queen excluder***: Prevents the queen from entering the honey chamber or

Separates the honey chamber from the brood.

Therefore the queen excluder prevents honey from ge3tting contaminated

**Advantages of a top bar hive**

1. The hive can easily be inspected
2. Harvested honey is always clean
3. Top bar hive is durable (lasts for a long time)
4. Only the honey combs which are ready can be harvested.

**Disadvantages of a top bar hive**

A top bar hive is expensive to make.

**STARTING A COLONY**

**Requirements for starting a colony**

* Queen bee
* Baits e.g. sugar solution for the bees to feed on.
* A trough of water to place near the hive.

**Stocking a hive**

Stocking a hive means putting bees in an empty hive to occupy it.

**How is stocking done in apiculture?**

By setting up a hive, putting baits and waiting for the bees to occupy itor Trapping bees into the hive using a swarm catcher.

****

**Diagram of a swarm catcher**

**[](http://www.warre.biobees.com/swarms_bag.jpg)**

NB: The farmer uses the above swarm catcher to transfer the bees trapped to the main hive.

**Seating a bee hive**means selecting a suitable site for placing a hive

**Factors to consider when locating or seating a hive**

* A place away from people or animals to avoid disturbances
* A place away from the main road
* In a sheltered and quiet (under shade) place
* A place near a water source
* A place near flowering plants.

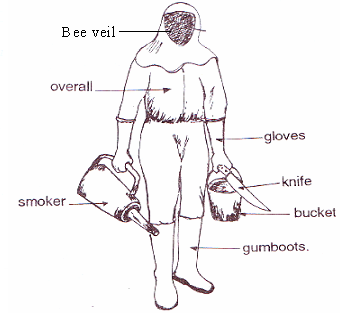
**HARVESTING HONEY**

* Dress in suitable clothing e.g. overall
* Make sure the smoker works properly.
* Lower the hive to the ground to avoid damaging the combs.
* Avoid killing the bees.
* Leave some old combs for the bees to suck honey.

**The best time of the day for harvesting honey**

In the evening when it is cool and all the bees are settled or clam.

**THE HONEY HARVESTER(**person ready to harvest honey)



**Equipment for harvesting**

1. **A bucket** (pan) for collecting honey.
2. **A knife**: used to cut honey combs
3. **Overall** to protect the harvester from stings.
4. **Bees veil**: to protect the face from bee stings
5. **Gloves**: to protect the hands
6. **Gum Boats**: to protect the feet.
7. **A smoker**: to produce smoke that calms bees.

**ACTIVITY**

**1. What is apiculture?**

**2. Identify the types of bees in a hive.**

**3. Give the importance of work bees in a hive.**

**Bee products (summary)**

Honey and bee wax are the main products from bees.

**Other bee products include**

1. Propolis
2. Royal jelly
3. Combs
4. Brood
5. Bee venom

**EXTRACTION OF HONEY**

* Golden yellow combs are removed and crushed.
* The crushed combs are sieved / filtered.
* The wax remains on the sieve as honey drops into a clean container under the sieve.
* Collected honey is then melted over a steam bath.
* After settling, the scum that forms on top of the honey is removed using a spoon or knife.
* At this stage, honey is ready for eating.
* However, it can be sieved a gain to make it purer and give it clean clear colour.

**How to obtain bee wax**

1. Honey combs are placed in a sauce pan filled with warm water.
2. The water may be heated but not at boiling point.
3. The bee wax melts into the warm water.
4. After cooling, wax forms on top of the water.

**Which food value do you mostly get from eating honey?**

We mostly get carbohydrates.

**Importance of honey to man**

1. Honey is eaten directly as food
2. Honey is used to sweeten tea.
3. Liquid honey is eaten with bread and cakes.
4. Honey is used to make alcoholic drinks.
5. Honey is used to treat cough.
6. Honey can be sold to get money.

**Industrial uses of honey**

1. Honey is used to make medicine e.g. cough syrups.
2. It is also used to make sweets, chocolate.
3. It is used in fruit canning as a preservative.
4. Honey is used to make cosmetics e.g. lip shiner.
5. Honey is also used in hospitals to dress wounds in surgical cases.

**Importance of bee wax to man**

1. For making shoe polish
2. For making crayons used in painting
3. For making candle wax
4. To make varnish for furniture
5. To make cosmetics like body creams / Vaseline.

**Advantages of keeping bees**

1. Apiculture takes little space i.e. the land under the lives can be used for crop farming.
2. Less labour and attention is needed since bees look for their own food.
3. Bee farmers get regular income from bee products like honey.
4. Bees pollinate flowers.

**BEE ENEMIES AND DISEASES**

**Examples of bee pests include**

Wood ants

Safari ants

Rats

Wasps

Waxmoths

**Diseases of bees**

Bees are resistant to diseases but the following diseases can attack them:-

American foul brood

Stone brood

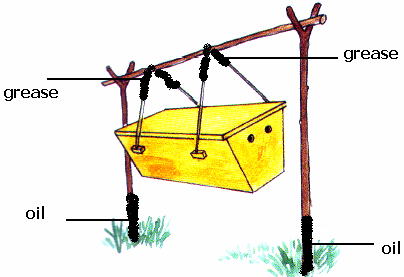
Bald brood

European foul brood

Nosema

**How can we prevent enemies from destroying bees?**

1. By oiling the base of the poles on which bees are.
2. Putting grease on the wives to prevent the ants from climbing.
3. Spraying insecticides at the base of poles to kill the pests.
4. Keeping the grass around the hives short.
5. Hanging the hives in trees 100 – 150cm high.



**TOPICAL QUESTIONS**

**THEME: MATTER AND ENERGY**

**TOPIC MEASUREMENT**

It is the process of finding out how long, short, big, small, heavy or light an object is.

**Mass**

It is the amount or quantity of matter in an object.

It is measured in grams (g), kg (kilograms).

NB: Its standard unit is kg.

**Gravity:** Is the force of the earth that pulls down objects. OrIs the force of attraction that objects have on one another because of their masses.

NB On earth the gravitational force acting on mass is 10N

The size of the force becomes smaller as the object moves further from the surface of the earth.

**Length**

* It is the distance between two point
* It is measured in metres (m), centimeters (cm) Hectometres (hm), millimeters (mm, decameter (Dm) decimeters (dm).

NB: The standard units for length are **Metres**

**Instruments used to measure length**

1. Tape measures
2. Metre rulers
3. Foot rulers
4. Sticks
5. Strings
6. Strides

**A line segment:** Is a line between two points.

**Activity**

Learners draw line segments of different length.

a). 4cm b) 6cm c) 8cm d) 14cm

**AREA**

It is the total space covered by an object.

It is measured in Square Units cm2, m2, dm2, km2.

**Area of a rectangle**

Width (w)

Length (L)

The width is the shorter side of a rectangle

The length is the longer side of a rectangle

Area = Length x Width = sq units

6 squares

By counting the squares

24 squares

Area = L x W

= 6 squares x 4 squares

= 24 squares

4 squares

NB: A regular rectangle has two opposite sides equal.

**Area of a square**

A square has all its sides equal

Area = s x s

Area = s x s

= 4cm x 4cm

= 16cm2

S2

4cm

**VOLUME**

It is the space occupied by an object

It is measured in cubic units (cc, cm2, mm3, m3))

**Regular objects**

They are objects with specific (definite) shapes e.g. cuboids, bricks, blocks, tins, rectangles, square etc

**Finding volume of regular objects**

V = L x W x H = Cubic units

Height (H)

Width (W)

Length (L)

Find the volume of the figure above.

Sample questions

………………………………….

**NB Set word problems as well.**

**Irregular objects-**

These are objects that do not have a specific shape e.g. stones

**Displacement method**

Is the method used to find the volume of irregular objects?

**Instruments used to measure the volume of irregular objects**

1. Measuring cylinder
2. An over flow can or Eureka can

**Activity**

Why do we use the displacement method to find the volume of stone?

It has no specific shape

**Using a measuring cylinder to find the volume of an irregular object.**

**Procedure**

**Step I**

Pour water into a measuring cylinder about half full and record the volume of the water.

**Step II**

Gently lower the irregular object tied on a string into the measuring cylinder.

**Step III**

Record the final level of the water in the measuring cylinder.

**Step IV**

Subtract the first level from the final level.

V = Final level – 1st level

V = 10cc – 5cc

V = 5cc

NB

The volume of the irregular object is equal to the volume of the displaced water.

**Using an over flow can (Eureka can)**

**Step I**

Pour water in the can up to the level of the spout

**Step II**

Put the irregular object tied on a thread gently in the can.

**Step III**

Collect the water that pours out of the can in a measuring cylinder

1. What is the volume of the stone?

**10cc**

1. What is the use of the string (thread) in the experiment above? To gently lower the stone into the water and avoid it from splashing.

**Weight**

1. It is the gravitational force exerted on an object by the earth.

The standard unit of weight is Newton

**Mass**

* It is the amount of matter on an object.
* It is the quantity of matter contained in a body.

**Machines used to measure weight and mass**

1. Beam balance
2. Spring balance-weight
3. Set of scale
4. Scale of balance
5. Weighing balance

**Difference between weight and mass**

1. Mass does not change from place to place while weight changes.
2. Mass is the amount of matter in an object while weight is the force of gravity exerted on an object.
3. Mass is measured in kilograms while weight is measured in Newton (N).

**Floating objects**

Floating is when an object stays on top when thrown on water.

Objects float because they are less dense than water.

When an object floats in a fluid, two forces act on it; its own weight and up thrust force of the fluid.

**Examples of floating objects**

Cork

Plastic

Boats

Sponge

Feather

Leaves

Soft dry wood

Paper

Petrol, paraffin

**Sinking**

It is when an object thrown on water goes to the bottom of the water.

Objects sink because they are denser than water.

**Examples of sinking objects**

Stones

Sand

Soil

Metal

Glass

Nails

Coins

Pins

Clay

Keys

NB: Any sinking objects displace water equal to its volume.

**Density**

It is the ratio of mass to volume of a substance or density of a substance is defined as its mass per unit volume.

The density of water is 1.0g/cc and ice is 0.92g/cc.

We use density bottle to measure densities of substance.

It is measured in units like (kg / cc, gm /cm3, kg/m).

**Activity**

Find the density of an object with mass 400gm and volumes 20cc>

D = Mass (M)

Volume D

D = Mass

Volume

D = 400gm

20

D = **20gm/cc**

**TOPICAL QUESTIONS**

1. Write one sentence to show the meaning of measurement.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

1. How are irregular objects different from regular objects?

……………………………………………………………………………………………………

1. What is the standard measure (units) for length?

……………………………………………………………………………………………………

1. Calculate the volume of the cuboid below.
2. Why does paraffin and petrol float when mixed with water?

……………………………………………………………………………………………………

1. Give one difference between mass and weight.

……………………………………………………………………………………………………

……………………………………………………………………………………………………

1. Identify one object that can float when thrown on water.

……………………………………………………………………………………………………

1. State any two machines that can be used to measure mass.

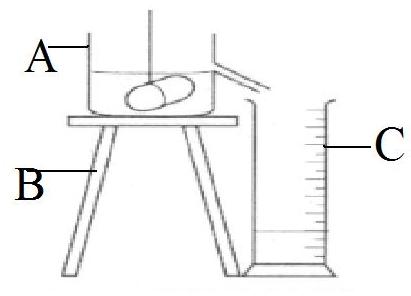
……………………………………………………………………………………………………

……………………………………………………………………………………………………

1. Calculate the density of an object with mass 20gm and volume 2cc.

……………………………………………………………………………………………………

1. Use the experiment below to answer the questions below.

[](http://www.proprofs.com/quiz-school/user_upload/ckeditor/eureka%20can%20label(2).jpg)

* 1. What is the volume of the stone

……………………………………………………………………………………………………

* 1. Name the objects marked

……………………………………………………………………………………………………

* 1. Why is the above method used to find the volume of the stone?

……………………………………………………………………………………………………

1. Why do we use displacement method to find the volume of irregular object?

……………………………………………………………………………………………………

1. What is the meaning of the term sinking?

……………………………………………………………………………………………………

1. Give any two examples of sinking objects.

……………………………………………………………………………………………………

1. Why do some objects sink in water?

………………………………………………………………………………………

**IMMUNISATION/ INOCULATION/ VACCINATION**

Immunization – is the administration/ introduction of vaccines into the body to cause immunity.

OR

Is a way of putting vaccines into the body in order to cause immunity.

**IMMUNITY**

Immunity is the body’s ability to resist disease attack.

**TYPES OF IMMUNITY**

There are two types of immunity.

1. Natural immunity.
2. Artificial (acquired immunity)

**Natural Immunity**

Is the type of immunity a baby or a person gets without introduction of vaccines. This can be got through breast feeding, from mother to baby through the placenta.

Eating a balanced diet and develops as a result of infection.

The baby gets it as it develops in the mother’s womb.

**Artificial Immunity**

Is the type of immunity a baby gets through receiving vaccines in the body.

After birth, a child is immunized and gets immunity.

**VACCINES**

Vaccines are medical substances which are introduced into the body to produce antibodies against certain diseases.

Vaccines take the form of dead or weakened bacteria or viruses that can still act as antigens.

Vaccines can be administered orally or through an injection.

**ANTIBODIES**

These are chemical substances produced by white blood cells to defend the body against diseases

**Activity**

**1. What is immunization?**

**2. List down the six immunisable diseases.**

**3. What is immunity?**

**TYPES OF VACCINES**

There are three types of vaccines

1. Toxoids
2. Attenuated vaccines
3. Killed vaccines

**Toxoids**

They are prepared from toxins produced by bacteria in the body. They are made harmless and injected into the body like T.T vaccines.

**Killed / Dead vaccines**

These are killed bacteria or virus that has been grown in suitable host cells. They are made harmless before being injected into a person e.g. cholera and the sack anti polio vaccine.

**Attenuated vaccines**

These are live bacteria or viruses which have been weakened in such a way that they cannot cause diseases. When injected into the body, they cause immunity.

**Importance of immunity to our body**

Protects us from being attacked by diseases.

Boosts our body immune system.

**How does baby get immunity?**

1. From mother to child during development in the womb.
2. Through immunization from vaccination.
3. After suffering and recovering from an illness.

**Activity**

**1. What is immunization?**

**2. List down the six immunisable diseases.**

**3. What is immunity?**

**CHILDHOOD IMMUNIZATION DISEASES**

The six childhood killer diseases attack children below the age of six years.

These are:

* Poliomyelitis (Polio)
* Measles
* Tuberculosis
* Diphtheria
* Whooping cough (pertussis)
* Tetanus

**Other Immunisable diseases**

* Cholera
* Yellow fever
* Meningitis
* Rabies
* Typhoid
* Small pox (already eradicated)
* Hepatitis B
* HaemophilusInfluenza B
* Rubella (German measles)
* Typhus fever
* Plague

**DISEASES, CAUSE, SIGNS, SYMPTOMS, PREVENTATION AND TREATMENT**

1. **Tuberculosis.**

**Cause - bacteria (mycobacterium tuberculosis)**

It usually attacks the lungs, bones, joints and the brain

How its spread.

Through air/coughing or sneezing

**Signs (**what is seen with our eyes)

* A lot of sweating
* Loss of weight
* Chronic cough
* Loss of skin color
* Thick sputum

**Note;** Sputum is a liquid from the throat or lungs especially when it’s coughed as out because of a disease.

**Symptoms**

* Mild fever
* Loss of appetite
* General body weakness
* Chest pain.

**Treatments**

* Use antibiotics

**Prevention**

* Immunize with BCG vaccine.
* Eats a balanced diet
* Avoid sharing, cutting, cups, plates
* Isolation of sick people
* Drinking properly boiled milk

1. **Measles**

Causedby virus

Measles is spread by contact with the nose or throat secretions of infected people and in air borne droplets.

**Signs**

* Sore in the mouth
* Runny nose
* Skin rash
* Dry cough
* Red eyes

**Symptoms**

* High temperature (fever)
* Itching skins
* Body weakness

**Prevention**

- Isolation of infected persons.

- Immunize with measles vaccine at 9 months after birth

**Treatment**

There is no proper treatment but we can control symptoms

1. **Whooping cough (pertussis)**

It’s a respiratory disease caused by a bacteria called Bordetella Pertussis.

Its spread through droplet infection (coughing and sneezing)

**Signs**

* Running nose
* Severe coughing with spells that end with whoops
* Watery discharge from eyes, sneezing.
* Quick deep breath
* Mild cough.

**Symptoms**

* Fever
* A cold

**Treatment**

Treat with anti-biotic

1. **Diphtheria**

Caused by bacteria

**Signs**

* Swollen neck
* Sore throat

**Prevention**

* Immunize with D P T vaccine
* Isolation of infected persons.

**Treatment**

Use antibiotics

1. **Tetanus**

Caused by bacteria called Clostridium tetani.

**Signs**

* Stiff muscles all over the body especially the jaws
* Sudden and strong muscles that spasm when touched
* Baby stops suckling
* Difficulty in swallowing.

**Symptoms**

* Fever

**Prevention / Treatment**

* Immunize with D P T vaccine
* Immunize with TT vaccine for females between 15 – 49 years

1. **Poliomyelitis (polio)**

Caused by a virus

Its spread through drinking or eating contaminated water and food

**Signs**

* Paralysis in the limbs (legs / hands)

**Prevention of polio**

* Drinking boiled water
* Proper disposal of faeces
* Immunize with polio vaccine

**Symptoms**

* High fever
* Weakness of the body

**Activity**

1. **Identify the vaccines given to a baby at birth.**
2. **Name any two signs of measles.**
3. **How is polio spread?**

**Other Immunisable diseases**

**CHOLERA**

* Caused by bacteria
* Spread through drinking contaminated water
* Spread through eating contaminated food.

**Signs**

* Excessive diarrhea
* Excessive vomiting

**Treatment**

* Give ORS
* Give fluids like juice, waters and milk.
* Take to the health centre.

**Prevention**

* Drinking boiled water
* Wash hands before handling food
* Ensure proper disposal of refuse
* Ensure proper of latrines
* Cover all cooked food and leftovers
* Prepare food in a clean place and eat it from a clean container.
* Observe general cleanliness of both body and environment

**HEPATITIS B**

It’s caused by Hepatitis B virus.

It affects the liver.

Spread by contact with blood of an infected person.

**Symptoms**

Body weakness

Stomach upset

**Signs**

Very dark urine

Very pale stool

No treatment

**Prevention**

Immunize with Hepatitis B antibiotics (Hepatitis B serum) HIB vaccine

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **AGE** | **VACCINE** | **DISEASE** | **METHOD OF IMMUNIZATION** |
| a | At birth | BCG &  (OPV)Polio vaccine | Tuberculosis  polio | Injection-right upper arm  Drops in the mouth |
| b | 6 weeks | DPT vaccine  (OPV)Polio vaccine | Diphtheria Pertussis Tetanus Poliomyelitis | Injection on the left upper thigh  Drops in the mouth |
| c | 10 weeks | DPT vaccine & (OPV)  polio | Diphtheria Pertussis Tetanus Poliomyelitis | Injection on the left upper thigh  Drops in the mouth |
| d | 14 weeks | DPT vaccine & Polio vaccine (IPV) | Diphtheria Pertussis Tetanus Poliomyelitis | Injection on the left upper thigh  Drops in the mouth |
| e | 9 months 36 weeks | Measles vaccine | Measles | Injection on the left upper arm. |

**IMMUNIZATION SITES**

**Activity**

1. **Name the two types of immunity**
2. **How does a baby acquire natural immunity**
3. **Name the types of vaccines**

**4. How is polio vaccine administered to a baby?**

**5. On which site is BCG vaccine applied?**

**6. Why is DPT vaccine known as a triple vaccine?**

**IMMUNIZATION CARD (C H C) CHILD HEALTH CARD**

This is a card given by health workers at a health centre to every child (baby) who receives immunization

**A child health card shows the following information about a baby**

1. Date of birth (D.O.B)
2. Date of next visit for immunization
3. Vaccine received and date
4. Birth weight of the child
5. Child’s name
6. Parent’s name, place of residence, parent’s occupation.
7. Birth order
8. Doctor’s advice to health growth and nutrition of the child.

**Importance of immunization**

1. Helps to remind the parent of the next date of visit for immunization
2. Helps the parent to monitor the child growth

Helps both the doctor and the parent to know which vaccine was already given and which one is remaining

**Roles of individual families and communities in immunization**

1. **Individuals**

* Helps to inform other family members and neighbors on immunization dates and venue.
* Learning how to immunize so that they can help the health workers.
* Help to accept and convince other people to accept immunization as an important programme
* Encourage others to take their children for immunization.
* Assisting health workers in arranging the places selected for immunization

1. **Family**

* Share all information that they know about immunization.
* Parents should make sure that all children and pregnant women are immunized.
* Bigger children should take younger ones for immunization

1. **Community**

* Organize seminars, workshops, plays and concerts to educate others about immunization
* Schools should perform plays and concerts about immunization on open days and speech days.

**NOTE:** The common immunization centers in our communities include; hospital, clinics, dispensaries, health centers etc.

**THEME HUMAN BODY**

**TOPIC: THE DIGESTIVE SYSTEM**

**DIGESTION** – Is a process by which food is broken into simple forms that can be absorbed into the blood stream.

**THE DIGESTION SYSTEM**

Is a group of parts which work together to digest food in the body.

**The alimentary canal (digestive gut)**

Is the tube in the body of animals in which food moves by peristalsis

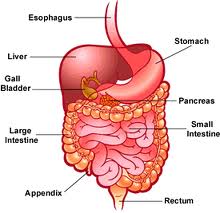
**Alimentary canal**

Is the muscular tube that runs from the mouth to the anus.

**Parts of the alimentary canal**

* Mouth
* Gullet Colon
* Appendix
* Rectum
* Pancreas
* Liver
* Appendix
* Rectum
* Pancreas
* Liver

**THE DIGESTIVE SYSTEM OF MAN;**



**Uses of the parts of the digestive system**

1. **Mouth**

* It is where digestion begins.
* Food is broken into simpler forms.
* Food is mixed with saliva to make it soft for easy swallowing.

**Saliva**

* It is a digestive juice produced by the salivary glands in the mouth
* It has an enzyme called salivary amylase or ptyalin.
* Ptyalin breaks down starch into maltose.
* It also has mucus which lubricates the food.

1. **Thetongue**

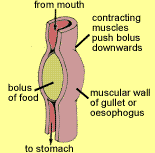
* It rolls food into bolus
* It is used for tasting.
* It pushes the food into the gullet

1. **Gullet (esophagus)**

It leads food from the mouth to the stomach.

Food passed through the gullet by the process of peristalsis.

Illustration of peristalsis.

[](http://www.abpischools.org.uk/res/coResourceImport/resources04/digestion/images/5d4oesoph.gif)

1. **Epiglottis**

* It prevents food from entering the wind pipe.

1. **Stomach**

* It keeps food for 1-4hrs depending on the type of food.
* The stomach walls produce the gastric juice and hydrochloric acid

**Hydrochloric acid –** kills most of the germs brought by the food into the stomach.

* Activates gastric juice enzymes (pepsin & rennin) that start the digestion of proteins.

Alcohol, drugs, salts are absorbed in the stomach.

1. **The duodenum**

* It is the first section of the small intestine.
* It receives bile and pancreatic juice through the bile duct &pancreatic duct respectively.
* It is where lipids are digested by the pancreatic lipase to fatty acids and glycerol.

1. **The liver**

* It produces the bile.

1. **Gall bladder**

* It keeps or stores the bile.
* Bile has salts that break (emulsify) fats for easy digestion.

1. **The pancreas**

* It produces the pancreatic juice. It also produces insulin hormone that helps to regulate blood sugar.
* The pancreatic juice contains enzymes (amylase, trypsin, & lipase) that complete the digestion of carbohydrates, proteins and fats& oils respectively.
* ***.Proteins*** are broken down to *amino acids*, ***carbohydrates*** to *glucose*&***lipids*** to *fatty acids & glycerol.*

1. **The ileum**

* It is the second part of the small intestine
* It is where the digestion of food ends.
* It is where the absorption of digested food takes place.

**Absorption**

***Is a process by which digested food is taken into the blood stream.***

* The ileum has finger like projection called the villi
* The villi absorbs food
* The walls of the ileum produce a juice called intestinal juice that completes the digestion of food.

**How the small intestines is adapted to its function**

* It has a large surface area made of villi and micro villi
* It has a lot of blood capillaries which allow the transportation of blood molecules all over the body.

**The colon**

* It is where water is absorbed or take place

**Rectum**

* It keeps the undigested waste materials before they are passed out

**Anus**

* It passes out the undigested materials
* It is used for digestion

**Components of faeces**

* Water
* Dead cells
* roughage
* Bacteria

**Activity**

**1. List down two disorders of the digestive system.**

**2. Give the function of gastric juice in the stomach.**

**3. Identify any two ways of maintaining the digestive system**

**Disorder and disease of the digestive system**

**Disorder**

They are problems that can make the alimentary canal fail function well.

**Constipation**

It is when the undigested matter stays in the rectum for too long.

**Causes**

* Lock of roughage in the diet
* Drinking little water
* Lack of physical exercise

**How to prevent constipation**

* Eat fruits and vegetables e.g. mangoes, apples e.t.c.
* Doing plenty of physical exercises.
* Drinking water before and after eating food.
* Eating a balanced diet.

**B)Indigestion**

It occurs when the food we eat is not properly digested

**Causes of indigestion**

* Improper chewing of food
* Over eating

**Symptoms of indigestion**

* Stomach ache
* Heart burns
* Tiredness/ fatigue

**Prevention of indigestion**

1. Chewing food properly before swallowing.
2. Drinking enough water before and after eating food.

**Vomiting**

1. It is a disorder caused eating poisonous food or over eating
2. It can also be caused due to some diseases e.g. malaria

**Diseases of the digestive system**

1. **Appendicitis**

* It is caused by bacteria that enters the appendix
* It leads to swelling of the appendix
* It causes too much pain in the lower right side of the abdomen.
* It can be treated by cutting it off.

1. **cholera**

* cholera is used by bacteria
* It is spread by houseflies, cockroaches.
* It is also spread by drinking contaminated water, eating contaminated food.

**Symptoms of cholera**

Pain around the abdomen

**Control of cholera**

1. Boil water before drinking it.
2. Kill houseflies by spraying
3. Wash hands before eating, serving or handling food.
4. Wash hands after visiting the toilet or latrine
5. Cover cooked food to keep away houseflies.
6. Properly dispose human faeces
7. **Typhoid**
8. It is caused by bacteria
9. It can be spread by house flies
10. Typhoid can be spread by drinking contaminated water and eating dirty food

**Signs of typhoid**

* Diarrhea

**Symptoms of typhoid**

* Headache
* Fever

**Prevention of typhoid**

* Boiling water for drinking
* Spraying insecticides to kill houseflies
* Washing hands before eating food
* Wash hands after visiting the latrine or toilet
* Properly disposing rubbish and faeces

1. **Dysentery**

* The frequent passing out of watery stool with blood stains.
* Amoebic dysentery is caused by amoeba.
* Bacillary dysentery is caused by a bacteria

**Spread of dysentery**

1. Drinking contaminated water
2. Eating contaminated food
3. Houseflies carry germs onto the food and hands.

**Control of dysentery**

1. Boiling water for drinking
2. Washing fruits before eating them
3. Spraying insecticides to kill houseflies
4. Washing hands before eating, serving food
5. Wash hands after visiting the toilets

**Dangers of dysentery**

1. It leads to dehydration
2. It leads to anaemia
3. **Peptic ulcers (stomach ulcers)**

* They are wounds formed in the stomach or small intestine
* They cause a lot of pain especially when one is hungry

**CARE FOR THE ALIMENTARY CANAL**

1. Wash hands before eating
2. Chew food properly before swallowing it
3. Wash hands after visiting a toilet or latrine
4. Eat well looked food
5. Avoid eating very hot or cold food
6. Having regular physical exercise
7. Having enough rest after eating
8. Brushing the teeth after eating food

**TOPICAL TEST**

1. Why is it important for a young child to properly chew food before swallowing? ....................................................................................
2. How is the hydrochloric acid produced by the stomach importance to us?
3. Mention the process that takes place in the following parts of the alimentary canal?

Stomach…………………………………………………………….

Small intestines………………………………………………………………..

Colon…………………………………………………………………

1. How is bile produced by liver important to our bodies?
2. How is the small intestine adopted to its function?

………………………………………………………………………………………………..

1. Write down any two diseases that affects the digestion system?

………………………………………………………………………………………………………………….

1. Briefly explain the term digestion? ..................................................
2. Where does digestion begin in a p.5 child’s body? ................................
3. Where does digestion end in our bodies? ..................................................
4. State any two ways of keeping our digestive system in proper working conditions.
5. State any two disorders of the digestive system. ……………………………………
6. In which parts of the digestive system are the following juices produced.
7. Bile juice………………………………………………………
8. Gastric juice…………………………………………………
9. Saliva……………….

|  |  |  |
| --- | --- | --- |
| **Theme** | **Topic/Theme** | **Teachable unit/ deliverable lesson** |
| **THE ENVIRONMENT** | **COMPONENTS OF ENVIRONMENT- SOIL** | **Lesson one**  **SOIL**   * Soil is the top layer of the earths’ surface.   **Types of soil**   * There are three types of soil namely;   1. Sand soil  2. Loam soil  3. Clay soil  **Soil formation**   * Two process lead to the formation of soil namely  1. Weathering 2. Decomposition   **Weathering**   * Weathering is the breakdown of large rock particles in to small soil particles.   **Decomposition**   * Decomposition is the breakdown of dead decaying substances into small soil particles.   **Activity**   1. In one sentence, give the meaning of the term soil. 2. Apart from clay soil, state the two other types of soil.   1\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  II\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Identify to process that lead to the formation of soil.   I\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  II\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Name one living organism in the soil that helps during the process of decomposition. 2. Which type of soil is mainly formed by decomposition?   **Lesson two**  **Properties of different types of soil**   1. **Loam soil**  * Has balanced particles of sand clay. * It contains more humus than sand and clay. * It is more aerated than sand and clay. * Moderately drains water.   **Note**   * Loam soil is the best for crop growing.  1. **Sand soil**  * It has large and rough particles. * It is well aerated because it has large air spaces. * It dries out quickly. * It has poor capillarity. * It drains water very fast.   **Note:**   * Sand soil is the best for construction and building because it dries out quickly.   **3. Clay soil**   * It has fine smooth particles. * Difficult to plough because it is sticky when wet. * It is poorly aerated because it has fine packed particles. * It has highest capillarity.   **Activity**   * Finding the soil with the highest/lowest drainage   **Requirements**   1. Funnels 2. Filter paper 3. Types of soil samples 4. Water containers   **Procedure**  1. Place a filter paper in each funnel.  2. Half fill every funnel with equal volume of dry soil.  3. Place above containers as below.  4. Pour equal amount of water in each.  **Illustrations**      **Observation**   * After some time, observe the amount of water in each container.   **Questions**  1. Which container had more water?  2. Name the soil samples.  A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  B \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  3. Identify the best type of soil for;  (a) Pottery\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (b) Crop growing\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **Lesson three**  **Components of soil**   * Water * Dissolved mineral salts * Air * Rock particles * Humus * Living organisms   **Humus (Organic matter)**   * Humus is formed from dead decaying matter. * Bacteria and fungi help in the formation of humus. * Humus adds nutrients to the soil. * It gives the soil the dark colour which helps to absorb heat from the sun.   **Water**   * Water helps to dissolve many minerals to form solution. * Water is a raw material for photosynthesis.   Air   * Air is found in spaces between soil particles. * Air helps in respiration. * Air enables living organisms in the soil to breathe.   **Living organisms**   * Living organisms help in decomposition and - in the soil.   **Examples**   * Earthworms * Bacteria * termites   **Dissolved mineral salts**   * They dissolve in water to form plant food in form of solutions.   **Examples of mineral salts**   1. **Potassium**  * It helps to build resistance to diseases and drought.  1. **Calcium**  * It strengthens plant stems and leaves.  1. **Phosphorus**  * It helps in the formation of strong cell wall of plants.   **Importance of soil to man**   * For crop growing. * Making crafts (pottery and ceramics). * For building and construction. * Source of minerals for income generation   **Importance of soil to plants**   * Soil holds water for plants. * It contains air needed by plants roots. * Holds plants firmly into the soil. * Provides nutrients to plants   **Activity (Illustrations)**  **Soil contains air and water**  Soil contains air.   * Things needed include; water, soil sample, beaker.   **Procedure**   * Pour water into a container/beaker. * Get a lump of soil and lower it into the beaker as shown below.     **Questions**   1. What did you observe as soil was lowered in the water? 2. What do the air bubbles represent? 3. What does the experiment show about soil?   **Soil contains water**.   * -Get a soil sample into a beaker. * -Place the beaker on fire and heat while covering in the beaker as shown below.   **Illustration**    **Activity**  **1.** What is formed on the cover of the beaker after some time?  2. What do droplets represent?  3. What does the experiment show about soil?  4. By what physical process are the droplets formed?  **Lesson four**  **Soil erosion**   * Soil erosion is the removal of top soil by its agents. * An agent of soil erosion is something that carries top soil from one place to another.   **Agents of soil erosion**   * ­­Flowing water * Animals * Strong wind   **Types of soil erosion**   * Gully erosion * Rill erosion * Sheet erosion * Splash/raindrop erosion  1. **Gully erosion**  * This is a type of erosion where flowing water makes big tunnels along its path.  1. **Rill erosion**  * This is erosion where flowing water makes small tunnels called rills along its path.  1. **Sheet erosion**  * This is the type of soil erosion where a thin layer of soil is uniformly removed.  1. **Splash erosion**  * The type of erosion where rain drops fall on ground and splashes or removes the soil.   **Activity**   1. In one sentence, give the meaning of the term soil erosion. 2. What type of erosion is common in hilly areas? 3. List down two agents of soil erosion.   (I)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (II)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Mention any two types of soil erosion.   (I)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (II)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. Name the type of soil erosion common in deserts. 2. How is soil erosion dangerous to a crop farmer?   **Lesson five**  Read and spell the words  Deforestation Mulching agro forestry Bush burning over grazing  **Causes of soil erosion**   * Mono cropping * Bush burning * Deforestation * Ploughing downhill * Over grazing  1. **Deforestation**  * This is the massive cutting down of trees without replacement. * It leaves the soil exposed to erosion agents.  1. **Over grazing**  * This is the grazing of animals in the same piece of land.  1. **Mono cropping**  * The growing of the same type of crop in the same piece of land seasonally.   **Activity**  1. Give the meaning of the following;  (a) Deforestation  (b) Mono culture  2. Mention any four causes of soil erosion.  (I)\_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (II) \_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (III) \_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (IV) \_\_\_\_\_\_\_\_\_\_\_\_\_­­­­­­­­­­­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  3. How do the following activities lead to soil erosion?  (a) Deforestation  (b) Bush burning  (c) Ploughing downhill  4. What is deforestation?  5. Give one way in which over grazing can be prevented.  **Lesson six**  **Read and spell the following words;**  Soil fertility silting Agro forestry soil exhaustion deposition mulching  **Effects of soil erosion**   * Soil erosion leads to loss of soil fertility. * It leaves the plant roots bare. * It leads to silting of water bodies. * It destroys roads by making trenches.   **Methods of controlling soil erosion**   1. **Afforestation**  * Afforestation is the planting of trees where they never existed.  1. **Bush fallowing**:  * This is leaving the land to rest for some time without cultivation.  1. **Crop rotation**  * This is the growing of different types of crops on the same piece of land seasonally.  1. **Agro forestry**  * This is the growing of crops alongside trees in the same piece of land.  1. **Mulching**  * This is the covering of top soil with dry plant materials.   **Activity**   1. Mention any four ways of controlling soil erosion. 2. How do the following control soil erosion? 3. Mulching 4. Crop rotation 5. Bush burning   3. State any three effects of soil erosion to the environment.  4. What are mulches?  5. Give two examples of mulches.  **Lesson seven**  **Read and spell the words:**  Conservation  Crop rotation  Dumping  -pollution  Fertility  Mulching   1. **Soil conservation**  * This is the maintenance of the quality and productivity of the soil.  1. **Ways of conserving soil** 2. **Proper disposal of solid wastes** e.g. polythene bags, plastic materials, and broken glasses. 3. **Proper disposal of liquid wastes**. E.g. oils, pesticides. 4. **Controlling soil erosion**   **Activity**   1. State the meaning of the word soil conservation. 2. Give two ways how soil is conserved in hilly areas.   (I)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  (II)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  3. What is silting?  4. Give any two effects of silting to the water body.  5. How does crop rotation conserve soil?  **Lesson eight**  **Soil fertility**   * Soil fertility is the ability of soil to support good plant growth.   **Ways of improving soil fertility.**   1. **Practicing crop rotation**  * Crop rotation is the growing of different types of crops on the same piece of land season after season.  1. **By bush fallowing**  * This is the leaving of the land to rest for some time without crop growing so that it can regain its fertility.  1. **By practicing mulching**  * Mulching is the covering of top soil with dry plant materials. * When mulches rot, or decompose, they form soil humus.  1. **By using fertilizers.**  * These are substances added into the soil to improve its fertility.   **Activity**   1. What is soil fertility? 2. How do the following improve soil fertility? 3. Crop rotation? 4. Mulching 5. Bush fallowing 6. Why is it good to maintain soil fertility? 7. Define the term mulching. 8. Give any one danger of mulching to the garden.   **Lesson nine**  **Fertilizers**   * Fertilizers are chemicals added into soil to improve its fertility.   **Types of soil fertility**   1. Natural fertilizers 2. Artificial fertilizers   **Natural fertilizers**   * These are formed from plants and animal remains.   **Examples of natural fertilizers**   1. Green manure  * This is the manure got from decayed green plants buried in the soil.  1. Farm yard manure (FYD)  * This is the manure got from dropping and urine from animals.  1. Compost manure  * This is the manure got from decayed household refuse for example leftover food.   **Making compost manure**   * Compost manure is got from household refuse, plant remains, leftover food and kitchen refuses.   **Methods of making compost manure**   1. Pit method 2. Heap method   **Procedure**   * Mix the household refuse/ plant remains/ garbage. * Put them in the dug pit that can easily allow you to turn when above. * Sprinkle water onto the mixture. * Allow the mixture to decay. * Turn the mixture after 14 days. * Keep turning it after every two weeks for three more times. * After three successive tunings the manure will be ready. * **Advantage of natural manure** * They do not pollute the soil. * They improve soil structure aeration and texture. * They supply valuable nutrients released slowly. * They stay longer in the soil.   **Disadvantage of natural manure**   * They are bulky to carry. * They are tiresome to make. * It may not be easy to collect material. * They are smelly and may pollute the air around. * They need to be applied in large amounts.   **Activity**   1. Write FYD in full as used in fertilizers. 2. What type of organic manure is got from plant remains? 3. State two advantages of natural manure. 4. Mention two ways of making compost manure.   **Lesson ten**  **Artificial fertilizers**   * These are man-made chemicals substances that are used to supply plants nutrients.   **Groups of artificial fertilizers**   1. **Straight fertilizers**  * These are fertilizers that supply one primary nutrient like nitrogen, phosphorus, Single Super Sulphate (SSP) and Sulphate of ammonia.  1. **Compound fertilizers**  * These are fertilizers that provide two or more mineral nutrients for example CAN, DAP, MAP, NPK   **Methods of applying artificial fertilizers**   1. Broadcasting in the garden 2. Placing around the crop (placement) 3. By spraying 4. By injecting into the stem.   **Advantages of artificial fertilizers**   * They are quick in improving soil fertility. * They are easy to apply. * They contain right nutrients. * They release nutrients quickly into the soil.   **Disadvantages of artificial fertilizer**   * They are expensive to buy * They need skilled man power to apply. * They may be poisonous if used in excess. * They are poisonous to human life.   **Activity**   1. State two methods of applying artificial fertilizers 2. What type artificial fertilizers have one primary nutrient? 3. State any two advantages of artificial fertilizers over natural fertilizers. 4. Write one disadvantage of using artificial fertilizers. 5. Give a reason why one should wear protective gears when applying fertilizers. |
| **ATTER AND ENERG**Y | **MATTER** | **Lesson 1**  **MATTER**  **Read and spell**   |  | | --- | | ***Matter, Mass, Weight, Occupies*** |   **MATTER**   * **Matter** * Matter is anything that occupies space and has weight. * M**ass** * Mass is the amount /quantity of matter contained in an object. * **Weight** * Weight is the force of gravity acting normally on an object. * **Properties of matter**  1. **Matter has weight**.      1. **Matter occupies space**      1. **Matter expands when heated.**      1. **Matter exerts pressure.**      * **Examples of matter** * Chair * Air * Water * Milk   **Activity**  1. What is matter?  2. What property of matter enables us drink soda using a straw?  3. Give the reason why hydrogen gas is regarded as a matter?  4. State one property of matter.  **Lesson 2**  **States of matter**  **Read and spell**   |  | | --- | | ***Matter ,Liquid, solid, Gaseous ,Molecules, Definite*** |   **States of matter**  1.Solid  2.liquid state  3.Gaseous   * Matter is made up of molecules so each state of matter has different arrangement of molecules.  1. **Solids**  * Molecules are closely held together. * They have a definite shape. * They expand when heated. * They have great cohesion. * **Arrangement of molecules in solids**   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg   * **Examples of solids**.  1. Salt crystals iv) Stones vii) Soil 2. Books v) Porridge viii) Yoghurt 3. Tables vi) Chairs ix) Pens 4. **Liquids**  * Molecules are relatively spaced * They don’t have a definite shape * They take the shape of the container * **Examples of liquids**  1. Water 2. Juice 3. Milk 4. Soda  * **Arrangement of molecules in liquids**   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg   1. **Gases**  * Molecules are far apart * Most cannot be seen but felt * They do not have definite shape or volume. * Heat travels fastest in gases because molecules are free to move * **Arrangement of molecules in gases**   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg   * **Examples of gases**  1. Smoke 2. Oxygen 3. Nitrogen 4. Hydrogen 5. Carbon dioxide  * **Adhesion and cohesion forces** * Cohesion is a force attraction between molecules of the same substance like glass and glass. * Adhesion is a force attraction between different substances e.g. water and glass.     **Activity**  1.Define the term matter  2. Name the state of matter shown in the diagram below.    a) A  b) B  c) C  3. Why don’t molecules of solids freely move?  4. To which state of matter do the following belong?  a)porridge  b)milk  c) ice  5. Why does heat travel fastest in gases?  **Lesson 3**  **Mixtures**  **Read and spell**   |  | | --- | | ***Mixture, solvent, substance, solute, solution*** |  * **Mixtures** * A mixture is a combination of two or more substances. * **Examples of mixtures** * A mixture of sand and salt. * A mixture of gases. * A mixture of grains and chuff. * A mixture of rice and beans. * A mixture of oil and water. * **Solutes, solvents and solutions** * A solute is a substance that dissolves in a solvent e.g. salt, sugar and glucose. * A solvent is a substance that dissolves a solute e.g. water, milk, kerosene * A solution is a uniform mixture of a solute and solvent.   **Activity**  1. Name any two substances that can dissolve in water.  2.Why is water called a universal solvent  3.In one sentence, give the meaning of ;  a)solute  b)solvent  c) solution  4. State any one example of a solution.  5. Why does salt disappear when put in water?  **Lesson 4**  **Separating mixtures**  **Read and spell**   |  | | --- | | ***Winnowing, Decantation, Magnet, Cereals*** |  * **Physical sorting** * This is a method where the hands are used to pick big particles from small particles e.g. picking stones from rice. * **Winnowing** * Separating cereals from husks.   **3. By using a magnet**   * This method is used when one substance is a magnetic material.   **4. Decantation/Decanting**   * The method of separating solid from a liquid. * The method allows the mixture to settle for same time such that solid particles settle at the bottom.   **Step one**   * Water mixed with impurities.   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg  **Step two**   * Impurities left to settle at the bottom of the container.   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg  **Step three**   * Clear water carefully poured off into a clean container.   C:\Users\hp\Documents\Scanned Documents\pivs.jpeg  **Activity**  1. Mention any one example of a mixture separated using hand picking.  2. Apart from decanting, state two other methods of separating mixtures.  3. Give one example of a magnetic substance.  4. How can you separate salt from water?  5. Why is it easy to separate husks from millet grains by winnowing?  **Lesson 5**  **Filtration , Distillation, Floatation, Using a separating funnel** a**nd** **Boiling to dryness**  **Read and spell**   |  | | --- | | ***Fertilization, filtrate, sieve, distillate, residues*** |   **5.Filtration or filtering**   * This is a method of separating solids from liquids using a filter paper and a funnel.eg separating seeds from juice.   C:\Users\hp\Documents\Scanned Documents\filtration.jpeg  **Note**;   * A filtrate is a pure substance that is collected. * A residue is the unwanted substance that remains in the sieve.   **6.Distillation**   * This is a method of separating liquids from impurities that are dissolved in it. * It involves heating the impure liquid and its vapor condensed e.g. a mixture of muddy water.   **Illustration of distillation**  **C:\Users\hp\Documents\Scanned Documents\local set up of dist.jpeg**  **Note**  The final product of distillation is called a distillate.  **7.Floatation**   * A method of separating mixtures where one sinks and the other floats e.g. mixture of saw dust and sand and a mixture of millet grain and stones.   **8. Using a separating funnel**     * The method is used to separate liquids which do not mix easily e.g. a mixture of oil and water, petrol and milk.   **9. Boiling to dryness**  **Activity**  **Project work**   * Boiling to dryness e.g. separating a mixture of sand and salt.   **Procedure**   1. Put the mixture into a container. 2. Pour water into the mixture and stir to dissolve the salt. 3. Filter the salt solution. 4. Boil the solution and evaporate to dryness.  * **Write what is observed in the sauce pan.**   **Lesson six**  **Energy**  **Read and spell**   |  | | --- | | ***Kinetic, potential, heat, motion*** |  * **Energy** * Energyis the ability to do work.   **Types of energy**   * Kinetic energy * Potential energy  1. **Kinetic energy**  * This is a type of energy possessed by objects in motion or moving objects.   **Examples**;   * A ball rolling * A boy running * A rolling stone * An insect flying  1. **Potential energy**  * This is the type of energy possessed by objects at rest or stationary objects.   **Examples**   * A stone resting on the ground * A book resting on a table * A baby sleeping in a cot * A car standing/parking. * **Forms of energy** * Heat energy * light energy * magnetic energy * solar energy * sound energy   **Activity**  1. What is kinetic energy?  2.What kind of energy is possessed by;  a) A leaf falling to the ground?  b) A snake coiled in the corner of a house?  c) A passenger in a moving car?  3. Use the pendulum bob or a stone swinging in air to answer questions  C:\Users\hp\Documents\Scanned Documents\electricity.jpeg  4. What type of energy is possessed by the stone at  A  B  4.What type of energy is possessed by the ball  a)before kicking it  b) After kicking it.  5. Write two forms of energy produced by the ball after immediately the goal keeper catches it?  **Lesson 7**  **Heat energy**  **Read and spell**   |  | | --- | | ***Degree, Fuel, Charcoal, friction*** |  * **Heat** * **Heat** is the form of energy that causes the temperature of matter to increase * **Sources of heat** * A heat source is anything that can produce heat  1. The sun (the main source of heat energy in the environment) 2. Friction – objects rubbing together 3. Food 4. Decaying matter 5. Burning fuel e.g. Charcoal, firewood.  * **Uses of heat** * For cooking * Heat helps in rain formation * For drying clothes * For drying harvested crops * Heat helps in killing germs * For roasting food * Heat from the sun provides warmth fort seed germination.   **Activity**  1.Apart from the sun, name any two sources of heat  2.Why is the moon not a source of heat  3. Mention two uses of electricity at home.  4. What is fuel?  5.Mention two examples of liquid fuels  6. Name the form of energy obtained from the sun.  **Lesson 8**  **Effects of heat on matter**  **Read and spell**   |  | | --- | | ***Expansion, Contraction, Brass, decrease, balloon*** |  * **Effects of heat on matter** * Heat makes some objects to expand * Heat changes some state of matter. * Heat increases the temperature of matter. * **Expansion and contraction**  1. **Expansion**  * This is the increase in size of an object.  1. **Contraction**  * This is the decrease in size of an object. * Different states of matter expand at different rates. * Gases expand fastest, followed by liquids and solids last.   **Expansion in solids**     * The brass ball passes through the ring before and falls after heating due to expansion. * A ball is empty before air in the balloon heated, it swells in B after expansion of heated air in B  1. **Bi metallic strip**  * A bimetallic strip is a strip of two metals with different metals expansion rates. * When such metals are heated, the metal with a higher expansion rate bends over the one with a low expansion rates as shown in the diagram below.   C:\Users\hp\Documents\Scanned Documents\bimetallic strip.jpeg  Iron  Copper  Iron  Copper  Before heating  After heating   * Bimetallic strips are used in thermostats. * A thermostat is a device that automatically switches off and on electrical appliances. * **Devices with bimetallic strip** * Car indicators. * Electric kettles * Flat iron, air conditioners   **Activity**   * **Finding out the effects of heat on gases**   **Requirements**   * A plastic bottle * A balloon * A saucepan with very hot water.   **Procedure**   1. Get a saucepan and put in hot water 2. Get a plastic bottle and fix a balloon on top of it tightly. 3. Place the bottle with a balloon in the hot water.   **Questions**  1. What happens to the balloon after sometime?  2.What does it show about heated air in the bottle  **Lesson nine**  **Effects of expansion and contraction**  **Read and spell**   |  | | --- | | ***Weather, Cold, Hot, Frozen*** |   **Effects of expansion and contraction**   * Weakens some objects * Makes objects break * Loss of shape to some objects * Causes crack on some objects   **Prevention of effects of expansion and contraction**   * Gaps are left between railway lines to leave room for      * Electric wires and telephone wire are loosely fixed on poles to leave/give.   C:\Users\hp\Documents\Scanned Documents\electricity.jpeg  **Sagging wires**   * Gaps are left on soda/bottled drinks to allow expansion of liquid inside when frozen.     **Lesson 10**  **Read and spell**   |  | | --- | | ***Condensation, freezing, melting, deposition, sublimation, evaporation*** |   **Changes of states of matter**   * A change of state is caused due to change in temperature. * Changes that take place in state of matter are said to be physical changes. * **Physical changes** are those in which no new substance is formed or can easily be taken back.   **Summary of changes of states of matter**  Gases  A  B  Sublimation  Liquids  Solids  C  D  Deposition  **Key**   1. Condensation 2. Evaporation 3. Freezing 4. Melting   **Changes of state of mater**  **1.melting** is the process by which a solid changes to a liquid  **2. Freezing** is the process by which a liquid changes to a sold.  **3. Condensation** is the process by which gases change to a liquid.  **4. Evapouration** is the process by which liquid state change to gaseous state.  **5. Sublimation** is the process by which solid state change directly to gaseous state.  **6. Deposition** is the process by which gaseous state change to solid state.  **Activity**  1. Which state of matter has the highest cohesive force?  2. Use the diagram below to answer question that follow  1  2  Sublimation  A  B  C  Name the state of matter marked with letter A  3. What form of energy enables processes 1, 2 to take place?  4. State any other two forms of energy apart from heat energy.  **Lesson 11**  **Conduction and insulators**  **Read and spell**   |  | | --- | | Silver, Copper, Wool, silver, aluminium |  * Heat transfer is the movement of heat from the source   **Conductors**   * These are materials or substances that allow heat to pass through them.   **Examples**   1. Silver 2. Steel 3. Iron 4. Copper 5. Aluminum 6. Lead   **Insulators**   * These are materials that do not allow heat to pass through them   **Examples**   1. Plastic 2. Rubber 3. Dry wood 4. Wool 5. Paper   **Methods of heat transfer**  **a) Conduction**  The process by which heat travels through solids.  **Experiment on heat transfer in solids**.  Candle wax with pins was placed at different points on a nail as shown below.     * Heat from the candle reaches wax 1 first by conduction.   **b) Convection**   * Convection is the process by which heat travels through liquids and gases.   **Heat transfer in gases and liquids**     * When boiling water, heat passes through the pan by conduction * Water gets heat throughout by convection. * Water at the bottom of the saucepan warms first. * Warm/hot water gains kinetic energy and moves on top of the cold one. * Someone near a charcoal stove receive heat by radiation.   **c) Radiation**   * Radiation is the process by which heat travels through a vacuum or space. * We get heat from the sun by radiation. * Heat from a fire source reaches someone near it by radiation.   **Activity 1: (conduction)**  **Demonstrating heat transfer**  **Requirements**   1. Nail 2. Candle 3. Match box   **Procedure**   1. Using the matchbox, light the candle. 2. Place one of the nails in the burning flame of the candle for some time. 3. Hold the other end of nail with your fingers. 4. What do you feel in your fingers after some time? 5. What does the activity show about heat? 6. What state of matter is the nail?   **Activity 2 (convection)**  **Requirements**.   1. Stones 2. Fuel (charcoal, paraffin ,firewood) 3. Water 4. Saucepan   **Procedure**   1. Light your stove 2. Place a saucepan with water on it. 3. Observe the water in saucepan after some time.   **Question**  1. What is observed in the water after sometime?  2. What do the water bubbles represent?  3. By what process does heat from the fire bottom circulate in the whole water?  **Lesson 12**  **Importance of conduction**  **Read and spell**   |  | | --- | | **Roast , Convection, radiation, radiant** |   **Importance of conduction**   * Helps us to cook * Enables us roast meat/cassava * Enables us to iron clothes   **Importance of convection**   * Helps move out smoke from the kitchen through the chimneys * Helps in formation of rainfall * Water in a kettle/drum/saucepan boils by convection * Enables fresh air enter the house. * Helps drive out bad smell through the vent in a VIP latrine.   **Importance of radiation**.   * Radiant heat from the sun dries clothes * Heat from the sun helps to keep us warm * Heat from the sun helps in heating water causing evaporation helpful in rain formation. * Radiant heat is used to preserve harvested crops like legumes, cereals, cassava, matooke, sweet potatoes.   **Activity.(diagrams**)  1. In the space below, draw a charcoal stove showing all holes in it.  2.What is the role of the following;   1. Holes on top? 2. Holes at the bottom?   3. Why are the handles of iron boxes, frying pans made of wood?  4. Apart from wood, state two other insulators.  5. Why are ventilators important in a living house?  **Lesson 13**  **A thermo flask/vacuum**  **Read and spell**   |  | | --- | | ***Conduction, Thermos, Flask, Vacuum seal*** |   **A thermo flask/vacuum**   * Flask is an item used to keep hot thing hot and cold things cold. * A flask keeps hot things hot and cold things cold by preventing heat loss or heat gain.   **Parts of a thermos flask**    **Functions of the parts**   * 1. **Cork** prevents heat loss or gain by conduction   2. **Vacuum** prevents heat loss or gain by conduction or convection   3. **Double silvered wall** reflects heat preventing heat gain or loss by radiation.   4. **Vacuum seal**: it isseal of the vacuum during manucture.   5. **Cup** for taking the fluid inside.   **Activity**  1. Why is a vacuum flask called so?  2. Give the importance of thermos flasks at home.  3.State the importance of a cork  4. How is a vacuum able to prevent heat loss or gain by conduction or convection?  5. In which way is a cork adopted to its function on a flask?  **Lesson 14**  **Heat and temperature**  **Read and spell**   |  | | --- | | ***Temperature, Degrees, Celsius, Fahrenheit*** |  1. **Heat** is the form of energy which causes the temperature to rise. 2. **Temperature** is the hotness or coldness of an object.  * Temperature is measured using an instrument called a **thermometer** * Temperature is measured in units called **degrees**. * **Thermometric scale** * Celsius or centigrade scale (C) * Fahrenheit scale (F) * The Celsius scale runs from O0C to 1000C. * It has the freezing point at 0C and boiling point at 100° C. * The Fahrenheit scale runs from 320F to 2120F. * The freezing point is at 320F and the boiling point at 2120F. * **Thermometric liquids**   1.Mercury  2.Alcohol  **Activity.**  1. State any three reasons why mercury is preferably used in thermometers.  2. Identify two advantages of using alcohol over mercury.  3. Why are vacuum flasks not commonly used in rural areas?  4. How do the following parts prevent heat loss or gain in flasks?   1. Cork 2. Vacuum 3. Double silvered walls   **Lesson 15**  **Types of thermometers**  **Read and spell**  ***Clinical, Maximum, Mercury, Kink***  **Types of thermometers.**   * Clinical thermometers * The six’s maximum and minimum thermometer. * The wall thermometer * The ordinary scientific thermometer.   **The clinical thermometer**.   * The clinical thermometer is used to measure the human body temperature. * It’s marked from 320C to 420C. * The normal human body temperature on a Celsius scale is 370C and 980F on the Fahrenheit scale. * It’s usually placed in the **armpit, under the tongue** in the mouth, in the **vagina** and in the **anus**.   **Diagram of a clinical thermometer**.  C:\Users\hp\Desktop\PICTURES by ken\thermometer.jpg  **Activity.**  1. List down any three places where a clinical thermometer can be placed to take accurate temperature.  2. Why is a clinical thermometer marked from 320C to 420C?  3. Identify the liquids used in a clinical thermometer.  4.give the function of the following parts of a clinical thermometer   1. Bulb 2. Kink/constriction.  * How is a clinical thermometer different from a six’s thermometer in terms of function?   **Lesson 16**  **Six’s minimum and maximum thermometer**  **Read and spell**   |  | | --- | | ***Minimum, Maximum, weather, alcohol*** |   **Six’s minimum and maximum thermometer**   * The six’s thermometer measures the highest and the lowest temperatures of the day. * The thermometer uses both mercury and alcohol. * It is used in weather stations and by farmers.     **Lesson 17**  **Changing degrees Celsius to degrees Fahrenheit**  **Read and spell**   |  | | --- | | ***Convert, Centigrade, Fahrenheit, Celsius*** |   **Changing degrees Celsius to degrees Fahrenheit**  **Formula (9/5C) + 32 =0F**.  **Example I**  Change 750C to Fahrenheit scale  **Solution**    **Example II**  Convert 20° c to Fahrenheit.  **Solution**    **Activity.**  1.convert the following degrees  Celsius to degrees Fahrenheit.   1. 400C 2. 1000C 3. 00C 4. 800C 5. 100C 6. 500C   **Lesson 18**  **Converting from Fahrenheit scale to Celsius scale**  **Formula; 5/9(0F-32) =0C**.  **Examples**  1. Convert 212f to Celsius.    2. Change 50oF to Celsius    3.change 104oF to degrees Celsius    **Activity.**  1. Change the following degrees Fahrenheit to degrees Celsius.   1. 140oF 2. 122oF 3. 133oF 4. 86oF 5. 680F |
| **Science in human occupation and activities** | **Growing crops** | **Lesson 1**  **Classification of tubers**  **Read and spell**   |  | | --- | | ***Tubers, Underground, Root tubers, Stem tubers*** |   **Classification of tubers**   * **Tuber crops** * These are crops that store their food in swollen underground roots or stems. * **Classes of tuber crops** * Root tubers * Stem tubers  1. **Root tubers**  * These are crops that store their food in the swollen underground roots. * **Examples of root tubers** * Cassava * Sweet potatoes * Carrots * Beat root * Turnips  1. **Stem tubers**  * These are crops that store their food in swollen underground stems. * **Example of stem tubers** * Irish potatoes * Yams   **Activity**  1. Name the crop tuber drawn below.  C:\Users\hp\Documents\Scanned Documents\electricity.jpeg  2. What food value do we get from eating carrots?  3.which part of the following crops do we eat,  a) cassava  b) Irish potato.  4. Give a reason why sugarcanes are not regarded as tuber crops.  **Lesson 2**  **Growing and caring for tuber crops**  **Read and spell**   |  | | --- | | ***Planting materials, Propagation, Veins, Pruning,***  ***Harvesting*** |  * **Plating materials for common tuber crops** * Stem cuttings * Veins/runner stems * Tubers with buds * Carrot seeds * Beet roots * Turnip seeds * **Care of tuber crops** * **Watering:** water helps during photosynthesis. * **Pruning:** This isthe removal of excess branches from the plant. * **Mauling:** Adding manure/fertilizers for better crop yields. * **Mulching:** the covering of top soil with dry plant materials to keep moisture in the soil. * **Spraying:** helps to kill pests. * **Thinning:** This isremoving excess plants or unproductive plants from the garden. * **Weeding:** This is the removal of unwanted plants. * Reduces competition for nutrients.   **Activity**  1.How are the following tuber crops propagated,   1. Irish potatoes 2. Turnips   2. How is propagation of beet root similar to that of beans?  3.state the importance of each of following practices below,   1. Mulching 2. Pruning 3. Weeding   4. Mention four ways of caring for a crop.  5. How does early weeding improve crop yield?  Answer; by reducing competition for nutrient and space.  **Lesson 3**  **Common pests of tuber crops**  **Read and spell**   |  | | --- | | ***Pests, Spraying, Dusting, Gnaw*** |   **Tuber crop pests**   * These are organisms that destroy crops.   **Examples of tuber pests**   * Moles * Army worms * Nematodes * Rats * Caterpillars * Monkeys * Squirrels * White fly * Sweet potato weevils.   **Characteristic of common tuber pests.**   * Some have strong claws for digging into the soil. * Some have well developed incisor teeth for cutting tubers. * Some stay in tunnels * Some have fingers in their limb for uprooting crops.   **Controlling tuber crop pests.**   * By use of scare crows * Using traps to catch. * Fencing gardens. * Physical guarding. * Spraying and dusting.   **Activity**  1. Name any two insect tuber pests.  2. What are crop pests?  3. State two dangers of pests to crops.  4. Mention two common characteristics of tuber crop pests.  5. State two ways of controlling tuber crop pests.  **Lesson 4**  **Diseases of tuber crops**  **Read and spell**   |  | | --- | | ***Blight, wilt, pesticides, unhealthy*** |  1. **cassava mosaic**  * Cassava mosaic attacks. * Caused by a virus and spread by white fly.  1. **Bacteria blight**  * Attacks sweet potatoes, Irish potatoes and yam.  1. **Wilt disease**  * Affects the leaves of tuber crops. * **Effects of diseases on tuber crops** * They lower the quantity and quality of yields * They damage roots, leaves and fruits. * Make plants unhealthy. * They retard or slow plant growth. * **Controlling tuber crop disease** * Uprooting and burning the infected crops. * Spraying and dusting with pesticide. * Early planting * Using healthy planting materials   **Activity**  1. Identify the disease of tuber crop spread by the white fly.  2. Mention any two diseases of tuber crops.  3.State two method of controlling tuber crop diseases  4. Give one method of tuber crop disease control which need  5. State two effects of diseases to tuber crops.  **Lesson 5**  **Harvesting ,processing and storage of tuber crops**  **Read and spell the words**   |  | | --- | | ***Digging, Pealing, Silos, Granary, Rat guards*** |   **Harvesting ,processing and storage of tuber crops**  **Harvesting**   * The process of removing ready tuber crops from the garden.   **Ways of harvesting**   * Uprooting them using hands * Digging out using a hoe * Digging out using small sticks   **Processing tuber crops**.   * Peeling using knives * Slicing in small pieces * Sun drying them for storage.   **Storage of tuber crops**   * Storing in granaries * Storing in silos * refrigerating   **Importance of storing tuber crops.**   * Prevents wastage. * For future use. * For planting in the next season.   **Activity**  1. Mention any two ways of harvesting tuber crops.  2.how are the following tuber crops processed,   1. Cassava 2. Irish potato   3. State two ways of preparing tuber crops.  4. Give two reasons for storing tuber crops.  5. Identify one way of storing tuber crops apart from the granary.  **Lesson 6**  **Science oriented clubs in schools**  **Read and spell**   |  | | --- | | ***Knowledge, skills, participate, scientific*** |  * **Aims of science oriented clubs** * Make science lessons interesting * Enable pupils get science skills * Teach members new farming methods * Give opportunity to learners to meet and share scientific knowledge * **Example of science oriented clubs**. * Young farmers club * Wildlife club * Science and technology club * **The young farmers club** * An organization of young boy and girls in or out of school who participate in farming activities. * **Aims of young farmers club**. * Teach how to grow and care for crops. * Grow crops and sell to get money * Teach new methods of farming * Give youth chance to meet and share ideas. * To create positive attitude towards farming. * To produce futu7re commercial farmers.   **Activity.**  1. Name any two science based clubs in school.  2. Mention two aims of any science oriented club at school.  3. Name any three crops that can be grown by young farmers at school. |
| **WORLD OF LIVING THINGS** | **Bacteria and fungi** | **Lesson 1**  **Bacteria**  **Read and spell the words**   |  | | --- | | ***Bacterial, Bacterium, Binary fission, Decompose, Microscopic*** |  * **Bacteria** * Bacteria are single celled organisms that reproduce by binary fission or cell division.      * **Places where bacteria are found** * Pit latrine * Rubbish pits * In the soil * Contaminated water * Decaying matter * In air * In dirty animal bodies. * **Reproduction in bacteria.** * Bacteria reproduce by a process of binary fission. * In binary fission, one cell divides into two bacterial cells   **Illustration.**  **C:\Users\hp\Documents\Scanned Documents\cell division.jpeg**   * **Characteristics of bacteria** * Bacteria are singe celled * Bacteria reproduce by cell division. * They are microscopic organisms (only seen with a microscope). * They respire.   **Activity**  1. How do bacteria multiply?  2. Why are bacteria regarded as microscopic organisms?  3. List down any two characteristics of bacteria.  Name any four places where bacteria can be found.  4. State one condition needed by bacteria to produce.  **Lesson 2**  **Nature of bacteria**  **Listen and spell**   |  | | --- | | ***Harmful, harmless, septic, spirilla, cocci, bacilli*** |  * **Nature of bacteria**  1. Harmful bacteria 2. Useful bacteria/harmless bacteria.  * **Harmful bacteria** * They cause diseases to people, animals and plants. * They make milk go bad. * They make wound and cuts become septic. * They make food exposed to it go bad. * **Types of bacteria** * The bacteria is grouped according to their shapes  1. Cocci or coccus bacteria. 2. Bacilli or bacillus. 3. Spirilla and spirochete 4. Vibro bacteria.   **Activity**  1. Mention any two dangers of bacteria.  2. Apart from cocci, give two other types of harmful bacteria.  3. Mention two diseases caused by bacteria to man.  4. Identify the bacterium type drawn below.  **Lesson 3**  **Harmful and useful bacteria**  **Read and spell the words**   |  | | --- | | **Cocci, Staphylococcus, Bacilli, Spirilla** |   **Harmful bacteria**   * **Cocci or coccus** * These are spherical shaped in shape.   **Example**   1. Staphylococcus which causes boils. 2. Streptococcus which causes sore throat. 3. Pneumonococcus which causes pneumonia.  * **Bacilli/bacillus** * These are rod shaped bacteria.   **Example**   1. Bacillus anthrasis which cause anthrax. 2. Salmonella typhi which causes typhoid.  * **Spirilla (spirochetes)** * These are spiral shaped.   **Example**   1. Treponema pallidum which causes syphilis  * **Vibrio** * These are comma shaped.   **Example**   1. Vibrio cholerae which causes cholera.  * **Useful/harmless bacteria** * These are bacteria that are useful in our daily lives. * Break volumes of faeces in latrines, tanks and sewage. systems. * Help in decaying and rotting. * Help in making of cheese. * They are found in root nodules of legumes. * Help in making vitamin **B12** and **K.** * Help in process of digestion of food.   **Activity.**  1. Name the bacteria found in the root nodules of legumes.  2. Mention two ways in which some bacteria are useful to man.  3. Identify the type of vitamin got by the help of bacteria.  **Lesson 4**  **Common bacterial diseases**  **Read and spell**   |  | | --- | | ***Cleanliness, immunization, antibiotics, antiseptic, disinfectants*** |   **Common bacterial diseases**   1. Tuberculosis 2. Typhoid 3. Cholera 2. Tetanus 5. Pneumonia 6. Boils   7. Sore throat  **Control of bacterial diseases**   * Keeping cleanliness * Good feeding/eating a balanced diet. * Proper handling of food. * **Prevention of bacterial diseases**. * Through immunization of children. * Boiling water for drinking. * Sterilizing medical equipment. * **Treatment.** * Using antibiotics. * Using antiseptics. * **Antibiotics** * These are substances used to kill germs in our bodies. * **Antiseptics** * These are substances used to kill germs on wounds and cuts. * **Disinfectants** * These are chemicals used to kill germs on surfaces e.g. toilet and floors.   **Activity.**  1. List down any three bacterial diseases that affect man.  2. Give two examples of disinfectants used at home.  3. State two ways of controlling the spread of bacterial diseases.  4. Sate two ways of preventing the spread of bacterial diseases.  **Lesson 5**  **Fungi**  **Read and spell**   |  | | --- | | ***Fungi, Spores, Budding, Saprophyte, Parasite*** |   **Fungi**   * These are multicellular organisms that mostly reproduce by spores. * **Places where fungi are found** * Rotting or decaying matter. * In the soil * **Examples of fungi** * Mushrooms * Puffballs * Toadstools * Moulds * Yeast * Bracket fungus * **Reproduction in fungi** * Most fungi reproduce by means of spores except yeast which reproduces by means of budding. * **Breeding and feeding of fungi** * Fungi breed in places that are moist, warm and dark. * Fungi feed saprophytically as saprophytes and others parasitically as parasites.   **Note**   * Saprophytes are organisms that feed by absorbing dead decaying matter from rotting matter. * Parasites are organisms that live and feed on another without killing but causing harm.   **Activity.**  1. Apart from mushrooms, give three other examples of fungi.  2.how do the following fungi reproduce,   1. Mushroom 2. Yeast   3. Identify the fungi used in the baking of bread.  4. How do mushroom reproduce?  **Lesson 6**  **Harmless/useful fungi**  **Listen and spell**   |  | | --- | | ***Penicillium, mould, ring worm, fermentation, baking*** |  * **Harmless/useful fungi** * Some fungi are eaten as food e.g. mushroom * Fungi decays and help in humus formation. * Some are used in making medicine e.g. penicillin from Penicillium mould. * Help in purifying sewage and fermenting. * Yeast helps in flavoring of cheese. * Yeast is used for baking. * Yeast is used in fermentation of alcohol. * **Harmful fungi** * Some are poisonous to man e.g. toadstool. * Some cause diseases e.g. ringworms, eczema. * Fungi make food go bad. * Fungi caused diseases to our plants. * **Parts of a mushroom**       **Functions of the parts.**   * **Cap -** Itholds and protects the gills. * **Gills** – It produces and store spore. * **Stalk** – It holds the cap in upright position. * **Ring** - It holds the cap when it is still young. * **Hyphae/ Mycelium -** it absorb food from the decaying matter in soil.   **Activity**  1. Name the mould used for making medicine.  2. What food value do we get from eating mushrooms?  3. State two dangers of fungi.  4. What name is given the body of the hyphae?  **Lesson 7**  **Fungal diseases**  **Read and spell**   |  | | --- | | ***Antifungal, athletes foot, Eczema, candidiasis*** |   **Fungal disease**   1. Ringworms 2. Eczema 3. Athletes foot 4. Candidiasis.   **Prevention and control.**   * Proper personal hygiene. * Use of disinfectant to clean toilet. * Avoid sharing clothes, towels and knickers. * Keeping toes dry and clean. * Proper hygiene maintenance. * Proper keeping of leftover food.   **Facts about fungi and bacteria.**   * Fungi reproduce by spores except yeast which reproduces by budding. * Fungi are multicellular * Fungi do not have roots, leaves and stems. * Bacteria reproduce by binary fission. * Bacteria are single celled organisms. * Bacteria cannot be seen by naked eyes.   **Comparing fungi and bacteria.**  **Similarities.**   * Both are useful and harmful. * Both cause diseases. * They both cause diseases that are cured and treatable. * They both feed and reproduce.   **Differences between fungi and bacteria**   |  |  | | --- | --- | | **bacteria** | **fungi** | | * Reproduce by cell division. | Reproduce by spores. | | * Bacteria are single celled. | Fungi are multicellular. | | * Bacteria causes immunisable diseases | Causes diseases that are not immunisable | | * No bacteria is used as food | Some fungi like mushrooms can be eaten. | | * Bacteria are microscopic | Fungi are big and can be seen. |   **Activity**  1. Give one example of poisonous fungi.  2. State two ways of controlling fungal diseases at home.  3. How is reproduction of a toadstool different from that of a fern?  4. State two differences and two similarities of fungi and bacteria.   1. Similarities 2. Differences   5. What are saprophytes? |

TERM III

1. Types of changes – Biological, Physical and Chemical changes
2. Keeping Goats, Sheep and Pigs
3. Food and Nutrition
4. Primary Health Care (PHC)

**WEEK 2**

**LESSON 1**

**TYPE OF CHANGES**

**Environment:** These are people and their surroundings.

**Types of changes in our environment:**

* **Physical changes.**
* **Chemical changes.**
* **Biological changes.**
* **Atmospheric changes**

**Biological changes:** Are changes that take place in our body cells and affect the growth.

**Examples of biological changes**

**In plants:**

* Growth
* Germination
* Flowering
* Fruiting

**In animals:**

* Growth
* Moulting
* fertilization

**Characteristics of biological changes**

* New organisms come into being e.g. young ones of animals, seedlings in plants.
* Young ones grow old.
* Increase in number of off springs
* Increase in harvest / yields.

**Chemical changes**

These are changes which affect both the physical and chemical composition of a substance.

**Characteristics of chemical changes**

* A new substance is formed
* They are irreversible
* Heat or light is sometimes given off or absorbed

**Examples of chemical changes**

* Burning
* Rusting
* Respiration
* Digestion
* Photosynthesis

**Advantages of chemical changes**

* Chemical changes like burning produce heat
* The heat produced is used to cook
* Production of energy during respiration

**Disadvantages of chemical changes**

* Rusting results into wearing out of iron materials, steel equipment
* Bolts become difficult to open or unscrew.
* Keys fail to fit in the padlock after rusting
* Water and air become poisonous to human life.
* Pollutes the environment i.e smoke.

**Exercise:**

1. Briefly explain the term environment.
2. Give any two examples of chemical changes.
3. Identify two types of changes.

**Lesson 2:**

**Physical changes**

Physical changes are changes which affect the physical but not the chemical composition of a substance.

**Examples of physical changes**

* Evaporation
* Condensation
* Freezing
* Melting
* Sublimation

**Characteristics of physical changes**

* No new substance is formed
* Are reversible

**Advantages of physical changes**

* Formation of rainfall
* Formation of ice cubes
* Forms water for drinking

**Disadvantages of physical changes**

* Results into soil erosion
* Forms gulleys
* Causes loss of soil fertility

**Weather changes in the atmosphere (atmospheric changes)**

* Humidity
* Cloudy
* Rainy
* Sunny

**Natural and people made changes**

Natural changes: Means changes that occur by themselves e.g. wind movement; changes in climate e.g. dry season, wet season, and rainfall formation

**Man made Changes:** Are changes that are caused by man.

**Examples of man made changes**

* Tree planting
* Deforestation (Tree cutting)
* Bush burning
* Construction of houses
* Road construction.

**Exercise:**

1. Give one example of physical changes.
2. Mention two examples of atmospheric changes.
3. State two examples of man made changes.

**Lesson 3**

**Effects of changes in the environment to plants and people**

1. **Mulching**

**Importance:**

* + Control the growth of weeds
  + Preserves moisture in the soil
  + Improves soil fertility
  + To control soil erosion.

1. **Tree cutting**

**Effect:**

* Destroys the environment
* Exposes soil to agents of soil erosion
* Reduces the amount of rainfall

1. **Bush burning**

**Effects**

* Causes Soil erosion.
* Leads to loss of soil fertility
* Exposes soil to agents of soil erosion

1. **Building houses**

**Importance:**

* Houses protect people and their property from bad weather e.g. rain fall, coldness, sunshine.
* Houses also protect people from thieves.
* Protects people from wild animals.

1. **Effect of road construction**
   * Road construction helps to improve transport
   * Destruction of vegetation
   * Poor roads cause / lead to accidents and damage of vehicles
2. **Pollution**

* Pollution is the contamination of the environment.
* Pollution is when toxic substastances are released into the environment.
* Pollutants are the materials which contaminate the environment.

**Exercise:**

1. State the meaning of mulching.
2. Give one advantage of mulching.
3. Suggest one effect of bush burning to the environment.

**Lesson 4**

**Examples of pollutants**

* Plastics
* Polythene papers
* Oil
* Scraps
* Chemical
* Fumes from industries
* Fumes from cars
* Bush burning

**Types of pollution**

* Air pollution is when toxic substances are released into the air
* Water pollution is when toxic substances are released into the water
* Soil pollution is when toxic substances are released into the soil.
* Sound pollution is when there is too much noise in the area

**General effects of pollution to the environment**

* Pollution lowers the quality of the environment
* Pollution leads to respiratory diseases
* Pollution leads to environmental degradation
* Pollution leads to mental retardation.
* Pollution leads to death of organisms in the soil
* Pollution leads to death of aquatic animals.
* Pollution destroys the rain cycle
* It leads to soil exhaustion

**Exercise:**

1. Give the meaning of term pollution.
2. Mention the four types of pollution.
3. State any two effects of pollution to man.
4. Briefly explain the term air pollution.

**LESSON 5**

**Keeping goats, sheep and pigs**

**Common terms used:**

**A nanny goat:** Is a mature female goat.

**A Billy goat:** Is a mature male goat.

**A kid:** Is any young goat.

**Kidding:** Is the act of giving birth in goats.

**Browsing:** Feeding of a goat on the soft parts of a plant.

**Tethering:** Is the system of grazing where an animal is tied on a peg (stake) on a rope.

**Heat period:** Is a period when a nanny goat is ready to be mated.

**Weaning:** Is the introduction of kids to other foods in addition to milk from the udder.

**kidding:** The act of giving birth to kids.

**Gestation period:** The period between fertilization and birth in mammals (animals).

**Lactation:** Is the milking period in animals.

**Why farmers keep goats and sheep**

1. For milk production.

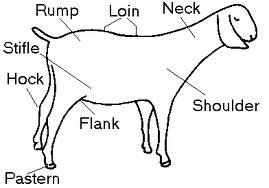
2. For meat production.

3. For source of income (for sale and get money)

4. The skins from goats are used to make leather products like shoes, straps for watches, belts, drum tops, bags and costumes for dancing among others.

5. The dropping from goats is used to make farmyard manure.

6. for giving dowry / bride price.

**External parts of a goat**

**Exercise:**

1. Briefly explain the following terms

* Nanny goat
* Billy goat
* Browsing
* Heat period

1. Why do farmers keep goats?

**Lesson 6**

**Breeds of goats**

The two main groups of breeds of goats are:-

* Local breeds (indigenous or native breed)
* Exotic breeds

**Examples of local breeds of goats**

* Mubende goats
* Golla goats
* Turkana
* Sambaru goats
* Anglo– Nubian
* The Somali goat East African small goats

**Advantages of local breeds**

* Local breeds are more resistant to tropical diseases.
* Local breeds can with stand harsh weather conditions.
* Local breeds are easy to manage as they feed by browsing.

**Disadvantages**

* They take long to mature
* They provide hard meat.
* They produce less meat and milk.

**Exotic breeds of goats**

Exotic breeds are kind of breeds imported into Uganda from other countries.

**Examples of exotic breed of goats**

* Toggenburg
* Angora goats
* Saanen goats
* Boar goats

**Meat breeds**

* Boar goat
* Galla goats
* Mubende
* The Somali goats.

**Milk producing breeds**

* Saanen goats
* Toggenburg

**Wool breeds**

Angora goats (mohair)

**Cross breeds**

Somali goats

**Advantages of keeping Exotic breeds of goats.**

* They grow very fast.
* They fetch a lot of money when sold.
* Produce tender meat.
* They produce a lot of meat and milk.

**Disadvantages of keeping exotic breeds.**

* They are expensive to keep.
* They are not resistant to worms and diseases.
* They cannot withstand harsh weather.
* They need special feeds to produce better products.

**Exercise:**

1. What is a breed?
2. Mention two main breeds of goats in Uganda.
3. State any two signs of heat period in goats.
4. What is lactation period?

**Lesson 7**

**Breeding in goats**

A female goat is mated for the first time at the age of 14 – 18 months.

**Gestation period of a goat.**

The gestation period of a nanny goat is 5 months (150 days)

**Heat period in goats**

Heat period is the time when the nanny goat is ready to be mated by a Billy goat.

**Signs of a nanny goat on heat**

* Becomes restless (unsettled)
* The vulva swells and becomes reddish.
* Whitish discharge from the vulva.
* Mounting other goats.
* Standing still when mounted.
* Loss of appetite.

**CARING FOR A PREGNANT GOAT**

* A pregnant goat needs special care.
* Concentrates should be given one month before kidding.
* These feeds have a high carbohydrates and protein content.
* Mineral licks should be given.
* Pregnant goats should be separated from others and kept in a clean place.
* Weaning should be done at least 3 - 4 months after kidding.

**Signs of a good milk breed**

* It has a large under and teats.
* Have large milk veins which appear below the belly.
* Have strong and well placed hind legs.
* Have strong back muscles.

**Routine jobs in goat management**

**What are routine jobs?**

Routine jobs are any good management practices carried out on any livestock farm.

**Examples of routine jobs on a livestock farm.**

i. Castration v. Drenching ix. Culling

ii. Disbudding vi. Spraying or dusting

iii. Dipping vii. Dosing

iv. Hoof trimming viii. Feeding

**Exercise:**

1. What are routine jobs?
2. Mention any three routine jobs in goat management.
3. What is castration?
4. Give any two methods of castration.

**WEEK 3**

**LESSON 1**

**Castration**

* Castration is the removal or disabling of testes from a young male animal.
* The instrument used for castration is called a burdizzo

**The diagram of a burdizzo:**



**Methods of castration**

i. Closed castration (using a burdizzo castrator or elastrator)

ii. Open castration. (Scaped operation) – The knife can be used to cut the scrotum / scalped used by veterinarians.

**Advantages of castration.**

i. A castrated animal grows fatter and faster.

ii. Castration prevents in-breeding.

iii. Prevents the spread of venereal diseases (VD)

iv. Helps to make the male animal calm (docile) and easy to handle (tame).

v. Castration helps to improve on the quality of meat.

**Disadvantages of castration**

i. Animals feel a lot of pain.

ii. The wound may become septic.

iii. The cut opens way to germs.

iv. It is expensive to buy a burdizzo or hire a qualified person to carryout castration.

**Dehorning**

Dehorning is the removal of horn buds to prevent the growth of horns.

**Advantages of disbudding**

i. Creates space on the farm.

ii. Helps in identification of ones animals.

iii. Prevents livestock animals from injuring others.

a) **Hoof trimming:** Is the cutting short of over grown hooves. It is normally done in sheep. A trimming knife or hoof trimming shears is used.

**Importance:** To reduce the chances of infections and injuries.

b) **Dipping:** Is the bathing of livestock in acaricides in a dip tank to kill ecto-parasites.

**Importance:** Helps to kill ecto-parasites e.g ticks.

c) **Drenching:** Is the giving of liquid medicine to the livestock through the mouth.

Drenching is done using a drenching gun or bottle.

d) **Spraying:** Is when a fumigator or knap sack sprayer is used to spray insecticides / pesticides to kill ecto parasites.

**Importance:** Prevents tick borne diseases like Red water, Heart water, etc.

e) **Dusting:** Is the application of powdered medicine on the body of an animal to kill ecto-parasites.

f) **Dosing:** Is the giving of solid medicine e.g Tablets using a dosing gun to kill endo-parasites like worms.

g) **Feeding:** Is done using supplements, mineral licks, concentrates and fodder.

**Exercise:**

1. Briefly explain castration.
2. Identify one method of castration.
3. State one advantage of dehorning.

**Lesson2.**

**GRAZING GOATS**

These are many methods of grazing animal, namely:

* Rotational grazing
* **Tethering**
* Strip grazing
* Paddock grazing
* Free range grazing (herding)

**Tethering:** Is when an animals is tied with a rope onto a peg to graze around.

 **Diagram of a tethering goat**

**Advantages of tethering**

i) Ensure efficient use of pasture.

ii) Enables the growth of pasture in other areas.

iii) Controls soil erosion as over grazing is avoided.

iv) Controls spread of parasites and diseases.

v) Allows pasture conservation.

**Disadvantages of tethering grazing**

i) Animals cannot get enough food (pasture).

ii) It is tiresome to keep on changing the animals.

iii) The rope can cause injuries to the animal.

**Note:**

Browsing is the feeding of a goat on soft parts of a plant.

Examples of the soft parts:

* Leaves
* Flowers
* Buds

**Free range grazing (herding)**

Is when the animals are left to roam and gaze freely?

**Disadvantages:**

i) Animals can easily get lost and stolen by thieves.

ii) Animals can stray and spoil crops.

iii) Animal diseases are easily spread.

**Zero grazing (stall feeding)**

* This is the keeping of animals in a room while providing food to them.
* Zero grazing system needs more attention than tethering.
* This method is suitable for small scale farmers and in areas where most land is used for crop growing.

**The shelter for goats**



**Exercise:**

1. What is grazing?
2. Mention any two methods of grazing goats.
3. Give the meaning of tethering grazing.
4. State one disadvantage of free range grazing.

**Lesson 4**

**Sheep rearing**

**terms used in sheep rearing**

a) Ram: a mature male sheep.

b) Ewe: a mature female sheep.

c) Lamb: a young one of a sheep.

d) Lambing: Is the act of giving birth in sheep.

e) Mutton: Is the meat of sheep.

f) Shearing: Is the removal of over grown wool from the sheep.

g) Docking: Cutting short of lamb’s tail.

h) Gestation period: Period of pregnancy in animals OR

Gestation period is a period between conception and birth.

**Importance of docking sheep**

* To allow easy mating
* To avoid accumulation of dung which can be a breeding area for germs.

**Why do farmers keep (rear) sheep**

i) For mutton production.

ii) For wool (mohair) production mostly in cold climate areas.

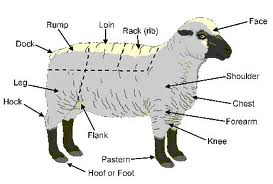
iii) For sale (income generation)

**A part from wool and mutton, give any other products got from sheep.**

i) The skin used to make feather, product like belts, bags, shoes, e.t.c

ii) Horns and hooves used for making office glue, buttons or decorations.

1. For cultural purposes e.g sacrifice, rituals, pay dowry or bride wealth.

**External parts of a sheep**

**Groups of breeds of sheep kept in uganda**

**local breeds (indigenous**)

i) East African breed / Blacks headed Persian.

ii) The Somali

iii) The Masai

**Exercise:**

1. Explain the meaning of the following terms

* Lamb
* Mutton
* Shearing
* Docking

1. Give the importance of docking a female sheep.
2. Why do farmers keep sheep?

**Lesson 4**

**Exotic breeds of sheep**

i) Hampshire down sheep.

ii) Dorper sheep.

iii) Romney marsh

iv) Corriedale

v) Merino

vi) Ramboulet

**Mutton breeds of sheep.**

All local breeds are reared for mutton e.g

i) Black headed Persian.

ii) The Somali

iii) The masai e.t.c

**Exotic meat breeds kept for mutton**

i) Hampshire

ii) Dorper

iii) Chirot

iv) Sufflock

v) Dorset

**Dual purpose sheep**

Dual purpose sheep are the sheep kept for production of mutton and wool e.g Romney marsh / corriedate.

**Wool breeds**

i) Marino sheep (fine wool)

ii) Romney marsh (long wool)

**Breeding in sheep**

A ewe should be served at the age of 16 -18 months. ( 1 year 4 months – 1 year 6 months)

The gestation period of sheep is 5 months (150 days).

**Weaning.**

Weaning is done by giving semi solid food to young ones besides milk from their mothers.

Weaning is done between 3 – 4 weeks.

Weaning sheep should be sheared at 8 months.

A mature sheep should be sheared once a year.

**Identify the factors considered when choosing a good ewe / ram.**

i) Calmness / docile appearance / easy to handle.

ii) The udder and teats should be well developed.

iii) Should have good motherly and lambing ability.

iv) Should be free from diseases.

1. Should be free from hereditary effects.

**Exercise:**

1. Mention two examples of exotic breed of sheep.
2. Which exotic breed of sheep is well known for wool?
3. What is the gestation period of the sheep?
4. How do call a male sheep?
5. Mention any one sheep keep for meat.

**Lesson 5**

**Piggery (keeping of pigs)**

Piggery is the rearing and management of pigs.

**Terms used in piggery**

A SOW: Is a mature female pig

BOAR : A mature male pig

PIGLET: Is any young pig

GILT : Is a female young pig

STY : Housing structure for pigs

HOG : A castrated male pig

FARROWING : Is the act of giving birth in pigs

LITTER: Is group of pigs born at once

PORK : Fresh meat from pigs

BACON: Meat from the back and sides of pigs.

LARD : Fats from pork.

HAM : Dry processed meat of pigs.

**Why farmers keep pigs**

1. Pigs are sources of income to farmers.
2. To get pork and other products like lard.
3. Sources of employment to farm workers.
4. Pork, bacon, lard are source of proteins and fats to people.

**Other uses of pigs**

* Hair from pigs can be used to make bristles for tooth brushes and other brushes.
* cushions head wigs etc.
* Hooves from pigs can be burnt and used as ingredients in animal feeds.
* Blood from pigs can be used as ingredients in animal feed.

**Advantages of piggery**

1. Piggery is very profitable if managed well.
2. Need little capital to begin.
3. Requires a small piece of land to start the piggery farm.
4. Creates employment to farmers and other people in the community.
5. Profits can be realized in short period.
6. Pigs are easy and cheap to manage as they feed on all types of food.

**Exercise:**

1. Explain the following term in piggery.

* a sow
* a gilt.
* Sty.
* Farrowing.

1. Give two reasons why farmers keep pigs.

**Lesson 6.**

**Breeds of pigs**

There are two groups of breeds of pigs kept in Uganda namely:

Local breeds(Indigenous breeds)

Exotic breeds(Foreign breeds)

**Local breeds**

There are breeds that have been in Uganda for a very long.

**Example of breeds of pigs:**

Black pigs

Spotted pigs

**Characteristics of local breeds of pigs**

* Local breeds grow slowly
* Local breeds produce low quantities of pork
* They are small in size.
* They are not easily attacked by disease.

**Wild pigs**

There are pigs that live entirely in the bush.

**Examples:**

* Wart hogs
* Bush logs
* Hedge hogs.

**Cross – breeds (hybrids)**

* Cross-breeds (hybrids)

These are a result of mating two different pure breeds.

**Characteristics of hybrid**

* Produce better quality products compared to local breeds.
* They are more resistant to diseases than the local breeds.

**Exotic breeds**

Are breeds that were imported from other countries.

**Examples of exotic breeds.**

* Large white
* Land race
* Polland China.
* Hampshire
* Saddle back/sussex.

**Characteristics of exotic breeds.**

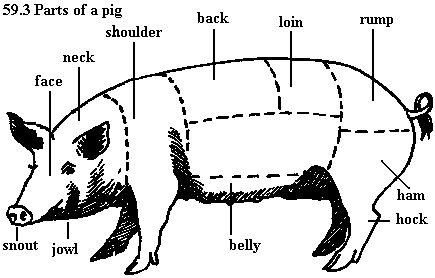
* Have the same ancestor
* Have the same ability to produce pork, bacon and ham.
* Have the same ability to grow fat and mature quickly.
* They mainly have the same colour.
* They have the ability to farrow the same number of litter.

**Exercise:**

1. What is piggery?
2. Mention one characteristic of local breed of pigs.
3. Give one example of exotic breed of pigs.
4. Suggest one reason for keeping exotic breed of pigs.

**Lesson 7**

**External parts of a pig.**



**Advantages of keeping exotic breeds of pigs.**

* Produce high quality of pork and bacon.
* Mature fast and early.
* Can grow to a large size.

**Factors considered when selecting a good quality pig**

* Heredity – The piglet should come from a good castral family.
* Good health – The piglet should show no signs of sickness/ poor health.
* Mammary glands – The piglet should have at least ten functional teats.
* Good body formation – The piglets should be well built in body structure.

**Exercise:**

1. Give any two advantages of keeping exotic breeds of rabbits.
2. Mention any one factor to consider when selecting a pig for rearing.

**WEEK 4**

**Lesson 1**

**Systems of keeping pigs**

* Extensive system (out door system)
* Semi-intensive system.
* Intensive system.

**Extensive system**

Is where the pigs are left to roam about looking for food.

Some times they are tethered.

**Advantages of extensive system**

* It is cheap to maintain.
* Pigs get to eat a variety of food.
* Extensive system requires less labour.

**Disadvantages of extensive system**

* Pigs are easily infected with diseases.
* The pigs can easily be stolen by thieves.
* Pigs can easily be killed by wild animals.
* Pigs can stray and destroy farmer’s crops.
* The pigs can turn wild.
* Pigs can easily get worms and other parasites.

**Intensive system**

Is where pigs are permanently kept indoors (stys)

**Advantages of the intensive system**

* The pigs give high yields.
* Pigs are in most cases healthy (free from diseases)
* The death rate is low.
* Pigs receive maximum care and attention.
* It is easy to monitor individual pigs.
* Pigs grow and mature quickly.
* Pigs are not wild but rather friendly.

**Disadvantages of intensive system**

* It is expensive to manage.
* It is tire-some as it requires a lot of labour.
* Food and treatment are expensive.

**Semi-intensive system**

A system when pigs are left to roam and at a certain time of the day they are locked in their house.

**Exercise:**

1. Mention systems of rearing pigs.
2. Give the advantages of free range system.
3. Mention one disadvantage of free range system of keeping pigs.
4. Of what advantage is intensive system over extensive system?

**Lesson 2**

**Factors considered when choosing a good site for a sty.**

* Well drained land (area).
* Nearness to the water source.
* Cool environment.

**Characteristics of a good sty.**

* Strong and well build to prevent the pigs from escaping.
* The floor should be slating to allow easy cleaning and flow of urine and faeces. Good drainage system inside and outside the sty to allow easy flow of wastes.
* Well ventilated to allow free circulation of air.
* Enough space for storage of feeds, water and farm equipment.
* Should have a farrowing pen for farrowing.
* Guard rails to prevent the sow from injuring the piglets while suckling.

**Selection and breeding of pigs**

**Qualities of a good boar.**

* Vigorous and healthy
* Well developed straight fat and short legs.
* Free from hereditary defects.
* Calm and easy to handle.

**Qualities of a good gilt**

* Efficient use of feeds.
* Healthy and vigorously built.
* Free from furrowing problems.
* Should have at least ten functional teats.

**Heat period**

This is when a sow is ready to be mated.

A sow first comes on heat at 6 months.

**Signs of a sow on heat**

* Restlessness
* The sow mounts other animals.
* Stands still when mounted.
* The vulva swells and becomes reddish.
* Whitish discharge from the vulva.
* Loss of appetite.

**Gestation period of a sow**

3 months, 3 weeks, and 3 days (112-225 days)

**Steaming up**

The feeding of a pregnant animal on special diet in preparation to delivery.

**When should steaming up be done in pigs?**

At least 1½ months (45 days to farrowing)

**Advantages of steaming up**

* Increase in milk production.
* Prevents low birth weights.
* Enables the foetus to grow well.
* Builds up the animal’s body to prepare for far rowing.

**Exercise:**

1. Identify two qualities of a good gilt.
2. Give two characteristics of a good sty.
3. What is heat period?

**Lesson 3**

**Care for pregnant sow**

**Feeds**

Sow meal and wearer’s meal are given to all breeding stock like boars, gilts, weaners, etc.

* A pregnant sow should be well fed to promoted the growth of the (fetuses)
* It should not mix with other pigs to minimize injuries.
* It should not be allowed to walk long distances since it is bulky (heavy).
* The sow meal contains fewer proteins than the creep feed.
* Creep feed has a higher protein content than any other feed.
* The creep feed is therefore used to feed piglets between 10 days-8 weeks) till they make 50 kg.
* Concentrates are also used as feeds in piggery.

**Examples of feeds.**

* Sow meals
* Bulky meal (food)
* Weaner’s meal.

**Diseases and parasites of pigs.**

There are many diseases and parasites that attack pigs for example:

1. African swine fever (hog cholera)
2. Pneumonia
3. Anthrax
4. Nagana (trypanosomiasis )
5. Anaemia (piglet anaemia)
6. Heart water
7. Foot rot.

**Exercise:**

1. Give any two feeds given to a pregnant sow.
2. Why should a pregnant sow be separated from other pigs?
3. Name any one parasite which attacks pigs.

**Lesson 4**

Among the parasites that attack pigs include Liver Flukes, Tape worms, Round worm and Ecto-parasites like ticks, red mites, depluming.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **DISEASE** | **CAUSE** | **SIGNS** | **SYMPTOMS** | **CONTROL / PREVENTION** |
| Swine fever (Hog cholera) | Virus | Bloody diarrhoea  Difficulty in breathing  Sores on the eyes  Dullness | High fever  Loss of appetite. | Isolation of infected animals.  Keep the house, water and equipment clean.  Quarantine  Kill, burn and burry infected animals.  Vaccination at 6-7 weeks of age. |
| Pneumonia | Bacterial | Difficulty in breathing  Coughing  Discharge from the nose | Loss of appetite. | Treat with antibiotics  Isolate the infected pigs. |
| Foot and mouth | Virus | Signs  Sharp rising temperature  Swelling of the mouth and feet.  Limping  Reduction in milk | Loss of appetite. | Vaccination  Applying Quarantine in the infected areas.  Isolate the infected animals.  Otherwise, there is no treatment. |
| Intestinal worms e.g. tape worms, round worms. |  | Swollen pot belly. | Loss of appetite. | Regular deworming  Drenching or closing the animals regularly.  Keep the feeds clean. |

**KEEPING FARM RECORDS**

Types of records kept on a piggery

* Litter records
* Furrowing records
* Feeding records.
* Operation records.

**Litter records**: The litter records contain the number of piglets born together, piglet weaned in each round and the number of times a pig produces every year.

**Farrowing records**: Is where we record the date of mating, the expected date of farrowing or delivery and the actual date of farrowing.

**Feeding records:** Is where we record the amount of feeds given to the pigs daily.

**Operation records**. This includes the weaning date, and the dates weighing, vaccination and drenching.

**Reasons for keeping records**

* They help the farmer to know the income and expenditure of the farm.
* They help the farmer to make decisions about the development of the farm plan.
* It helps the farmer to know whether he is operating at a loss or profit.
* Tell the history of the farm.
* Get loans.
* For fair taxation.

**Exercise:**

1. Identify any two diseases of pigs.
2. State two signs of swine fever in a pig
3. What are farm records?
4. Mention any three types of records kept in piggery

**Lesson 5**

**Food and nutrition**

**Nutrition** is the process of intake of food and using it in the body for its proper growth.

**Food** is anything we eat or drink and adds value to the body.

**Why do people eat food?**

Some reasons may be represented with 5 Hs namely:

Hunger, Habit, Happiness, Health and hospitality

**Importance of food in the body:**

* Food provides energy to the body.
* Food builds the body
* Food keeps the body healthy.

**Breast feeding**

**Advantages of breast feeding to baby:**

* Breast milk is a complete balanced diet for the new born baby
* It has some antibodies especially in the colostrums which helps to protect babies against some diseases. Colostrums is the first milk produced by the breast soon after delivery
* Breast milk is always clean and ready
* Breast milk is always at the right body temperature
* Breast milk is easily digested by babies

**Advantages of breast feeding to mothers:**

* + Breast feeding can delay the next pregnancy
  + Breast feeding is cheap to the family and mother in terms of expenditure
  + Breast feeding is time saving, convenient and available whenever the baby needs it even at night.
  + It improves the health of the mother as she has to eat in order to maintain breast feeding.

**Disadvantages of breast feeding**

* It spreads HIV/AIDS incase the mother has it.
* It cannot be applicable to a mother of working class.
* The mother suffering from breast cancer cannot breast feed a baby.
* Milk contains synthetic nutrients which are not readily digested by a baby’s digestive tract.

**Exercise:**

1. What is nutrition?
2. What is food?
3. Why do people eat food?
4. Mention two advantages of breast feeding to baby and a mother
5. Suggest anyone disadvantage of breast feeding.

**Lesson 6**

**Bottle feeding:**

This is done by filling a bottle with boiled cow milk or powdered milk and then giving it to the baby to suckle

**Advantages of bottle feeding**

* It can be used when the mother dies.
* It controls the spread of HIV/AIDS.
* It can be used when the mother is at work.
* The baby can be fed in the absence of the mother.

**Disadvantages of bottle feeding:**

* + It can easily be contaminated by houseflies
  + Bottles are difficult to clean properly hence causing germs to grow and spread.
  + Bottle milk can easily get contaminated causing sickness to the baby
  + Powdered milk is time consuming and difficult to prepare.
  + Cow’s or tinned powdered milk is expensive to buy
  + Some cow’s milk or powdered milk may be diluted so much causing milk lacking a complete diet.

**Vulnerable groups**

These are groups of people who are easily harmed by not having enough different types of food to eat.

**Examples of vulnerable groups:**

* Pregnant women and their un born children
* Breast feeding women and their breast fed children
* Weaning children
* Sick people
* Elderly people

**People with special needs in the community**

* Sick people
* The elderly
* Pregnant women
* Babies

**Care for people with special needs**

* Protection
* Medication
* Proper feeding
* Washing for them

**Exercise:**

1. Give one Advantage of bottle feeding.
2. State one disadvantage of bottle feeding to both the mother and the baby
3. What are condition may allow a mother to bottle feed her baby

**Lesson 7**

**Each vulnerable group needs a different type of diet from others**

**Babies and children:**

The special diet for babies and children includes;

* Body building foods which contains proteins
* Some of the foods which give us proteins are eggs, meat, milk, beans, fish and chicken
* Proteins are needed in the making new body cells
* Proteins are used for growth and repairing damaged body tissues and organs
* Proteins are also needed to make enzymes and antibodies
* Lack of proteins leads to sickness called kwashiorkor.
* Kwashiorkor is a deficiency disease.`

**Protective foods provide vitamins and minerals**

* Some sources of vitamin are liver, milk, fruit and vegetables.
* Vitamins and minerals help the body to resist diseases and boost body immunity
* A mineral like calcium is used in the growth of bones and teeth.
* Energy giving food are rich in carbohydrates:
* Some sources of carbohydrates are cassava, millet, maize and rice.
* If a child does not get enough carbohydrates he/she will develop a deficiency disease called marasmus
* **Carbohydrates** are needed in the body to generate energy
* **Fats:** These are used to produce energy to maintain body temperature and make the skin soft.

**PREGNANT WOMEN AND THEIR UNBORN CHILDREN**

Pregnant women need to eat food that will be enough for herself and for the un born baby growing in her womb.

A pregnant woman needs a balanced diet containing the following

**Proteins**

To build the body tissues of the embryo growing inside her womb and also repair her worn out cells.

**Carbohydrates**

To give her enough energy to carry the foetus in her womb and also to do her jobs

**Iron**

To build haemoglobin in her own and in her unborn baby

**Calcium**

To build strong bones and teeth of the unborn baby inside her womb.

**Vitamin**

To protect her and unborn baby from catching infections

**BREAST FEEDING WOMEN AND THEIR BREAST FED CHILDREN**

* Breast milk is the only food required for a baby up to four months
* A breast feeding mother needs to eat foods and drink fluids that will help her body produce enough milk for her baby
* She needs extra foods from all food values but two important ones needed are;
* **Fluids**
* To stimulate the production of more milk in her breast such as clean boiled water, milk, fruit juices, bushera, porridge etc
* **Calcium**
* To replace the calcium in her body that the child is taking in the breast milk

**Exercise:**

1. Give any one example of vulnerable group of people.
2. Why should children be fed on food rich in proteins?
3. Why should breast feeding mothers take a lot of fluids?

**WEEK 5**

**WRITING MIDTERM THREE EXAMS.**

**WEEK6.**

**Lesson 1**

**Weaning children**

This is the gradual introduction of semi solid foods to baby other than breast milk alone

It is better to start weaning the child at four months because of the following reasons;

1. The baby’s body needs more nutrients because the body is growing
2. The baby needs to get iron from other foods because the iron it was born with is used up and the mother’s breast milk does not contain iron
3. To prevent deficiency diseases like kwashiorkor and marasmus.

**How to start weaning children:**

* + Start with semi-liquid foods like porridge in which milk is added
  + Introduce one type of food at time until the baby gets used to it to avoid diarrhoea as the baby stomach is still weak to digest solid foods
  + Continue feeding frequently using other weaning food like porridge, mashed matooke, mashed posho, mashed rice, mashed fruit or all the food can be mashed and given at the same time
  + Remember children have small stomachs and need many meals a day.

**Sick people**

These need good food and extra fluids in order to help the body fight sickness.

Most of the foods include the following;

**Proteins:**

To repair the worn out tissues during sickness/Replace damaged cells.

**Vitamin and minerals salts:**

The most important are vitamin C, Calcuim and iron to build the body defence and also help in manufacture of blood.

**Fluids:**

To prevent dehydration

Such foods include clean boiled water, fruit juices, ribena, lucozade, tea, soup, from meat, fish soup.

**Frequent feeding:**

Sick people may not be able to eat very much at one time so they should be fed with easy food.

**Elderly people:**

When people grow old, they often lose their teeth which cause health problems, such that they do not crush their food for easy digestion which can cause indigestion or constipation.

So elderly people need the following food which is easy to eat such as minced meat, fish without bones, mashed fruits etc.

Frequent feeding because they may not be able to eat very much at one time.

**Exercise:**

1. Briefly explain the term weaning.
2. Why should weaning of babies be done at four month?
3. How are proteins useful to a sick person?

**Lesson 2**

**TRADITIONAL CUSTOMS AND FOOD TABOOS**

These vary from community to another.

A custom is an established practice which is accepted in a community

Customs related to eating and drinking are usually based on religious or social beliefs.

Food taboos are traditional practices forbidding a community from preparation and eating some types of food.

**There are many of these food taboos in different communities, below are some the religious and cultural food taboos:**

1. Muslims and seventh day Adventists are not allowed to eat pork by their religion.
2. Catholics are not supposed to meat on Fridays during the lent season
3. In the past women were not allowed to eat chicken and eggs among some tribes in Uganda.
4. In some tribes women are not supposed to eat mutton and goat meat
5. Among some tribes men are not allowed to eat lungs
6. In some tribes newly wedded couple are not supposed to touch a bone until the bride’s father-in-law has killed a bull
7. One is not supposed to eat his totem for example members of the mamba clan in Buganda are not allowed to eat the lung-fish, which is their totem

**Effects of food taboos in nutrition**

* Other food taboos can result into serious nutrition deficiency diseases eg kwashiorkor, marasmus etc
* Children may lack certain food values in their body and become anaemic.
* Pregnant women may become malnourished and produce under weight babies.
* Alcoholic drinks, too, results in a family problem and can lead to malnourished children.

**Advantages of traditional customs and food taboos:**

* + Taboos help to conserve some plants and animals, because they are held in high esteem as totems
  + Food taboos help to shape our eating habits to suit the values and norms of our communities

**Disadvantages of traditional and customs and food taboos:**

* + 1. They affect mainly women and children yet these groups are vulnerable and often need the food they are forbidden to eat.
    2. Some food taboos are associated with food such as liver, chicken and eggs which are rich in proteins
    3. Such taboos mean that children and women are denied some protein-rich foods sometimes leading to food deficiency diseases like kwashiorkor

**For example:**

* + - * People in Buganda eat mostly bananas, cassava, coco yams and white yams
      * People in Busoga eat sweat potatoes, cassava, millet, and some bananas
      * People in Teso, Karamoja, Acholi, Lang, and West Nile eat mostly millet, mixed with cassava, cassava alone, sweat potatoes, sorghum mixed with cassava.

Therefore the feeding patterns of people depend on in which region these people are and the food mostly eaten is their staple food.

**Food consumption patterns**

People in different communities eat different food stuffs.

These food stuffs determine their staple food in that community.

Staple food is one’s main food.

It is the basic food that is cheap and usually eaten mostly by every one in that community

**Exercise:**

1. What are vulnerable group of people?
2. Give examples of vulnerable group of people.
3. Identify any three people with special needs in the community.
4. How can a community care for people with special needs?

**Lesson 3**

**Malnutrition and Deficiency diseases:**

The common food deficiency diseases are kwashiorkor, marasmus, goiter, rickets, anaemia and beri beri.

The table below shows deficiency diseases, their symptoms, causes and prevention

|  |  |  |
| --- | --- | --- |
| **DISEASE** | **SYMPTOMS** | **CAUSE AND PREVENTION** |
| ***Kwashiorkor*** | * Pealing skin * Swollen face(moon faced) * Brown hair * Loss of weight * Wasted muscles * Pot belly | * Lack of enough proteins in the diet * Feed on foods like meat, fish, eggs, milk which are rich in proteins |
| ***Marasmus*** | * Constant hunger * Loss of weight * Children grow thin * A sunken stomach | * Lack of enough carbohydrates in the diet * Feed on foods like maize, potatoes, cassava and yams |
| ***Scurvy*** | * Bleeding gums * Pain in joints and muscles. | * Lack of vitamin C in the diet * Feed on fruits and green vegetables |
| ***Rickets*** | * Soft bones * Deformed and swollen legs * Brittle bones and teeth | * Lack of enough vitamin D, Calcium and phosphorus * Feed on egg yolk and fish |
| ***Beriberi*** | * Muscular weakness * Loss of control and paralysis * Slow growth | * Lack of enough vitamin B1 in the diet * Feed on beans, egg yolk and meat |
| ***Pellegra*** | * Skin disorders * Eye and mouth sores * General body weakness | * Lack of vitamin B2 in the diet * Eat food rich in vitamin b2 |
| ***Anaemia*** | * Severe tiredness * Pale skin | * Lack of enough iron in the diet feed on green vegetables kidney egg and milk |
| ***Night blindness*** | * Poor vision at night * Dry skin | * Lack of enough vitamin A in the diet * Feed on green vegetables, carrots, liver, egg yolk and milk. |
| ***Goitre*** | * Swollen neck | * Lack of iodine * Feed on fish and table salt |
| ***Low ability of blood to clot*** | * Failure of blood to clot. | * Lack of enough vitamin K in the diet * Feed on green vegetable like cabbages and dodo. |

**Staple food**

This is also called ones main food.

It is the basic food that is cheap and most often eaten by everyone.

Depending on which area you live in Uganda, this may be matooke, maize meal, millet, sorghum, and cassava of potatoes.

**Food security**

This is the keeping of enough food for future use.

**Importance of food security**

* Humans can be fed more efficiently on plant based diet as they require less water land and crops than meat based diet.
* They reduce the risk of conflict over the scarce water and grazing land.
* They prevent deficiency diseases that can spread in humans.
* They do not require human reliance on domestic animals for food when survival of animals can be uncertain e.g in times of drought.

**Exercise:**

1. What are food taboos?
2. Mention two effects of food taboo to the body.
3. What are deficiency diseases?

**Lesson 4**

**Primary health care (P.H.C)**

Primary health care is the essential health care in which individuals, families and communities work together to solve their health problems.

**Principles of P.H.C**

**NB** Principles are basic rules followed while carrying P.H.C programme.

i) P.H.C programmes must benefit every body (total health for all people)

ii) People’s needs must be dealt with according to priority. (starting with the most urgent)

iii) All members of the community must be involved.

iv) Many approaches must be used while carrying out P.H.C activities.

V) Total health for all.

**Health**

Health is the physical, emotional, intellectual wellbeing of an individual and not merely the absence of a disease.

**Elements of P.H.C**

Elements of P.H.C are programmes that are meant to protect and maintain good health.

**Examples of elements of P.H.C**

i) Accidents and first aid.

ii) Immunisation

iii) Family planning.

iv) Water and sanitation

v) Personal hygiene

vi) Food hygiene and nutrition.

vii) Oral and dental health care.

viii) Maternal and child health care.

ix) Community health education.

x) Control of Communicable Diseases.

xi) Public health, nursing and home visiting.

xii) Collection of statistical data.

xiii) Ante-nantal and post natal care for mothers.

xiv) CCD – Control of Communicable Diseases and CDD (Control of Diarrheal Diseases)

**Activities on PHC in promotion of community hygiene**

* Rubbish burning.
* Proper disposal of faeces.
* Protecting water sources.
* construction of bore holes.
* Construction of pit latrines.

**Exercise:**

1. What is primary health care?
2. What are the principle of P.H.C?
3. Cite the meaning of the term health.

**Lesson 5**

**Community health education**

i) Keep the people informed on how to care for their own health e.g boiling water for drinking.

ii) Food hygiene and nutrition:-

Enables people to know the importance of a balanced diet and the dangers caused by poor feeding.

iii) Immunisation: Helps people to prevent immunisable diseases in the community.

iv) Maternal and child health care.

Advises mothers and children about their health status and how to live healthy.

v) Water and sanitation – helps communities to have clean and safe water for drinking e.g by digging wells/ boreholes for people in the community and protecting water sources.

vi) Oral and dental health care:-

Is concerned with preventing dental problems like tooth decay and gum diseases among people in the community.

vii) Family planning: teaches people methods of birth control.

viii) Accidents and first aid: teach and equip people with skills of giving first aid to casualities.

**Responsibilities of individuals in P.H.C**

Maintaining good personal hygiene through:

* Proper washing of the body and face at least twice a day.
* Brushing of teeth in the morning and after every meal.
* Washing hands with soap before and after every meal and after using the

latrine.

* Cutting short of fingers nails and toe nails.
* Washing clothes and beddings regularly.
* Washing the face and eyes every morning.
* Grooming hair.

**Exercise:**

1. Identify any one role of an individual in promoting P.H.C.
2. What is the importance of immunization to a community?
3. Why should people boil water for drinking?

**Lesson 6**

**Activities a family can do to promote P.H.C**

* A family should avoid poor disposal of faeces and urine / proper use of

latrines.

* Proper disposal of rubbish / house refuse.
* Boiling water for family members to drink.
* Cleaning breeding places for vectors near the home.
* Feeding family members on a balanced diet.
* Sharing information on health.
* Family members should avoid drug abuse.
* Practising good food hygiene.

**Activities of a community in promoting P.H.C**

* Protecting water sources to avoid water pollution / contamination.
* Digging a rubbish pit / distributing garbage container for proper disposal

of rubbish.

* Growing and caring for crops to promote good nutrition.
* Constructing public latrines in public places like taxi parks, e.t.c for proper

disposal of faeces and urine.

* Creating public awareness about immunization activities.
* Constructing rehabilitation centres for people with disabilities.
* Organising communal work to improve on sanitation.
* Organising public fumigation to kill vectors like mosquitoes, houseflies,

tsetse flies,

**Exercise:**

1. How can a family promote P.H.C?
2. Give the importance of having a rubbish pit in a home.
3. Identify any one activity a community can do to promote P.H.C.

**Lesson 7**

**Suitable lifestyles and health practices**

All people should live in a way that reduces chances of catching diseases e.g.

* Eating a balanced diet.
* Getting enough rest and sleep for body and brains to get refreshed.
* Maintain good body posture to avoid deformations.
* Avoiding drug abuse to minimize health problems like diseases
* Washing and ironing clothes and bedding to kill germs.
* Doing physical exercise daily to refresh our bodies, burn excess fats,

strengthen our body muscles, improve on the internal body organs, e.t.c.

* Visiting health workers early incase of any problem.
* Caring for other people with disabilities or health problems /

complications.

* Reporting health problems like diseases out break early.

**Good health practices in sc**

A health parade is a gathering where pupils are checked with the aim of promoting personal hygiene.

* Health parades promote personal hygiene in the school.
* Having a school health committees to:
* Organise fellow children to do communal work.
* Encouraging parents to take their children for immunization.
* Inviting health workers to have talks on health matters with children.
* Promoting gardening to impart good farming methods in earners, promote

good Nutrition and develop a positive attitude towards farming in learners among others.

**Exercise:**

1. State one example of a suitable health life style.
2. Briefly explain the meaning of a health parade.
3. Give one activity carried out on a health parade.

**WEEK 7**

**Lesson 1**

**Child to child programmes**

Child to child programme is a programme where older children teach the younger ones good health habits.

They perform activities from which children learn how to work together and help each other on health matters.

**Activities which are involved in child to child programme?**

* Older children teaching young ones how to maintain personal hygiene

e.g brushing teeth.

* Older children can play with young children.
* Helping the disabled children in washing their clothes, cooking food,

fetching water for them, etc.

* Teaching young children toilet habits.
* Caring for other children who are sick.

**Topical questions**

1. Write P.H.C in full.

2. What is Primary Health Care?

3. Give any one principal of primary Health care.

4. Which element of P.H.C promotes prevention of the six killer diseases?

5. Which activities can primary five pupils do to promote P.H.C?

6. A part from the elements of P.H.C mentioned above give any other two elements of P.H.C.

7. How can people in the community promote good sanitation?

8. Identify any roles of a family in promoting P.H.C.

9. Give any one suitable lifestyle that can promote good health in an individual.

10. Give any two roles of a school health committee.

11. Why is it very necessary to have the following in a home?

i) A latrine

ii) A rubbish pit

12. Give any one activity of a health club in a school.

MATHEMATICS

TERM ONE

LESSON : 1

: SET CONCEPTS

: Types of sets

An empty set

An empty set is a set with no members. We can also refer to it as a set without reality.

Examples of empty sets:

A set of boys in P.5 who eat stones for lunch

A set of girls in P.5 class who are two years old.

A set of dogs that walk on one leg

The above set can be represented as follows;

Set M is a set of dogs with two legs

M = { }

*Note that the curly brackets have no member inside because the set does not have any member.*

An empty set can also be represented as ∅

Note:

{ } is not a symbol for an empty set but the empty set itself.

2. Equal and un equal

Equal Sets:

These are sets with the same number of elements of the same type.

The symbol = is used to refer to equal sets.

Examples of Equal sets:

1. Set M = {a, b, c, d} Set N = {c, a, d, b}

n(M) = 4 members n(N) = 4 members

Sets M and N have similar members.

Therefore Set M and

set N are equal sets.

So we write; M = N

Note: If sets are not equal then they can be described as un equal. And the symbol ≠ is used to compare such sets.

3. Equivalent and non equivalent

Equivalent sets are sets with the same number of elements but of different type

The members are different but have the same number of elements.

Examples of equivalent sets

1. Set Z = {a, e, i, o, u}, set K = {p, b, c, d,f},

n(Z) = 5 members n(K) = 5 members

Therefore, Set Z is equivalent to set K.

This is written as Z ↔ K

 2. Set Y = { , , } set T = {m, a, n, g, p}

N(Y) = 3 members n(T) = 3 members

Y and T are not equivalent sets.

This is written as; Y T.

*Note: If sets are not equivalent, then they are described as non-equivalent. The symbols or*

*are used to compare such sets.*

Activity:

1. Define: i) Equal sets ii) Equivalent sets

2. Given that K = {p, q, r} R = {m, a, n}

Sets K and R are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ sets.

1. Given the sets below:

F = {d, o, g}, T = {dog}, M = {g, o, d}, N = {god}

Write ‘equal’ or ‘equivalent’ in the spaces below.

Set F and set T are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Set F and set M are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Set T and set N are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. Represent the following sets on venndiagrams

Set T = {d, o, g} Set W = {g, o, d}

Set y = {dog} Set Z = {g o d}

References:

MK Primary maths bk 4 pg 5 - 8

MK Primary Maths bk 5 pg 1

MK Tr’s gd bk 5 pg 1 - 4

4. Joint and Disjoint sets

Joint sets are sets with some common members. Joint sets can be referred to as intersecting sets.

Examples of Joint sets;

Set A = {b, i, c} Set B = {b, i, r, d}

Common members are = {b, i}

Sets A and B are therefore Joint sets.

Sets A and B can also be represented on the venn diagram

B

A

A B

Members *b* and *i* are intersecting elements so, sets A and B are Joint sets.

c

b

i

r

d

Disjoint sets: These are sets without any common member(s) to join them.

Examples of Disjoint sets:

1. Set P = {1, 2, 4, 6}, Set M = {a, b, f, c, d}

Sets P and M are disjoint sets because they do not have any common members joining them.

2. Given sets A and B;

f

c

d

b

a

4

2

1

6

A

B

M

P

6

4

2

1

c

d

b

f

a

Sets A and B are disjoint sets.

Activity

1. Given that sets D = {3, 4, 5, 6} and set E = {7, 8, 9}.

Give a common name to sets D and E

1. Given the sets below:

Set T = {mango, guava, orange}

Set M = {pawpaw, tomato, onion}

Set R = {fish, meat, tomato, mango}

Set K = {meat banana, fish}

Use ‘Joint’ or ‘Disjoint’.

a) Sets T and R …………………………………….

b) Sets K and T ……………………………………..

c) Sets R and M …………………………………….

1. Draw venndiagrams and represent sets P and Q. where

P = {p, q, r, s } and Q = { b, c, d, e, f, g }.

Reference:

Teachers’ own collection.

LESSON 2

5. Intersection set

The intersection set is a set of common members to the given sets. The symbol for the intersection set is ∩

Examples:

1. Set P = {man, ~~woman~~, boy} set R = {boy, ~~man~~, ~~woman~~}

Common members are {man, woman}

Therefore P∩R = {man, woman}.

2. X is a set of vowel letters of the English alphabet

Y = {a, b, c, d, e, f}. Find X *n* Y

X = {~~a~~, ~~e~~, i, o, u}

Y = {~~a~~, b, c, d, ~~e~~, f}

X ∩ Y = {a, e}

On a venn diagram, the intersection is the region shared by

the given sets.

Example:

P∩Q

P

Q

1.

6. The Union set

The union set is a set of all members of the given sets

put together. The symbol ∪ denotes the union set.

For example, the union of sets M and N is written as M ∪ N

(the union of set M and N).

Examples:

1. Set B = {1, 2, ~~3~~, ~~4~~, 5} Set C = {0, ~~1~~, ~~3~~, ~~4~~}.

Find B∪C

B∪C = {0, 1, 2, 3, 4, 5}

2. Given that P = {a, ~~b~~, ~~c~~} set Q = {~~b~~, k, ~~c~~}.

Find i) P∪Q

P∪Q = {a, b, c, k}

ii) n(P∪Q) =

P∪Q = {a, b, c, k}

n(P∪Q) = 4 members.

*Note: when listing the members of the union set common*

*members are written only once.*

The union set on the venn diagram will refer to all the regions of the given sets taken at once.

For example:

H

K

1.

2.

**S**

R

Reference:

MK Prim. Mtc bk5 pg 5 - 7

MK Trs’ gd bk 5 pg 6

Func. Prim mtc bk 5 pg 7 - 8

Difference of sets.

This involves elements that are in one set but not in the other.

For example:

Given that Set A = {a, b, c, d, e} B = {a, e, i, o, u}

i) Find A –B (Members in set A only)

A –B = {b, c, d}

ii) Find B – A= (Members in B only)

B – A = {i, o, u}

On the diagram consider

A B A B

A – B= ( A only ) B – A =(B only)

8. Complement of sets.

This also refers to elements of sets that are outside the given sets

The symbol (‘) can be used i.e. A, B, C, etc.

For example given that set A = {1, 2, 3, 4, 5} and B = {1, 3, 5, 6, 7}

A = {6, 7} – Elements outside set A or not members of set A.

B = {2, 4} – Elements of A bot not in B

Consider A B A B

A B

LESSON 3

Shading regions on plain venn diagram

Question 1 . Draw venn diagrams and shade the following regions.

a) AnB b) XUY c) B – A d) ( F n G)

 A B X Y A B F G

Note: Give learners variety of activities related to shading regions involving intersection, union, complete, difference, only, etc.

Question2. Describe the shaded regions on the venn diagram shown below.

a) A B b) X Y c) K M d) A B

e) F G

Select suitable activities that involve shading in order to enrich the concepts of different regions.

LESSON 4

Elements on the venn diagram

More on sets and venn diagrams

Example1.

1. Set P is a set of all even numbers less than 5.

Set R = {1, 2, 3, 4, 5}.

i. Show sets P and R on a venn diagram.

P

R

2

1

4

3

0

5

P = {0, ~~2~~, ~~4~~,}

R = {1, ~~2~~, 3, ~~4~~, 5}

ii. List the members of set P

P = {0, 2, 4}

iii. Find n(P∪R)

P∪R = {0, 1, 2, 3, 4, 5}

n(P∪R) = 6 members

iv. Find P∩R

P∩R = {2, 4}

Example 2.

b

f

a

g

h

c

R

S

d

m

Use the Venn diagram below to answer the following questions;

Find the following:

1. R ∩ S ii) R∪S

R∩S = {b, f, m} R∪S = {a, b, c, d, f, g, h, m}

iii) n(R)= iv) n(R∪S) =

R = {a, b, f, g, m} R∪S = {a, b, c, d, f, g, m}

n(R) = 5 members n(R∪S) = 7 members.

*Note: Before stating the number of members in a given set*

*first, list them then count thereafter.*

Activity:

1. Use the Venn diagram below to answer the questions that follow:

Find a) i T ∩ R

ii n(T∩R)

b) i R∪T

ii n(R∪T)

1

2

3

5

8

7

T

R

6

4

5

1

2

8

4

7

**D**

**C**

8

2.

Find a) C ∩ D

b) n(C∪D)

3. Set A is a set of all vowel letters of the English alphabet.

Set B = {a, b, c, d, e, i}.

1. Show sets A and B on a Venn diagram.
2. Find n(A∩B)
3. List the members of A∪B

Reference:

Fountain Primary Mtc bk 5 pg 7 - 8

Underst. Mtc bk5 pg 5 - 10

MK Prim. Mtc bk 5 pg 5 - 7

Mac. Prim mtc bk5 pg 8 - 9

LESSON 5

Representing number of elements on the Venn diagram

Example 1.

The Venn diagram below shows the elements of P and Q.

P = {a, g, f, m, b}

n(P) = 5

Q = {f, m, b, h, d, c}

n(Q) = 6

P – Q = {a, g)

n(P – Q) = 2

AnB = {f, m, b}

n(AnB) = 3

Q – P = {h, d, c}

n {Q – P} = 3

P Q

a g f m b h d c

P Q

2 3 3

n(P) = 2 + 3 = 5

n(Q) = 3 + 3 = 6

n(PnQ) = 3

n(PUQ) = 2 + 3 + 3 = 8

Example 2.

Given that n(X) = 10, n(Y) = 12 and n (AnB) = 4

a) Represent the above information on the venn diagram

P Q

N(P) = 10

n(Y) = 12

n(PnY) = 4

n(P – Y) = 10 – 4 = 6

n(Q – P) = 12 – 4 = 8

Find n(PUQ)

n(PUQ) = 6 + 4 + 8 = 18

c) Find n(PnQ)

n(PnQ) = 6 + 8

n(PnQ) = 14

6 4 8

Activity

1. Given that set n (A) = 20, n(B) = 16 and n(AnB) = 8

a) Represent the above information on the venn diagram below.

i) n(AUB)

ii) n(AnB)

2. The venn digram below shows elements of set K and M

K M

r f h g s t u q v l e

a) Represent the number of elements in each of the region in the venn diagram above on the diagram below

n(K) n(M)

b) Find

i) n(KUM) ii) n (KnM)

LESSON 6

Universal set

This is a set that can contain other small sets.

The symbol is used to describe universal set

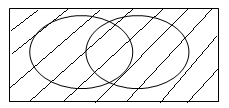
Example

= {a, b, c, d, e, f, g h, i, j}

A = {a, b, c, d}

B = {a, e, i, g}

Below is a universal venn diagram



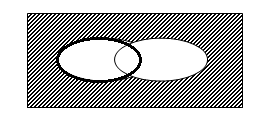
 A B

=

Shading regions on the universal Venn diagram

Example

Draw the venn diagram and shade the following regions;

a) (AUB)

b) A – B



Y

A

A

B

A

B

B

A



B

B

A

c) AUB d) B – A

Example 2.

Describe the shaded region on the venn diagram below

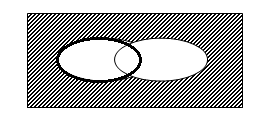


M

K

 b)

a)



W

X

c) d)

Z

NOTE: Avoid inducing learners to concepts like A , B etc. on universal Venn diagram

LESSON 7

Representing elements on universal venn diagram

Example

Given that = {a, b, c, d, e, f, g, h, i, j} , A = {a, b, c, d, e } B = {a, e, i, g}

a) Represent the above information on the venn diagram

A B

j

h

i g

e

b) Find

i) AUB = {a, e, b, c. d, i, g} ii) (AUB) = {j, h} iii) (AnB) ={b, c, d, i, j, g, h}

Activity

1. Given that

= {1, 2, 3, 4, 5, 6, 7, 8, 9} K= {1, 3, 6, 7, 9} M = {1, 3, 5, 6, 8}

a) Represent the above information on the venn diagram

b) Find

i) n( ) ii) KUB iii) n(KnM)

2. Study the venn diagram below and use it to answer the following questions



a) Find n( )

b) AUB

c) (AUB )

d) A- B

e) B – A

A B

e

f g h

k j i

LESSON 8

Number of elements on the universal venn diagram

 Consider the venn diagram below.

g h i j

W X

4

a b c

n(W) n(X)

m l k n

The above set can be represented using number of elements in each region as shown below

 N( ) = 14

4

Example

Given that n( ) = 40, n(A) = 20 , n(B) = 18 and n(AnB) = 10

a) Represent the above information on the venn diagram below

n( ) = 40

n(A) = 20 n(B) = 18

8

10

12

b) Find n(AUB) c) n(AnB)

Activity

1. Study the venn diagram below and use it to answer the following question

a) Complete the venn diagram

 n( )

b) Find

i) n( ) ii) n(PUK) iii) n(PnK)

n(P) = 40 n(K) = 30



\_\_\_\_\_

14

10

2. Given that n(X) = 30 , n(W) 40 , n(XnW) = 12 and n( ) = 60

a) Represent the above information on the venn diagram below.

 n( ) = \_\_\_\_\_

n(W) \_\_\_\_

n(X) \_\_\_\_

\_\_\_\_

\_\_\_\_

\_\_\_\_

b) Find

i) n(XUW) ii) n(XnW)

LESSON 9

Subsets and Proper subsets

A subset is any part of a given set. An empty set is a subset of every set and any given set is a subset of itself.

The symbol ⊂ is used to stand for ‘is a subset of’. For example, if P is a subset of Q then we write P ⊂ Q.

A proper subset is a set that does contain all the members of the given set.

On the Venn diagram, the subset may be equal or smaller than the set from which it is derived.

On the venn diagram below, describe the relationship between sets D and H

D

H

H⊂D

R

Y

Y ⊂ R

Forming Subsets and proper subsets

Example;

1. If set A = {b, c}. List down the possible subsets that can be obtained from set A.

Possible subsets in A = { }, {b}, {c}, {b, c}.

1. Set P = {2, 4, 6}, Possible subsets if P include:

{}, {2}, {4}, {6}, {2, 4}, {2, 6}, {4, 6}, {2, 4, 6}

3. Given that set A = {a, b, c}. List down all proper subset of set A

Activity:

1. Draw a venn diagram to show that set M is a subset of set N
2. If set X = {a, b}, find the subsets in set X.
3. Set P = {8}. List the possible subsets that can form in set P.
4. How many subsets can be obtained from set B if B = {}.
5. Given that F = {cow, dog, goat}. List the subsets in set F.

6. List down all the proper subset of set B if B = {r, s, t}

7. Given that K = {0, 1, 2} Write down all proper subsets of set K

NOTE: Give learner’s sets with maximumly 3 elements

Reference:

Func. Mtc bk 5 pg 8 - 9

Mk Prim mtc bk 5 pg 16 - 18

MK Tr’s gd bk 5 pg20 - 24

LESSON 10

Number of subsets and proper subsets

We can find the number of subsets or proper subsets in a given set by first listing the subsets then count them

Examples:

1. If A = {k, r, t}. Find the number of subsets in set A.

Method i)

A = {k, r, t}

Possible subsets = {}, {k}, {r}, {t}, {k, r}, {k, t},

{r, t}, {k, r, t}.

Therefore, set A has 8 Subsets.

Considering the above, we can also find the number of subsets using the formula as follows;

LESSON 11

Number of subsets and proper subsets

If set A = {k, r, t},

Subsets are { }, { k } , { r } , { t } , {k,r} , {k,t} , {r, t} , {k, r, t}

Number of subsets = 8 ,

but 8 can also be written as

8 = 2 x 2 x 2

8 = 23

Number of sub sets =  23

|  |  |
| --- | --- |
| 2 | 8 |
| 2 | 4 |
| 2 | 2 |
|  | 1 |

In this case 3 which is a power stands for the number of elements in set K

i.e. set K = {k, r, t}

n(K) = 3

Therefore, if n(A) = “n” elements , then

Number of subsets = 2n

Example

1. How many subsets are in set A if n(A) = 4 elements

Number of subsets = 2n

= 24

= 2 x 2 x 2 x 2

= 4 x 4

Number of subsets = 16

2. Given that T = {a, b, c, d, e}

How many subsets are set T?

T = {a, b, c, d, e}

n(T) = 5

Number of subsets = 2n

= 25

= 2 x 2 x 2 x 2 x 2

Number of subsets = 32

Note: Proper subset can also be calculated using the same formula by subtracting one

For example proper subsets = 2n – 1 That one which is subtracted is the original set.

3. I*f* Set K = {o, p, q}. How many proper subsets are in set K?

K = {o, p, q}

n = 3 members

No. of proper subsets = 2n - 1

= 23-1

= (2 x 2 x 2)-1

= 8-1

= 7

K has 7 proper subsets

Activity:

1. Given that Set T = {2, 5, 9}. Find the number of subsets in

Set T (by first listing the subsets).

2. Find the number of subsets in the following sets

Calculation:

1. X = {p, r, s, t}
2. M = {4, 8}
3. R = {♣, ♥}
4. F = {∅}
5. D = { }
6. Set Y is a set of vowel letters in the English alphabet.
7. Find the number of proper subsets in set Y. Given that Y = {a, e, i, o, u}
8. Calculate the number of subsets in set G which has four elements

Reference:

MK Prim. Mtc bk 5 pg

Func mtc bk 5 pg

LESSON 12

WHOLE NUMBERS

Place Value of digits

Place value refers to the position of digit in a given number. For example ones, position, tens, hundreds, etc. Value refers to the absolute quantity that a digit has as far as its position (place value) is concerned.

Place value of a digit

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Millions | Thousands | | | Units | | |
| H/Th | T/Th | Th | H | T | o |
|  |  |  |  |  |  |

O - Ones

UNITS

T - Tens

H - Hundreds

Th - Thousands

THOUSANDS

T/Th - Ten Thousands

H/Th - Hundred Thousands

M - Millions

MILLIONS

Consider:

State the place value of each digit in the number 2354

2 3 5 4

Ones

Tens

Hundreds

Thousands

Place value of:

4 = Ones

5 = Tens

3 = Hundreds

2 = Thousands

**∴**

Note: *Match the digits and their respective place values by inserting them in the table right to left respectively.*

*Value of a digit of each digit in whole numbers.*

*Value of a digit = digit x its place value*

*Consider*

1. State the value of each digit in the number 7294.

Ones = 4x1 = 4

Tens = 9x10 = 90

Hundreds = 2x10x10 = 200

Thousands = 7x10x10x10 = 7000

Value of:

4 = 4

9 = 90

2 = 200

7 = 7000

**∴**

7 2 9 4

1. State the value of 5 in the number 3504

Short approach

Value of 5 = digit x place value

3 5 0 4

Th H T o

5 x 100 = 500

Value of

5 = 500

**∴**

1. Add the value of 2 to the value of 8 in the number 42583

Value of 5 = digit x place value

4 2 5 8 3

HThTh H T o

2 x 1000 = 2000

Value of:

2 = 2000

8 = 80

2080

**∴** Sum of value of 2 and 8 = 2080

8 x 10 = 80

+

Activity:

1. State the place value of each digit in the number 946.
2. What is the place value of 6 in the number 9567?
3. State the value of each digit in the number 2813.
4. State the value of the underlined digit in the following numbers:

a) 296 b) 8743

5. Add the value of 8 to the value of 9 in the number 48793

Reference:

Mac. Prim mtc bk5 pg 16 - 18

MK prim mtc bk 5pg 26 - 27

Fountain Prim mtc bk 5 pg 20 - 21

LESSON 13

Expanding Whole numbers

Numbers are commonly expanded in three ways; using place value, value or using powers.

Examples:

1. Expand 3842 using place values.

Ones = 2x1

Tens = 4x10

Hundreds = 8x10x10

Thousands = 3x10x10x10

3 8 4 2

3843 = (3x10x10x10) + (8x10x10) + (4x10) + (2x1)

**∴**

Or

= (3x1000) + (8x100) + (4x10) + (2x1).

1. Expand 493 using values

Ones = 2x1 = 3x1 = 3

Tens = 4x10 = 9x10 = 90

Hundreds = 4x10x10 = 4x100 = 800

4 9 3

493 = 400 + 90 + 3

*NB: When required to expand, do not simplify afterwards.*

Activity:

1. Expand the following using place values:
   1. 358
   2. 1628
   3. 42
2. Expand using values:
   1. 286
   2. 8294
   3. 406
   4. 56

Reference:

Expanding using powers

*Note: when required to expand using powers, multiply each digit by powers of the base in which the number is written.*

Examples:

1. Expand 472 using powers.

Ones = 2x1 = 2x1 = 2x100

Tens = 7x10 = 7x10 = 7x101

Hundreds = 4x10x10 = 4x1010 = 4x102

4 7 2

472 = (4x102) + (7x101) + (2x100)

Alternatively:

|  |  |  |
| --- | --- | --- |
| 102 | 101 | 100 |
| 4 | 7 | 2 |

472 =

472 = (4x102) + (7x101) + (2x100)

*NB: When a number to be expanded in power form has no base indicated, the number is taken to be in base ten (the standard base).*

Activity:

Expand the following using powers.

1. 85 4. 7384
2. 106 5. 597
3. 5602

Reference:

Mac. Prim mtc bk5 pg 17 - 18

MK prim mtc bk 5pg 30 - 31

MK Tr’s gd bk 5 pg30 – 31

LESSON 14

Finding numbers that have been expanded

Finding the number expanded, express the terms in value form

then add them up.

Examples:

1. What number was expanded to give 3000 + 900 + 20 + 4?

Number expanded = 3000

900

20

+ 4

3924 The number expanded was 3924

**∴**

2. Find the number expanded to give: (5x10000)+(6x100)+(8x10)

Number expanded = (5x10000) = 50,000

(6x100) = 600

+

(8x10) = 80

50,680

**∴**

Number expanded was 50,680

Write in short: (3x104) + (1x103) + (7x101) + (8x100).

Number expanded = (3x10x10x10x10) = 3x10000 = 30,000

(1x10x10x10) = 1x1000 = 1,000

(7x10) = 7x10 = 70

(8x1) = 8x1 = + 8

31,078

**∴**

Number expanded was 31,078

*Note: any number to raised to exponent 0 = 1 and any number raised to exponent 1 is that same number*

*(i.e. 100 = 10, 100 = 1)*

Activity:

Find the number expanded to give the following:

1. 2000 + 600 + 2
2. (5x1000) + (7x100) + (7 10) + (6x1)
3. (4x103) + (8x101) + (2x100).
4. 8x1000 + 3x10 + 5x1

Reference:

Mac. Prim mtc bk5 pg 17 - 18

MK prim mtc bk 5pg

MK Tr’s gd bk 5 pg

LESSON : 15

Writing whole numbers in words

Consider:

1. write 3428 in words

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Millions | | | Thousands | | | Units | | |
| H | T | O | H | T | O | H | T | o |
|  |  |  |  |  | 3 | 4 | 2 | 8 |

3428 = Three thousand four hundred twenty eight.

1. Write 6,408,259

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Millions | | | Thousands | | | Units | | |
| H | T | O | H | T | O | H | T | o |
|  |  | 6 | 4 | 0 | 8 | 2 | 5 | 9 |

6,408,259 = Six million four hundred eight thousand two hundred fifty nine.

Activity:

Write the following in words:

1. 561
2. 4683
3. 80041
4. 128406
5. 13804152

Reference:

Func Prim mtc bk 5 pg 21 -26

MK prim mtc bk 5 pg 28

MK Tr’s gd bk 5 pg27 - 28

LESSON : 16

SUBTOPIC : Writing whole numbers in figures.

Consider:

1. Write one hundred sixty four in figures

One hundred = 100

Sixty = 60

 four = + 4

164

1. Four thousand eight hundred seventy five.

Four thousand = 4000

Eight hundred = 800

Seventy = 70

 Five = + 5

4875

3. Three million nine hundred two thousand seven hundred thirty

Three million = 3000000

Nine hundred = 900000

Two thousand = 2000

Seven hundred = 700

 Thirty = + 30

3902730

Activity:

Write the following in figures

1. Two hundred eighty four.
2. Eight thousand nine hundred sixty eight
3. Nine million four hundred fifty one thousand two hundred forty three.

Reference:

Mac. Prim mtc bk 5 pg 17

Func prim mtc bk 5 pg 23 - 24

MK Tr’s gd bk 5 pg 28

LESSON : 17

Roman and Hindu Arabic Numerals

Changing from Hindu to Roman Numerals

There are two basic systems of writing used in Uganda; the

* + Roman System and the
  + Hindu Arabic System.

The standard Hindu Arabic digits used are

0, 1, 2, 3, 4, 5, 6, 7, 8, 9

And the standard Roman digits include: I, V, X, L, C, D, M.

All other numbers that are written using the digits above in

each system.

Relationship between the Hindu Arabic and Roman digits.

Roman I V X L C D M

Hindu Arabic 1 5 10 50 100 500 1000

Writing in Roman numerals from Hindu Arabic

In an attempt to write form Hindu to Roman numerals, we shall group the Roman numerals.

i) Repeated Roman Numerals;

Numbers with 2 and 3 are repeated Roman numerals. We write them by repeating a common Roman digit.

e.g. 2 = II

3 = III

30 = XXX

300 = CCC

3000 = MMM

20 = XX

200 = CC

2000 = MM

*The only digits allowed to repeat in this pattern are*

*I, X, C, M. If the number to be written is in ones counting sequence, use ‘I’, if in Tens; use ‘X’,*

*Hundreds use ‘C’ and Thousands; use ‘M’*

ii) Addition Roman Numerals;

Numbers with 6, 7 and 8 are addition Roman Numerals. We get them by adding a digit or so to a previous standard numeral.

e.g. 6 = 5 + 1 = VI

60 = 50 + 10 = LX

600 = 500 + 100 = DC

7 = 5 + 2 = VII

70 = 50 + 20 = LXX

700 = 500 + 200 = DCC

8 = 5 + 3 = VIII

80 = 50 + 30 = LXXX

800 = 500 + 300 = DCCC

*Please note, here, that in addition Roman numerals it is only those with 5 that we add to i.e. 5, 50, 500 and it again I, X, C that we use to add. In the same way, add I when counting in ones, X when in tens and C when in hundreds.*

iii). Subtraction Roman Numerals;

Numbers with 4 and 9 are subtraction Roman numerals. We write them by subtracting a digit from the standard digit that follows it in the counting sequence.

e.g. 4 = 5 - 1 = IV

40 = 50 - 10 = XL

400 = 500 - 100 = 400

9 = 10 - 1 = IX

90 = 100 - 10 = XC

900 = 1000 - 100 = CM

Note:

* + - To imply subtraction, we write the subtracting Roman digit behind that from which we are subtracting. For example: 40 = 50 - 10 = XL
    - To imply addition we write the adding Roman digit in front that to which we are adding.

For example 60 = 50 + 10 = LX.

* + - When a single Roman digit is written repeatedly, its value is being added.

E.g. CCC = 100 + 100 + 100 = 300.

LESSON 18

Changing from Hindu Arabic to Roman Numerals

1. Write 34 in Roman numerals.

*General principle:*

*When changing from Hindu to Roman numerals, first get the number expanded by value. This will convert the values into the categories above thus repeated, addition, or subtraction categories.*

34 = 30 + 4 (30 - repeated tens and 4 subtraction ones)

= XXX IV

34 = XXXIV

Write 1985 in Roman Numerals.

1985 = 1000 + 900 + 80 + 5

= M CM LXXX V

1985 = MCMLXXXV

Activity:

Write the following in roman numerals.

1. 20
2. 25
3. 64
4. 194
5. 2640
6. 1999
7. 60
8. 40
9. 90
10. 70

Reference:

Func. Mtc. bk 5 pg

MK prim. mtc bk 5 pg 48 - 49

MK Tr’s gd bk 5 pg

LESSON : 19 Changing from Roman to Hindu Arabic.

This also involves first expanding the number before expressing it as a Hindu Arabic numeral. As you split, be sure the digits are independent or are of the type that combine to give a single number. After expanding, write their respective Hindu Arabic equivalents and add them to get a single number.

Let us take some examples;

1. Write CV in Hindu Arabic Numerals

CV C - 100

*Numbers should be in a big to small (descending order) as you compare them downwards. If they are not, combine them.*

V - 5

CV = C + V

100 + 5

CV = 105

2. MDLV M - 1000

*Big to small order*

D - 500

L - 50

V - 5

MDLV = M + D + L + V

= 1000 + 500 + 50 + 5

= 1555

1. Write CXLIX in Hindu Arabic numerals.

CXLIX C - 100

*At any step where the big to small order is not consistent, pair up those digits to form one number during the expansion.*

X - 10

L - 50

I - 1

X - 10

CXLIX = C + XL + IX

= 100 + 40 + 9

CXLIX = 149

1. Express MCCXXII in Hindu Arabic numerals.

MCCXXII M

C

C

X

X

I

I

MCCXXII = M + CC + XX + II

= 1000 + 200 + 20 + 2

= 1222

Activity

Write the following in Hindu Arabic numerals.

* 1. LVI
  2. CLXX
  3. CDXL
  4. DXCV
  5. MCMXLIV

Reference:

MK prim mtc bk 5 pg 51 - 52

Mac Prim mtc bk 5 pg 25 - 26

LESSON : 20

: Rounding off Whole numbers

Rounding off is a way of estimating. We can round off numbers to given place value or to a given number o decimal places (for decimal numbers). After rounding off, we use the symbol (‘*is approximately equal to’* or *‘is nearer to’*) to relate the result and the number rounded off. For example 196 is nearer to 200 we write 196 200.

~

–

~

–

When rounding off to the nearest tens, first locate the digit in the Tens place value and then consider the digit in the ones place value.

When rounding off to the nearest hundreds, first locate the digit in the hundreds place value and then consider the digit in the Tens place value.

Numbers; 0, 1, 2, 3 and 4 are rounded down

Numbers 5, 6, 7, 8, and 9 are rounded up

Examples

Round off 189 to the nearest tens.

|  |  |  |
| --- | --- | --- |
| H | T | O |
| 1 | 8 | 9 |

1 X 10 = 10

180

+ 10

190

\_\_\_\_\_\_\_

Therefore 180 190

2. Round off 47291 to the nearest thousands.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| TTH | TH | H | T | O |
| 4 | 7 | 2 | 9 | 1 |

0 X 1000 = 0000

47000

+0000

47000



Therefore 47291 47000

Activity:

Round off the following to the place value indicated in brackets.

1. 35 (nearest tens)
2. 148 (nearest hundreds)
3. 299 (nearest tens)
4. 7999 (nearest thousands)
5. 453 (nearest hundreds)
6. 8209 (nearest hundreds)
7. 2473 (nearest tens)

Reference:

MK prim mtc bk 5 pg 39 - 40

MK prim mtc Tr’s gd bk 5 pg 39 - 41

LESSON : 21 & 22

TOPIC : OPERATIONS ON NUMBERS

SUBTOPIC : Addition of numbers.

CONTENT :

The main skill underlying addition of numbers is the ability to identify and arrange digits in their respective place values and grouping (carrying).

On the computation side, encourage learners to add by way of keeping the larger digit in the mind count on the smaller number digit cumulatively using their fingers.

Consider:

1. Add 254 + 4784

Arranging vertically;

TH H T O

+ 4 7 8 4

2 5 4

5 0 3 8

1. Willy sold 4593 oranges and Edison sold 1206 oranges in the

market. How many oranges did they sell altogether?

Willy 4 5 9 3 oranges

Edison 1 2 0 6 oranges

+ 5 7 9 9 oranges

Altogether, they sold 5799 oranges.

Activity:

Add :

* 1. 253 + 149
  2. 351+1764
  3. 52+346+13354

1. In Iganga district, there are 624710 males and 715624 females. What is the total population of the district?
2. There are 147 boys and 131 girls in P.% class in Victorious Primary school. How many children are in P.5 class altogether?
3. In Kakiri Primary school there are 96234 maths books and 2842 maths books in Kakindu Primary school. How many maths books do the two schools have altogether?

Reference:

MK prim mtc bk 5 pg 47 - 48

MK prim mtc Tr’s gd bk 5 pg 55 - 56

Underst mtc bk 5 pg 34 - 35.

NOTE:

* Guide learners through common words used in reference
* -Give learners variety of activities involving additions with regrouping

LESSON : 23 & 24

: Subtraction of whole numbers

Alongside the operation sign (-) other expressions such as minus, take away and difference are used to imply subtraction. It is important to get children acquainted with all of them and perhaps how they are used. Emphasis also be put on place value and regrouping while taking account of the base used.

NOTE: Guide learner through common terms used in reference to subtraction

Examples:

1. Subtract 4271 - 2729

*3 10+2 6 10+1*

~~4~~ 2 ~~7~~ 1

- 2 7 2 9

1 5 4 2

2. Subtract 96 from 100

= 100 - 96

3. Find the difference between 49 and 94

Difference = Highest - lowest value

1. - 49

8 10+4

1. 4

- 4 9

4 5

Difference = 45

9

0 ~~10~~ 10

~~1~~ 0 0

- 9 6

0 0 4

1. Reduce 1846 by 694

1846 - 694

7 10+4

1 ~~8~~ 4 6

- 6 9 4

1 1 5 2

1. There are 6975 chairs in Victorious Primary school. Out of these, 1849 are wooden. How many metallic chairs are in Victorious Primary school?

6 10+5

Total = 6 9 ~~7~~ 5

Wooden = 1 8 4 9

Metallic = 5 1 2 6

There are 5126 metallic chairs in victorious .

Activity:

1. 4782 -1250
2. 8024

- 1796

3. Subtract 36 from 100.

4. Take away 91 from 230.

5. Reduce 3000 books by 143.

6. Find the difference between 1479 and 1749.

7. The population of Uganda in 1980 was 12,350,500. If 7,254,619 of them were males, how many males were there?

8. In a school library there were 9617 books. If 2113 books were destroyed by termites, how many books remained?

Reference:

Underst. mtc bk 5 pg 40.

Mac Prim mtc bk5 pg 29 - 30

Func Prim mtc bk 5 pg 52 - 53

NOTE: Give learners variety of word problems involving subtraction of whole numbers

LESSON : 25

: Multiplication of whole numbers.

Consider:

1. 23 × 41 or

4

1

8

2

3

2

0

9

4

3

2

3

Hence 23 × 41 = 943

|  |  |
| --- | --- |
| 0 | 1 |
| 0 | 0 |

2 3

x 4 1

0 2 3

+ 9 2 0

9 4 3

2. A tray of eggs contains 30 eggs. How many eggs are contained in a dozen of trays.

*1 dozen = 12 eggs*

1 2

× 3 0

3 6 0

0 0 0

3 6 0

1 tray contains 30 eggs

12 trays contain (12 × 30) eggs

It contains 360 eggs.

Activity:

1. Work out
   1. 32 14
   2. 53 12
   3. 156 24
2. Find the product of 26 and 12.
3. A bus carries 72 passengers in one trip. How many passengers does it carry in 24 trips?

Reference:

NOTE: Involve learners with variety of activities involving multiplication of whole numbers

LESSON : 26

: Division of whole numbers.

For accuracy in division, each digit must divide independently before combining it with any other(s). There must be an equal number of digits in the quotient as there are in the dividend if you are using the long division approach.

Examples:

1. Divide 192 ÷ 6

0 3 2

)

1 9

- 1 8

1 2

-1 2

192 ÷ 6 = 32

2. Share 4275 books among 9 schools.

Number of schools for each school = 4275 ÷ 9

)

0 4 7 5

9 4 2 7 5

- 0

4 2

3 6

6 7

6 3

4 5

Each school got 475 books

4 5

Activity:

1. 864 ÷ 6
2. 6538 ÷ 8
3. 840 ÷ 10
4. 2170 ÷ 70
5. 5424 ÷ 12
6. There are 340 bags of cement to be offloaded equally by 20 men. How many bags will each man offload?
7. A school has 480 pupils. Each classroom can take 40 pupils. How many classrooms are in the school?
8. A fisherman caught 1050 fish. He is to sell them to 70 fishmongers. How many fish will each one get?

Reference:

Func mtc bk 5 pg 59 - 62

MK prim mtc bk 5 pg 58 - 59

MK Tr’s gd bk 5 pg 62 – 63

LESSON : 27 : Combined Operation on whole numbers.

In the event where we have more than one operation in the same number, we work out following the BODMAS law.

BODMAS - Brackets

Of

Division

Multiplication

Addition

Subtraction

The order of operation in BODMAS indicates the order in which the operations in the expression shall be handled.

Examples:

1. 2 - 9 + 13 - B O D M A S

= (2 + 13) - 9

= 15 - 9

= 6

1. Workout (9 × 9) + 3 - B O D M A S

= 81 + 3

= 84

1. 42 ÷ (7 × 6) + 5 - B O D M A S

= 42 ÷ 42 + 5

= 1 + 5

= 6

Activity:

e) 1 + (3 × 3)

f) 6 ÷ 6 + 2 - 3

g) ¾ of 20 + 15 ÷ 5

Work out:

1. 3 - 7 + 9
2. 3 - 5 + 6
3. 8 + 4 × 5
4. 3 × 4 - 2

Reference:

Func mtc bk 5 pg 56 - 60

MK prim mtc bk 5 pg 63

MK Tr’s gd bk 5 pg 65 - 66

LESSON : 28

Base system

Bases are a system of counting in groups. When we make groups of ten we say we are counting in base *ten,* groups of five - base *five etc.*

Comparing and counting in base *five*

*No. Grouping writing in base five*

3 /// 3 ones 3five

6 ///// / 1 group of fives 1 ones 11five

14 ///// ///// //// 2 groups of fives 4 ones 24five

32 ///// ///// /////

///// ///// ///// // 1 group of five 1 group of fives 2 ones 112five

Place value:

Consider the examples below

a) State the place value of the digits in the number 243five

Ones

Fives

Five fives

2 4 3five

*Note that the place value changes according to the base used*

Activity:

1. group the following and fill in the spaces

*No. Grouping writing in base five*

4 //// 3 ones \_\_+five

9 ///// ///// 1 group of fives \_\_ ones 11five

14 ///// ///// //// \_\_ groups of fives ones \_\_\_five

33 ///// ///// /////

///// ///// ///// /// \_ \_group of five fives \_\_ group of fives \_\_ ones 112five

1. State the place value of each digit in the following numbers
   1. 23five
   2. 321five
   3. 453ten
   4. 101two

Reference:

MK prim mtc bk 5 pg 64

MK Tr’s gd bk 5 pg 66 - 68.

LESSON : 29

Writing whole numbers in decimal base in words

Qn: 1. Write the following numbers in words

i) 43five - four three base five

ii) 4213five – four two one three base five

iii) 1123four - one one two three base four

2. Write four four three base five in figures

4 4 3 five

Activity

1. Write the following numbers in words

a) 100three

b) 2211four

c) 1011two

d) 4112five

2. Write the following numbers in figures

a) Four one two base five

b) one two one base three

c) three three four one base five

d) one three two one base five

LESSON: 30

Values of digits in non decimal base

1. Find the value of each digit in the numbers below.

a) 243five

3 x 1 = 3

4 x 5 = 20

2 x 5 x 5 = 50

Activity

Find the place value of each digit in the number below.

a) 112three  b) 4213five  c) 2013four  d) 1111two

2. Identify the value of the underlined digit in the numbers below.

a) 434five b) 2312four  c) 1423five

3. Find the sum of the value of the underlined digit in the number below

2131four  and 344five

LESSON: 31

: Expanding in Bases in power form.

Although bases may change, the method of expanding remain the same

Except for base ten, other bases are not expanded using values. Trying to expand them in value form will convert it to base ten.

Examples:

1. Expand 321five using place values.

Ones = 1x1

Fives = 2x5

Five fives = 3x5 x5

3 2 1five

321five =

Hence 321five = (3x5x5) + (2x5)+ (1x1)

1. Write 321four in expanded form using powers.

321four

Ones = 1x1 = 1x40

Fours = 2x4 = 2x41

Four fours = 3x4 x4 = 3x42

3 2 1four

321four  = (3x42)+(2x41)+(1x40)

You May also use the short cut

42 41 40

3 2 1

321four =

321four  = (3x42)+(2x41)+(1x40)

*Note that when no base is indicated on the number, that number is taken to be in base ten(Standard base)therefore expand it using powers of ten*

Activity:

1. expand the following using pace values:
2. Expand using powers:
   1. 40five
   2. 111two
   3. 37
   4. 131four
   5. 42five
   6. 231four
   7. 112three
   8. 42

Reference:

MK prim mtc bk 5 pg 71

MK Tr’s gd bk 5 pg 75.

LESSON: 32

: Changing from non-decimal to decimal Base.

When converting a non-decimal to a decimal base (base ten), we shall simply multiply each digit in the given number by powers of the given base then simplify to get the equivalent number in base ten.

Examples:

Change 243five to base ten

52 51 50

3 2 4

324five =

= (3x52)+(2x51)+(1x50)

= (3x5x5) + (2x5) + (4x1)

= 75 + 10 + 4

89ten

Hence 324five = 89ten

Recall: 50 = 1 51 = 5 52 = 5x5

Activity:

Change the following to decimal base (base ten):

1. 33four
2. 13six
3. 412five
4. 100two
5. 25ten
6. 32four
7. 123five
8. 42five
9. 112three

Reference:

MK prim mtc bk 5 pg 71

MK Tr’s gd bk 5 pg 76.

LESSON : 33

: Changing from decimal to non-decimal Base.

Changing from decimal (base ten) to other bases, we divide the given number by the base to which we are changing.

Examples:

Change 52ten to base four.

Base Number

4 52 Remainder

4 13 0

3 1

Hence 52ten = 310four

Activity:

Change to the base indicated in brackets:

1. 34ten(to base five)
2. 16ten (to base four)
3. 20 (to base five)
4. 8 (to base two)
5. 4 (to base five)

Reference:

MK prim mtc bk 5 pg 72

MK Tr’s gd bk 5 pg

LESSON : 34

: Addition in non decimal bases.

The adding in all bases is the same. It is only the grouping that changes. In all addition, be keen on place values.

Consider the examples below:

1. Add

3 2five (*Digits used in base five = 0, 1, 2, 3, 4*)

*2+2 = 4*

*3+1 = 4*

+ 1 2five

4 4five

1. Add: 143five + 232five

Arranging vertically

Ff F O (Base Five = 0, 1, 2, 3, 4)

11 4 3five

3+2 = 5÷5 = 1r0

4+3+1 = 8÷5 = 1r3

1+1+3 = 4

+ 2 3 2five

4 3 0five

Activity:

1. Work out

a) 1 3five c) 1 1 3five

+ 1 1five + 1 0 2five

b) 2 2four d) 4 3ten

+ 1 3four + 1 7ten

2. Add12four + 21four

3. Work out:101two + 111two

Reference:

MK prim mtc bk 5 pg 72

MK Tr’s gd bk 5 pg

LESSON : 35

: Subtraction in non decimal bases.

consider

2. *3 5+2*

~~4~~ 2five

-1 3five

2 4five

4-3 = 1

3-1 = 2

1. 3 4five

2-3 =

5+2 = 7-3 = 4

3-1 = 2

-1 3five

2 1

Activity:

Workout:

1. 2 3five 4. 42 five - 14 five

- 1 2five

1. 4 3 five 5. 132 five

-1 4 five - 114 five

1. 1 0 1 two 6. 300 four

1 0 two  - 122 four

Reference:

MK prim mtc bk 5 pg

MK Tr’s gd bk 5 pg

LESSON : 36

PATTERNS AND SEQUENCES

Types of numbers

1. Whole numbers: This is a sequence of numbers starting from zero “0”

{0, 1, 2, 3, 4, 5, 6, 7, ……………………}

2. Counting numbers; This is a sequence of numbers used in our daily counting. They are referred to as Natural numbers.

{1, 2, 3, 4, 5, 6, ……………………….}

3. Odd numbers; These are numbers that are not completely divisible by 2. They leave a reminder of 1 when divided by 2. i.e. {1, 3, 5, 7, 9, 11, ………………………..}

4. Even numbers; These are numbers that are completely divisible by 2. i.e.

{0, 2, 4, 6, 8, 10, 12, 14, 16, …………………………}

5. Square numbers; These are numbers obtained by multiplying a counting number by itself.

5 x 5 = 25

6 x 6 = 36

7 x 7 = 49

1 x 1 = 1

2 x 2 = 4

3 x 3 = 9

4 x 4 = 16

{1, 4, 9, 16, 25, ………………..}

LESSON: 37

6. Triangular numbers; These are numbers obtained by adding consecutive counting numbers.

0 + 1 = 1

1 + 2 = 3

1 + 2 + 3 = 6

1 + 2 + 3 + 4 = 10

1 + 2 + 3 + 4 + 5 = 15

{1, 3, 6, 10, 15, ……………..}

7. Prime numbers; These are numbers that have only two factors. 1 and the number iself.

F2 {1, 2} {2, 3, 5, 7, 11, ……………….}

F3 {1, 3}

These numbers don’t have a uniform pattern.

8. Composite numbers; These are numbers that have more than one factor. These numbers don’t have a uniform pattern. {4, 6, 8, 9, 10, 12, 14, …………………}

NOTE: One (1) is neither prime nor composite because it has only one factor.

LESSON: 38

Increasing and decreasing order of numbers.

Decreasing order can also be referred to as descending order.

Example;

1. Arrange the following numbers in ascending order.

a) 1, 3, 2, 4, 5, 9, 8, 7, 13, 11, 12, 6

Ascending order

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13

b) 20, 40, 80, 10, 30, 60, 50, 70

Ascending order

10, 20, 30, 40, 50, 60, 70, 80

2. Arrange the following numbers in descending order.

a) 12, 10, 16, 14, 20, 22, 18

Descending order

22, 20, 18, 16, 14, 12, 10

b) 11, 17, 15, 17, 19, 23, 25, 21, 13

Descending order

25, 23, 21, 19, 17, 15, 13, 11

Activity

Arrange the following numbers in ascending order

a) 6, 8, 12, 4, 2, 10, 14, 16

b) 100, 500, 400, 300, 600, 700

c) 35, 20, 30, 25, 45, 55, 50, 40

d) 18, 16, 12, 13, 14, 11, 15

2. James has five sons with ages 12 years, 13 years, 16 years, 20 years and 18 years

Arrange their orders in descending order

3. Arrange the following numbers in descending order.

a) 7, 3, 9, 11, 13, 5, 1

b) 40, 60, 50, 10, 20, 30, 70

c) 500, 600, 100, 200, 400, 300

Designing number patterns

Example

4 , 6, 8, 10, 12, 16, 14, 20



+2 + 2 + 2 + 2 +2 +2

The rule is pick 4 as the first and add 2.

Keep adding 2 the result and continue in that order.

2. 40 , 39 , 37 , 34, 30 , 26, 20



.

-1 -2 -3 -4 -5 -6

Rule;

Pick 40 as the first number and subtract the first number (1) from 40

The subtract 2 from the result and continue in that order subtracting consecutive counting numbers

Activity.

Design four number sequences of your own showing the pattern you have used

LESSON: 39

Completing number sequences

Examples

Complete the following number sequences

1. 10 , 12, 14, 16, 18, \_\_\_\_ , \_\_\_\_

2. 49, 36, 25, 16, 9, 4

72  62  52  42 32  22

OR

 49, 36, 25, 16, 9, 4

-13 -11 -9 - 7 -5

Note: Give learners variety of numbers and encourage them to identify and show the pattern before completing the sequence.

LESSON: 40

: Multiples.

A multiple is a product of a number by any other counting number. For example:

1. List down the first six multiples of 3

3x1 = 3

3x2 = 6

3x3 = 9

3x4 = 12

3x5 = 15 ={3, 6, 9, 12, 15, 18}

3x6 = 18

*You can get the multiples of a given number by writing consecutive counting numbers in patterns of that number whose multiples you are looking for.*

1 3

4 5 6

7 8 9

10 11 12

13 14 15 Hence:

16 17 18 3, 6, 9, 12, 15, 18

Alternatively, we can use repeated addition.

3 6 9 12 15 18

+3 +3 +3 +3 +3

Note:

* + List the first five multiples of 5 for example takes all from the first to the fifth.
  + Listing the multiples of 5 less than 12 includes all multiples of 3 which are less than 3.
  + Listing multiples of 3 between 6 and 21; does not include 6 and those less than 6 and does not include 21 and all those grater than 21.
  + Listing multiples of 5 from 10 to 30 means all starting with 10 and ending with 30

Activity:

1. Write down all multiples of 2 less than 15
2. List down all multiples of 5 from 10 to 40.
3. Write the multiples of 3 between 9 and 36.
4. Write the multiples of 6 which are not greater than 40.
5. List down the first four multiples of 7.

Reference:

MK prim mtc bk 5 pg

MK Tr’s gd bk 5 pg

LESSON : 41

: Lowest common Multiple (LCM).

LCM May also be referred to as Least Common Multiple or Least Common Dividend.

Finding the LCM

1. Find the LCM of 3 and 5

*Method i) by listing multiples of the given numbers*

M3 - {3, 6, 9, 12, ~~15~~, 18, 21, 24, ~~30~~ …}

M5 - {5, 10, ~~15~~, 20, 25, ~~30~~, …}

Common multiples = {15, 30, …}

LCM = 15

Activity:

1. wok out the LCM of the following:
   1. 5 and 10
   2. 6 and 8
   3. 9 and 12
   4. 8 and 9
   5. 5 and 6
2. Find the smallest number which can be divided by 3 and 4 completely

Reference:

MK prim mtc bk 5 pg 80

MK Tr’s gd bk 5 pg 90

LESSON : 42

: Factors of numbers.

A factor is divisor of a number. Another name for a factor is ‘*Divisor*’. When a number is divided by its factor, it leaves a remainder as zero (0). We can literally say that a factor is a number that divides another number an exact number of times.

Examples

a) List down the factors of 8

1x8 = 8

2x4 = 8

4x2 = 8 F8 = {1, 2, 4, 8}

8x1 = 8

Note; 1 is a factor of all numbers and the number itself is its own factor.

1. Set R is a set of factors of 12

F12 = {1, 2, 3, 4, 6, 12}

Set P = 6 members.

Activity:

1. State the factors of :
   1. 16 c) 36
   2. 25 d) 20
2. K is a set of factors of 18.
   * 1. List the members of set K
     2. Find n(K)
3. M is a set of factors of 24

Find n(M

Reference:

MK Prim mtc bk 5 pg 80

MK Tr’s gd bk 5 pg 90

LESSON : 43

: Greatest Common Factor.

Greatest Common Factor (GCF) is also referred to as Greatest Common Divisor (GCD), Highest Common Factor (HCF), Highest common Divisor (HCD)

Consider:

1. Find the GCF of 6 and 12

F6 = {~~1~~, ~~2~~, ~~3~~, ~~6~~}

F12 = {~~1~~, ~~2~~, ~~3~~, 4, ~~6~~, 12}

C.F = {1, 2, 3, 6}

GCF = 6

Activity:

Find the HCD of the following:

1. 8 and 12
2. 4 and 6
3. 9 and 18
4. 12 and 24
5. 27 and 36

Reference:

MK Prim mtc bk 5 pg 80

MK Tr’s gd bk 5 pg 90

LESSON : 44

: Prime factorization.

Prime factorization is a way of expressing numbers in terms of their prime factors. The factors can be expressed in product form, subscript, or superscript form.

Consider the examples

Prime factorise 12 and write the factors in the three different forms.

2 12 or 12

2 6

2

6

3

2

3

1

3 3

1

i) In product form,

12 = 2 x 2 x 3

ii) In subscript form,

F12 = {21, 22, 31}

iii) Power form

12 = 22 x 31

Note: When prime factorizing we use prime factors only.

The factors used are always the prime factors of the given numbers.

Activity:

Prime factorise the following and write the factors as instructed in brackets:

1. 4 d) 8
2. 18 e) 20
3. 21 f) 32
4. 40 g) 49

Reference:

MK Prim mtc bk 5 pg 85

MK Tr’s gd bk 5 pg 94

Mac. Prim mtc 65

LESSON : 45

Representing prime factors on venn diagram

Example

1. Show the prime factors of 12 and 18 on the venn diagram

- Prime factorise the given numbers

|  |  |
| --- | --- |
| 2 | 12 |
| 2 | 6 |
| 3 | 3 |
|  | 1 |

|  |  |
| --- | --- |
| 2 | 18 |
| 3 | 9 |
| 3 | 3 |
|  | 1 |

* Write the prime factors as shown below

F12 = {21, 22, 31} F18= {21, 31, 32}

* Identify the common factors and resent them on the venn diagram

F12  F18

21

31

32

22

Activity

Show the prime factors of the following pairs of numbers on the venn diagram

a) 24 and 36 b) 12 and 16 c) 30 and 40

2. Study the venn diagram below and use it to answer the following questions

F48

F36

23 24

21 22

31

a) Identify the prime factors of 36 and 48 on the venn diagram above

b) Find the elements of F36nF48  from the venn diagram above

c) Write the elements of F36UF48 on the venn diagram above

LESSON : 46

LCM and GCF using the venn diagram

Example

Use the venn diagram below to answer the following questions

F12 F24

22

21 22

31

a) Find the GCF of 12 and 24 from the venn diagram

GCF is got from the venn diagram by finding the product of the factors in the intersection region i.e.

F12nf24 = {21, 22, 23}

GCF = 2 X 2 X 3

GCF = 12

b) Find the LCM of 12 and 24 from the venn diagram

LCM is got from the venn diagram by finding the product of the prime factors in the union set.

F12UF24 = {21, 22, 23, 3}

LCM = 24

Activity

1. Given that 48 and 24 are whole numbers

a) Prime 48 and 24 and represent the prime factors on the venn diagram

b) Use the venn diagram to find LCM of 48 and 24

c) Find GCF/HCF of 48 and 24 using the venn diagram above

2. Use the venn diagram below to answer the following questions

F54 F60

21 31

32 33

22 51

a) Find the GCF of 54 and 60

b) Find the LCM of 54 and 60

LESSON 47

LCM and GCF using prime factorization without venn diagram

Example

a) Find the GCF of 8 and 12

|  |  |  |
| --- | --- | --- |
| 2 | 8 | 12  LCM = 2 X 2 X 2 X 3  LCM = 12 X 3  LCM = 36 |
| 2 | 4 | 6 |
| 2 | 2 | 3 |
| 3 | 1 | 3 |

Activity

1. Find the GCF/HCF of the following numbers.

a) 9 and 12 b) 27 and 36 c) 12 and 24 d) 25 and 20

e) 5 and 6 f) 8 and 9 g) 6 and 8

LESSON : 48

: Squares and square roots.

Square numbers:

A square is a product of two equal numbers. The square of 4 (which is written as (42) = 4 x 4 = 16.

Square of 4 = 16

1. Find the square of 25

2 5

× 2 5

5 0 0

+1 2 5

6 2 5

Square of 25 = 252

= 25 x 25

= 625

Square of 25 = 625

Activity:

Workout the square of the following:

1. 24
2. 23
3. 9
4. 19
5. 39

Reference

MK Prim mtc bk 5 pg 92

MK Tr’s gd bk 5 pg 95 - 96

Func mtc bk 5 pg 72

LESSON : 49

: square roots.

square root: this is also taken as ‘the second root of …’ Square root is a number that multiplies itself only twice to give a square number. The symbol √ is used to stand for;

‘*the square root of’*

Consider:

1. find the square root of 16
   1. 16
2. 8 √16 = 2x2x2x2
3. 4 = 24÷2
4. 2 = 22

1 = 2x2

= 4

√16 = 4

Note: when looking for the square root (second root); prime factorize the number, write the factors in power form and then divide the indice by two.

It also follows that *Cube root (the number that multiplies itself three times to give a cube number),* we prime factorise, write factors in power form and divide indice by three.

1. Find the square root of 36

√36 = 2 36

2 18 √36 = 2x2x3x3

3 9 = 22x32

3 3 = 22÷2 x 32÷2

1 = 21 x 31

= 2 x 3

= 6 √36 = 6

Since the pattern for square numbers is by adding consecutive odd numbers, we can get the square root also by subtracting the consecutive odd numbers until we get zero.

Consider:

Find the square root of 49

√25 = 25 - 1 = 24

24 - 3 = 21

21 - 5 = 16

16 - 7 = 9

9 - 9 = 0

The number of times we have subtracted will give us the square root of that number.

Hence √25 = 5

Activity:

1. Find the square root of the following:

* 1. 9 c. 81
  2. 64 d. 4
  3. 49

1. Find the second root of 144.
2. Which number multiplies itself twice to give 16?

Reference

MK Prim mtc bk 5 pg 92

MK Tr’s gd bk 5 pg 95 - 96

Func mtc bk 5 pg 72

TERM TWO

Topic: Fractions

Lesson one

Sub topic: Types of fractions

Content:

* Proper fractions (numerator is less than the denominator ½ )
* Improper fractions (denominator is less than the numerator 4/3 )
* Mixed fraction (vulgar fractions) includes a whole number and a proper fraction)
* Decimal fractions (numbers with a point)
* Expressing improper fraction as mixed fraction
* Expressing mixed fraction as improper fraction

Example

Express13 as a mixed number

2

13

2

6 1

2

Express 23 as a mixed number

7

23

7

3 2

7

Evaluation activities

Exercise 6.1 page 116n New Mk bk 5

Topic: Fractions

Sub topic: Equivalent fractions

Content: examples

½ = 2/4 = 3/6 = 4/8

2/3 = 4/6 = 6/9 = 8/12

Activity 6.3 page 117 New mk bk 5

5d page 120 old Mk bk5

Topic : Fractions

Sub topic: Reducing fractions

Content: Example

Reduce 12/24 to its lowest terms Express 6/8 in its lowest term

6/8 = 3/4

12/24 = 1/2

Activity

Exercise 6.4 page 118 New Mk Bk 5

Exercise 3a page 122 Old Mk Bk5

Topic :Fractions

Sub topic: Ordering fractions

Content: Using ascending and descending order

Examples : arrange1/3,1/2 and 1/4 in ascending order

LCM = 12

1/3x12=4, 1/2x12=6 , 1/4x12=3.

In ascending order ¼ , 1/3 , ½

In descending order ½ , 1/3 , ¼

Activity

Exercise 6:5 page 119 New Mk Bk 5

Exercise 5g page 125 Old Mk Bk 5

Topic : Fractions

Sub topic: Comparing fraction using symbols

Content: >, <, or =

Examples which is greater 1/3 or ¼ ?

LCM of 3 and 4 = 12

1/3x12=4, 1/4x12=3

4(greater) 3 (less)

Activity

Exercise 6:6 page 120 New Mk bk 5

Exercise 5h page 126 Old Mk Bk 5

Topic :Fractions

Sub topic: Addition of fractions

Content: Different denominations

Examples: Add 2/3 +1/5 Work out :3/5 + 1/6

LCM is 30

3/5 + 1/6 = 18 + 5

LCM is 15 30

2/3 +1/5=10 +3

15 = 23/30

= 13

Activity 15

Exercise 6:7 page 121 New Mk Bk 5

Exercise 5i page 127 Old Mk Bk 5

Topic : Fractions

Sub topic: Addition of whole numbers and fractions

Content: Examples:5+3/4 Simplify:1/2 + 2/3 + 7

LCD = 4 ½+2/3 = (3+6)/6

5/1+3/4=20+3

4 =9/6 (1+7)1/2

= 23/4 =1 3/6 8 1/2

= 5 ¾ =1 1/2

Activity

Exercise 6:8 page 122 New Mk Bk 5

Topic : Fractions

Sub topic: Addition of mixed numbers

Content: Examples

½ + 3 ¼

3 + (½ + ¼)

3+ 2+1

4

3 3/4

Activity

Exercise 6:10 page 123 New Mk Bk5

Topic : Fractions

Sub topic: Word problems involving addition of fractions

Content: Example

John filled ½ of a tank in the morning and 2/5 in the afternoon. What fraction of the tank was filled with water?

½+2/5=5+4

10

= 9/10

Activity

Exercise 6:12 page 125 New Mk Bk5

Exercise 5n page 131 Old Mk Bk5

Exercise 4 page 58 Oxford Pr. MTC Bk5

Topic :Fractions

Sub topic: Subtraction of fractions

Content: Different denominators

Examples: Subtract 5/6-2/3 Work out : ¾-1/2

LCM is 6 LCM is 4

5/6-2/3= 5-4

6 ¾-1/2=3-2

= 1/6 4

Activity =1/4

Exercise 6:13 page 126 New Mk Bk5

Exercise 3:5 page 64 Understanding MTC Bk5

Exercise 5 Page 5a Oxford Pr. MTC Bk5

Topic : Fractions

Sub topic: Subtraction of fraction from whole numbers

Content: Examples

Subtract 5 – ¾

LCM is 4

5-3/4=20-3

4

=17

4

=41/4

Activity

Exercise 6:13 page 126 New Mk Bk5

Exercise 3:11 page 70 understanding MTC Bk5

Topic : Fractions

Sub topic: Subtraction of mixed fractions

Content: Examples; Subtract 4 2/3 - 2 1/2

4-2+4-3

6

2 1/6

Work out 5½-41/2

11/2-9/2=11-9

2

= 2/2

= 1

Activity

Exercise 6:13 page 126 New Mk Bk5

Topic : Fractions

Sub topic: Word problems in subtraction of fractions

Content: Examples

A baby was given 5/6 litres of milk and drunk only 7/12litres. How much milk remained?

5/6-7/12

LCM is 12

5/6-7/12=10-7

12

=3/12

=1/4

Activity

Exercise 6:14 page 127 New Mk Bk5

Exercise 5 page 134 Old Mk Bk5

Topic : Fractions

Sub topic: Combined addition and subtraction of fractions

Content: Example

1. Workout:1/2+1/3-1/4 2.Simplify :2/3-1/2+1/3

LCM is 12 4+2-3

6

(6+4)-3

12 (6-3)/6

10-3

12 3/6

7/12 1/2

Activity

Exercise 6:15 page 128 New Mk Bk5

Exercise 5p page 136 Old Mk Bk5

Topic : Fractions

Sub topic : Multiplication of whole numbers and fractions

Content: Using repeated addition (number line)

Using factor

Example multiply 4 x ½ = 2

4/1 x ½

2 x 1 ½ ½ ½ ½

1 x 2 = 2

0 ½ 1 1 ½ 2 2 ½ 3

Activity

Exercise 6:16 page 129 New Mk Bk5

Exercise 5r page 137 Old Mk Bk5

Exercise 3:19 page 77 Understanding MTC Bk5

Topic : Fractions

Sub topic: Multiplication of fractions by whole numbers

Using “of”

Example simplify: ½ of 16

½ x 16 = 8

What is 2/3 of 60 goats ?

2/~~3~~1 x ~~60~~20=2x20

= 40 goats

Jane ate 2/7 of her bread which had 21 slices together with the brother in the morning .How many slices of bread did they eat ?

2/~~7~~1 x ~~21~~3=2x3

= 6 slices

Activity

Exercise 6:18 page 130 New Mk Bk5

Topic : Fractions

Sub topic : Multiplication of unit fractions.

Content: Example

a)½ x ¾

1 x3

2 x4

3/8

b)2/5 x 1/2

~~2~~1 x 1

5 x ~~2~~1

1/5

Application of fractions

1.What is ¼ of 1hour? 2. Find 3 ¾ 0f 2kg

1hr = 60min 1kg = 1000g

¼ x 60min 2kg =2000g

= 15min =16/4 x ~~2000~~g500

=16 x 500g

=8000g

ACTIVITY

Exercise 6:19 and 6:20 page 131 New Mk Bk5

Exercise 621 page 132 New Mk Bk5

Topic : Fractions

Sub topic: Multiplication of mixed fraction by mixed fraction

Examples

1 ½ x 1 ¼

3/2x5/4=3x5

2x4

= 15

8

1 7/8

Activity

Exercise 5r part e page 138 Old Mk Bk5

Topic : Fractions

Sub topic: Division of fractions

Content: Reciprocals of whole numbers

Example

Find the reciprocal of

1. 2: Let the reciprocal be k

2 x k = 1

2K = 1/2

2

K = 1/2

1. ¼: Let the reciprocal be y

1/4 x y =1

y x 4 =1x4

4

y =4

Note: Reciprocal is used instead of upside down

Activity

Exercise 6:22 page 133 New Mk Bk5

Exercise 5u page 141 Old Mk Bk5

Topic : Fractions

Sub topic: Division of whole numbers by fractions

Content: Examples

1. Workout using reciprocal 2÷2/3

2/1÷2/3=2/1x3/2

=~~2~~x3

1x~~2~~

=3/1

=3

1. 5÷1/2

5/1÷1/2=5x2

1x1

=10/1

=10

Activity

Exercise 6:23 page 134 New Mk Bk5

Topic : Fractions

Subtopic: Word problems

Content: examples

* How many ¼ loaves of bread can be got from 3 loaves of bread?

3÷1/4=3x4

1x1

=12/1

=12

* Using LCM and LCM = 4

(3x4) ÷1/4x4)=12÷1

=12

Activity

Exercise 6:26 page 136 New Mk Bk5

Exercise 5z page 144 Old Mk Bk5

Topic : Fractions

Sub topic: Division of fractions by whole numbers and vice versa

Content: example

1. Divide 3/4÷5

3/4÷5/1=3x1

4x5

= 3/20

1. Workout :2/3÷1/2

LCM is 6

2/3x6 ÷ 1/2x6

4÷3

1 1/3

Activity

Exercise 6:27 page 138 New Mk Bk5

Exercise 6:23/6:24 pages 134 to 135 Bk5

Topic : Fractions

Sub topic: Division of mixed numbers

Content: Example

Workout:2 ½ ÷ 1 2/3

2 ½ = 5/2 1 2/3 = 5/3

5/2x6 ÷ 5/3x6

15÷10

1 5/10= 1 1/2

Activity

Exercise 5y page 144 Mk Bk5 (Old edition)

Teacher’s collection (see bk6)

TOPIC

Sub top: Simple mixed operations on fractions

We use BODMAS to work out numbers with more than one operation

B – Brackets

O – Of

D – Division

M – Multiplication

A – Addition

S – Subtraction

Examples

* + 1. Work out: 2/3 of ½ + ¼ ( BODMAS )

(2/3 of ½) + ¼

(2/3 x ½) + ¼

2/6 + ¼ = (2x2) + (3x1)

12

=4+3

12

= 7

12

* + 1. Simplify: 2/3 – ½ x 1/3 (BODMAS )

2/3 – (½ x 1/3) = 2/3 – 1/6

= (2x2) – (1x1)

6

= 4 - 1

6

= 3

6

= ½

ACTIVITY

Work out the following correctly.

* 1. 1/3 x ¼ + ½
  2. 3/5 – 1/3 of ½
  3. 1 2 + 1/3 ÷ ½

3

TERM II

**LESS ON 1**

**Converting common fractions to decimals**

**Examples**

1. Change to a decimal 2. Convert to a decimal.

= 0.2 1 ÷ 5 = 0 = 0.3 3 ÷ 10 = 0

5 10 10 ÷ 5 = 2 10 30 30 ÷ 10 = 3

2 x 5 = 10 10x3 30

00 00

= 0.2 = 0.3

**NB:**

A fraction with denominator ten, gives one decimal place i.e = 0.1

A fraction with denominator hundred, gives two decimal places ie. = 0.03

**ACTIVITY**

Change the following fraction to decimals

i) ii) iii) iv) ½ v)

vi) vii) viii) ix) x)

**LESSON 2**

**Changing mixed numbers to a decimal**

**Examples**

1. Covert 2 to a decimal.

2 = 2 + 2.0

2 + 0.1 + 0.1

2.1

2. Express 7

= 7.5 (1 zero on a denominator, gives one decimal place)

**ACTIVITY**

a) 3 b) 8 c) 27 d) 9 e) 5

**LESSON 3**

Converting decimals to common fractions.

**Examples:**

1. Change 0.7 to a common fraction.

0.7 =

2. Express 0.49 as a vulgar fraction.

0.49 = 49

100

3. Betty had string of length 2.7cm. Express the length of the string as a vulgar fraction.

2.7cm = 2cm. (1 decimal place, gives one zero on a denominator)

**ACTIVITY**

Express the following decimals as common fraction.

a) 0.1 b) 0.03 c) 9.8 d) 64.7 e) 6.75

**LESSON 4**

Finding values of each digit on decimals.

**Examples**

1. Find the value of each digit on the numbers below;-

a) 0.267

0.267

Thousandths 7 x = = 0.007

Hundredths 6 x = 0.06

Tenths 2 x = 0.2

**ACTIVITY**

**Find the value of the underlined digits**

1) 2.46 2) 0.374 3) 74.219 4) 0.536 5) 127.827

**LESSON 5**

1) Place values of decimals

**Illustration**

49.374

Thousandths

Hundredths

Tens Tenths

Ones

2) Writing decimals in words

**Examples**

a) Write 0.7 in words

i) 0.7 = zero point seven

or

ii) 0.7 = seven tenths

b) Write 23.08 in words

i) 23.08 = Twenty – three point zero eight

OR

ii) 23.08 = Twenty – three and eight hundredths

3. Writing words in decimals.

**Examples**

1. Write zero point nine in figures.

0.9

2. Write forty and sixty-eight hundredths in figures.

40.00

+ 0.68

Forty = 40

Sixty-eight hundredths = 0.68

**ACTIVITY**

**Write the words in figures**

i) Zero point seven

ii) Zero point one two

iii) Two and six tenths

iv) Thirty-nine point three four

v) Nine point four nine

vi) Seven and six hundred ninety two thousandths

**LESSON 6**

Expanding decimals

1) Using place values

**Examples**

1. Expand 3.24 using place values

|  |  |  |  |
| --- | --- | --- | --- |
| 0 |  | tth | thth |
| 3 | . | 2 | 4 |

GROUP WORK

Expand the following using place values.

a) 4.2

4 x b) 23.57

c) 7.439  
 3x1 2 x

(3 x 1) + (2 x ) + (4 x )

ii) Using values

Expand 3.24 using values GROUP WORK

|  |  |  |  |
| --- | --- | --- | --- |
| 0 |  | tth | thth |
| 3 | . | 2 | 4 |

Expand the following using values.

a) 4.2

4 x = = 0.04 b) 23.57

3x1 =3 2 x = = 0.2 c) 7.439

3 + 0.2 + 0.04

**LESSON 7**

Expanding decimals using powers.

**Examples**

1. Expand 23.479 using powers of base 10.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Powers | 101 | 10o |  | 10-1 | 10-2 | 10-3 |
| Digits | 2 | 3 | . | 4 | 7 | 9 |

(2x101) + (3x10o) + (4x10-1) +(7x10-2) (9x10-3)

**DISCUSSION**

2. Expand 4.89 using powers of base 10.

**ACTIVITY**

Expand the following decimals using powers of base 10.

a) 9.24 b) 37.649 c) 948.3 d) 576.394

**LESSON 8**

Comparing decimals using symbols i.e< ,> or =

**Example**

**Use < ,> or + to compare the statements below;**

i) 0.3 < 0.5

**ACTIVITY**

Use < ,> or = to compare the statements below

a) 0.6 \_\_\_\_\_\_\_\_\_\_\_\_\_ 0.1

b) 1.0 \_\_\_\_\_\_\_\_\_\_\_\_ 0.9

c) 0.2 \_\_\_\_\_\_\_\_\_\_\_\_ 0.7

d) 0.8 \_\_\_\_\_\_\_\_\_\_\_ 0.9

e) 0.6 \_\_\_\_\_\_\_\_\_\_\_ 1.6

f) 0.1 \_\_\_\_\_\_\_\_\_\_\_ 1.0

**LESSON 9**

Ordering decimals

**Examples**

1. Arrange 0.1 , 0.4 , 0.7 , 0.5 and 0.6 in an ascending order.

, ,

0.1 , 0.4 , 0.5 . 0.6 , 0.7

2. Arrange 0.2 , 0.17 , 0.07 and 0.3 in a descending order.

LCM = 100

0.2 = x 100 = 2 x 10 = 20

0.17 = = 100 = 17 x 1 = 17

0.07 = x 100 = 17 x 1 = 17

0.3 = x 100 = 3 x 10 = 30

0.3 , 0.2 , 0.17 , 0.07

**ACTIVITY**

Arrange the decimals below;-

a) 0.1 , 0.3 , 0.4 (in descending order)

b) 0.13 , 0.23 , 0.27 , 0.31 (in descending order)

c) 0.4 , 0.2 , 0.6 (in ascending order)

d) 0.2 , 0.19 , 0.02 , 0.7 (in ascending order)

**LESSON 10**

Addition of decimals

**Examples**

1. Add: 0.7 2. A tailor used 21.23m of a cloth to make a shirt

+ 0.2and 43.36m to make a pair of trousers.

0.9 How many metres did the tailor use?

21.23m

43.36m

64.59metres

3. Add 0.72 to 91

91.00

+0.72

91.72

**ACTIVITY**

1. Add: 1.7 + 2.2

2. Work out: 0.45 + 13.2 + 5.2

3. Add: 0.7 to 3

4. John used 0.2 litres of water in the morning and 4.9 litres in the afternoon. How much water did he use altogether?

5. Nalule is 4.2ft tall, her sister Ann is 3.6ft and the brother is 2.7ft tall. Find the total height of the 3 children.

**LESSON 11**

**Subtraction of decimals**

**Examples**

1. Subtract 13.6 from 97.8

97.8

- 13.6

84.2

2. Subtract 0.7 from 2.

2.0

- 0.7

1.3

**Activity**

**Work out**

1) 7.6 – 4.2

2) 19.1 – 2.7

3) Subtract 0.9 from 4

4) Subtract 11.11 from 34.7

5) A tank was 493 .27 litres of water full.A family used 102.19 litres. How much water remained in the tank?

**LESSON 12**

**Mixed operation of decimals**

**Examples**

1. Work out: 8.24 + 1.42 – 2.04 2. Work out: 5.62 – 8 + 4.37

8.24 5.62

+ 1.42 + 4.37

9.66 9.99

- 2.04 - 8.00

7.62 1.99

**Try these:-**

Work out the following;-

a) 6.8 + 0.2 – 4.2 b) 16.25 – 6.5 + 4.00

c) 14 – 5.26 + 7.02 d) 20.02 + 14.1 – 13.83

e) 12 – 0.75 + 0.75

**LESSON 13**

**Multiplication of decimals.**

**Examples**

1)Multiply: 0.2 x 0.3 2) 0.4 x 0.3

x = = =

= 0.06 = 0.12

**Try these;-**

**Multiply the following decimals**

a) 0.1 x 0.7 b) 0.2 x 0.8 c) 0.6 x 0.2

d) 0.3 x 0.9 e) 2 x 0.7 f) 1.2 x 0.6

g) 2.3 x 1.4 h) Find the product of 3.2 and 2.4

i) What is 2.1 of 0.3

**LESSON 14**

**Division of decimals**

**Examples**

1. Divide 0.6 by 0.2 2. Work out 2.4 ÷ 0.3

0.6 ÷ 0.2 = ÷ 2.4 ÷ 0.3 =

=

= 3 x 1 = 8 x 1

= 3 = 8

**ACTIVITY**

Work out the following;

a) 0.9 ÷ 0.3 b) Divide 3.6 by 0.4

c) How many pieces of 0.5m can be cut from 3.5m of a cloth.

d) Find the quotient of 4.2 and 0.6

**LESSON 15**

**TOPIC:Lines , angles and geometrical figures.**

**SUBTOPIC: Lines**

**CONTENT: Types of line**

i) Straight line \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ii) Dotted lines ----------------------------------------------------

iii) Zigzag line

iv) Parallel lines

v) Perpendicular

b) Drawing line segments.

i) Draw a line segment AB measuring 7cm.

A 7cm B

**ACTIVITY**

Using a ruler and a pencil, draw the following line segments.

a) MN = 6cm b) PR = 4.5cm c) WY = 7.3cm

2. Measure the following line segments.

i) ii)

iii) iv)

**LESSON 16**

**Content: Constructing parallel and perpendicular.**

a) Constructing parallel lines.

B A

D C

Line AB is parallel to CD

b) Perpendicular lines.

c) Bisecting lines

K M

**LESSON 17**

**Content: Angles**

An angle is the amount of opening.

Angles are drawn and measured using a protractor

The units of angles are degrees.

**Types of angles**

|  |  |  |
| --- | --- | --- |
| **Type** | **Description** | **Examples** |
| Acute angles | Angles below 90o | 20o , 30o , 45o , 89o |
| Right angle | Measures 90o | 90o |
| Obtuse angles | Greater than 90o but below 180o | 91o , 120o , 135o , 150o, 179o |
| Straight angle | Measures 180o | 180o |
| Reflex angles | Greater than 180o but below 360o | 185o , 215o , 260o, 290o , 350o |
| Angle at the point | Measures 360o | 360o |

ii) Drawing angles using a protractor.

Use a ruler and a protractor to draw the following angles.

a) 30o b) 75o c) 90o d) 150o

e) 135o f) 180o h) 360o

**LESSON NOTES**

**Content:** Measuring and bisecting angles.

Measure the following angles using a protractor.

a) b)

c) d)

ii) Bisecting angles

a)

**GROUP WORK**

Bisect the following angles.

i) ii)

iii) iv)

**LESSON 19**

**Content:** Constructing special angles.

Using a pair of compasses, ruler and a pencil only, construct the following angles.

a) 90o

90o

b) 45o/135o

45o 135o

c) 60o / 120o

60o 120o

**Activity**

**Use a pair of compasses, ruler and a pencil to construct angles below.**

i) 90o ii) 30o ii) 60o iii) 45o iv) 150o

**LESSON 20**

**Content: Finding missing angles.**

**Work out the value of the unknown angles.**

a)

Y + 58o = 90o

Y + 58o – 58o = 90o – 580

Y Y= 90o – 58o

58o Y = 32o

b) b) 60o

35o X 47o P

X + 35o + 90o = 180o P + 47o + 60o = 180o

X + (125o) = 180o P + 107o = 180o

X + 125o – 125o = 180o – 125o P + 107o = 180o – 107o

X = 180o – 125o P = 180o – 107o

X = 55o P = 63o

**Activity;**

Find the size of the missing angles.

W 55o M

25o

73o 55o g

35o

50o P X

**LESSON 21**

**Content: Group of angles**

i) Complementary angles

A pair of angles (two angles) with the sum of 90o.

Each is the complement of the other.

a) Y and 20o are complementary angles. Find the value of Y?

Y + 20o = 90o

Y + 20o – 20o = 90o – 20o

Y = 90o – 20o

Y = 90o – 20o

Y = 70o

b) K and 20o are complementary angles. Find the value of K.

ii) Supplementary angles

Two angles with the sum of 130o.

**Examples:**

1. Given that y and 100o are supplementary angles.

Find the value of y.

Y + 100o = 180o

Y + 100o – 100o = 180o – 100o

Y + 0 = 80o

Y = 80o

2. If 2m and 80o are supplementary angles. Find the value of m.

**LESSON 22**

**Content: Circles**

i) Parts of a circle

P Name parts labeled.

M i) SK is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

S ii) GM is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

R iii) RP is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

G K iv) Point S \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

ii) Finding diameter of a circle.

a) If SK is 7cm, find the length of GM.

GM = GS + SM Diameter = r + r

= 7cm + 7cm OR = 7cm + 7cm

= 14cm = 14cm

iii) Finding radius of a circle.

Given that the diameter of a circle is 14cm, calculate its radius.

Radius =

=

= 7cm

**Activity,**

**1. Complete the table below;**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Radius** | 6cm | 10cm | \_\_\_ | \_\_\_\_ | 7.5cm |
| **Diameter** | \_\_\_\_ | \_\_\_\_ | 8cm | 16cm | \_\_\_ |

2. The diameter of a bicycle wheel is 18cm. Find its radius.

**LESSON 23**

**Content: Constructing circles**

**Examples**

1. Use a pair of compasses, ruler and a pencil only, construct a circle whose radius is 3cm.

3cm

2. Constructing a circle whose diameter is 8cm.

Radius =

= = 4cm

4cm

**Activity;**

1. Constructing the circles with the given radius.

a) 2cm b) 3.5cm c) 2.7cm

2. Use the given diameter below to construct circles.

i) 6cm ii) 5cm iii) 4.4cm

3. Construct a circle whose radius is 3.2cm

**LESSON 24**

**Content: Constructing regular hexagons**

**Example: Using a pair of compasses, a pencil and a ruler only, construct a regular hexagon in a circle whose radius is 4cm.**

4cm

GROUP WORK

1. Use a pair of compasses, a pencil and a ruler only, construct a regular hexagon in a circle whose radius is 4.5cm.

2. Constructing a regular hexagon in a circle whose diameter is 6cm.

**LESSON 25**

**Content: Constructing triangles**

**Types of triangle**

Scalene triangle

Isosceles triangle

Equilateral triangle

a) Scalene triangles

These are triangles with different sides.

Illustration

6cm 7cm

9cm

Use a pair of compasses, a ruler and a pencil only, construct a triangle ABC where AB = 9cm, BC =7cm

**Sketch** C

C

6cm 7cm

6cm 7cm

A 9cm B

A 9cm B

**Activity:**

Use a pair of compasses, ruler and a pencil only, construct a triangle WXY where WX = 8cm, XY = 6cm and WY = 7cm.

**LESSON 26**

**Constructing an Isosceles.**

**An isosceles triangle has two sides equal illustration.**

Illustration

6cm

7cm

Use a pair of compasses, ruler and pencil only, construct a triangle MNK where MN = 7cm

MK = NK = 6cm

Sketch

K

6cm K

M 7cm N

M 7cm N

**TEAM WORK**

1. Use a pair of compasses, ruler and pencil only, construct a triangle STU where ST = 9cm, SU = TU = 7cm.

2. Using a ruler, pair of compasses and pencil only construct a triangle PQR where PQ = 8cm, PR = QR = 6cm.

b) Calculate its perimeter.

**LESSON 27**

**Constructing Equilateral triangle.**

**An equilateral triangle has all the three sides equal.**

Illustration

6cm

1. Use a pair of compasses, ruler and pencil only, construct an equilateral triangle ABC whose sides are 6cm.

Sketch

C C

A 6cm B

A 6cm B

2. Use a pair of compasses, ruler and a pencil only, construct an equilateral triangle on a circle whose radius is 4cm.

4cm

**LESSON 28**

**Content: Constructing a square**

A square has all sides equal with right angles.

**Example:**

Using a pair of compasses, a ruler and a pencil only construct a square, PRQS whose side is 6cm.

Sketch

S Q S Q

6cm

P R

P R

6cm

**Activity**

Use a pair of compasses, a ruler and a pencil only to construct squares measuring.

a) 4cm b) 7cm c) 5.5cm d) 3.5cm

**LESSON 29**

**Content: Constructing a rectangle**

**Materials**

- A pair of compasses

- A ruler

- A pencil only

**Example:** Construct a rectangle ABCD measuring 6cm by 4cm using a pair of compasses, ruler and pencil only.

Sketch

D C

A 6cm B

D C

4cm

A 6cm B

**Activity:**

i) Using a pair of compasses, a pencil and a ruler only, construct a rectangle WXYZ measuring 7cm by 5cm.

ii) Find the distance around the figure above.

iii) Calculate its area.

**LESSON 30**

**Content: Describing lines of folding symmetry**

**Example:** How many lines of folding symmetry have the figures below.

a)

Therefore a square has 4 lines of folding symmetry.

4

1 2 3

b)

2 Therefore letter x has 2 lines of folding symmetry.

1

c)

A semi circle has 1 line of folding symmetry.

d) A kite has 1 line of folding symmetry.

**Activity**

How many lines of folding symmetry have the figures below.

K

C

**LESSON 31**

**Content: Rotation**

**Rotation is also referred to as a revolution or a turn.**

**A complete turn measures 360o**

**Example:**

1. How many degrees are in a half turn?

½ of 360o

½ x 360o

1 x 180o = 180o

2. Musana made of a turn. How many degrees did he turn?

Musana made of 360o

= x 360o

= 2 x 120o

= 240o

**Activity:** 1. How many degrees are in the following turns?

a) ¼ turn b) turn c) turn

2. How many degrees did Katongole make in 2 complete turns?

**LESSON 32**

**CONTENT: Compass direction**

**NW**  N **NE**

45o

45o

45o

45o

45o

45o

45o

45o

**W E**

**SW S SE**

Movements on a compass direction.

Clockwise Anti clockwise

N N

W E W E

S S

**Examples.**

a) Betty was facing south and turned 90o clockwise. Find her new direction.

N

W E Betty’s new direction is west.

45o

45o

S Betty

b) Calculate the angle between north and southwest anti clockwise.

NW N NE

45o

45o

45o

45o

45o

45o

45o

45o

<btn north and SW = 45o + 45o + 45o

W E

SW S SE

**Ref: Mk Prim MTC pg 191 – 192**

**LESSON 33**

**Topic: Data handling**

**Subtopic: Statistics**

i) Median

A mark that lies in the middle

It can be obtained after arranging the given data in either ascending or

descending order.

a) Mwesigwa scored the following marks in a series of mathematics test.

30 , 50 , 45 , 60 and 47

Find his median mark.

Median mark = 30 , 45 , 47 , 50 , 60

47

= 47

b) Apio attained the following marks in a series of homework pieces given during the week.

4 , 5 , 3 , 7 and 8 and 7

Work out her median mark.

Median mark = 3 , 4 , 5 , 7 , 6 , 7 , 8

= 5 + 7

2

= 12

2

= 6

**ACTIVITY**

1. Primary five streams sent children for a reading competition as shown below.

Stream Active Bright Wise Clever Sharp

No. of children 6 4 7 8 3

Find the median number of children sent for a reading competition.

2. The number of absentees in primary five class was recorded as shown below.

10 , 16 , 5 , 20 25 , 10

Calculate the median number of absentees

3. A baby class recited the alphabet as follows;

A , c , d , b , e

Which letter lies in the middle?

4. Kagimu scored the following marks.

90 , 87 , 91 , 77 , 69 , 70 and 95

Find his median mark.

**LESSON 34**

**Content: Range**

Range is the difference between the highest and lowest score.

Range = Highest number – Lowest number

**Examples**

1. If Kapere scored 76 in a maths exam and Nalule scored 83 in the same exam. Calculate theit range.

2. Range = Highest – Lowest

= 83 – 76

= 8 3

- 7 6

0 7 mark

**2.The table below shows the amount of rainfall recorded at Victorious P/S.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Month** | Jan | Feb | Mar | Apr | May |
| **Rainfall in mm** | 15 | 30 | 45 | 60 | 58 |

Find the range of the amount of rainfall recorded.

3. A farmer picked the following number of eggs in a week.

63 , 74 , 58 , 86 and 49

Work out range of eggs the farmer picked.

**LESSON 35**

**Content: Mode / Modal mark**

Modal mark is the number (Mark) with the highest frequency (appearance) in the given data.

OR

Modal mark is the number which appears most times in the given data.

**Examples:** Primary five pupils scored the following marks in a given exercise.

8 , 6 , 7 , 6 , 4 , 6

|  |  |
| --- | --- |
| **Mark** | **Freq** |
| 8 | 1 |
| 6 | 3 |
| 7 | 1 |
| 4 | 1 |

Six is the number appearing more times.

6 is the modal mark.

ii) A group of children collected the following number of mangoes as recorded below.

9 , 3 , 4 , 4 , 9 , 5 , 4

Find their modal number of mangoes collected.

iii) Grace recorded the number of visitors received at their home in a week.

Sun Mon Tue Wed Thur Fri Sat

7 2 1 2 4 2 0

Work out the modal number of visitors received.

**LESSON 36**

**Content: Modal frequency**

**Modal frequency is the number of times the mode appears**

|  |  |
| --- | --- |
| **Number** | **Frequency** |
| 2 | 2 |
| 3 | 1 |
| 4 | 3 |
| 5 | 1 |

Modal frequency is 3 because the mode 4 appears 3 times.

**Activity:**

1. Given 45 , 62 , 49 , 62 , 70 and 62. Work out the modal frequency.

2. The table below represents marks scored by a group of boys in an end of term examinations.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Marks** | 30 | 25 | 40 | 35 |
| **No. of pupils** | 1 | 2 | 3 | 4 |

a) How many boys did the examination?

b) Find the modal mark.

c) What is the modal frequency?

**LESSON 37**

**Content:** Average / Mean

This is got by dividing the total sum of items by the number of items.

i.e Average / Mean = Sum of items

No. of items

**Examples**

Find the average of 5 , 6 , 3 , 4 and 7

Average = Sum of items

No. of items

= 5 + 6 + 3 + 4 + 7

5

= 25

5

= 5

**Activity;**  
1.Calculate the average of 4 ,5 , 6 , 7 and 8

2. Given 45 , 49 , 62 , 70 and 72. Work out the mean.

3.The table below represents marks scored by pupils.

|  |  |
| --- | --- |
| **Mark** | **Freq (No. of pupils)** |
| 10 | 3 |
| 25 | 2 |
| 40 | 1 |

a) How many pupils sat for the paper?

b) Calculate their range.

c) Find the modal mark.

d) Calculate the average.

**LESSON 38**

**Content: Drawing graphs from tables.**

**Example: Use the information on the table below to draw;**

1. a bar graph.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No. of pupils** | 10 | 15 | 5 | 20 | 25 | 10 |
| **Types of food** | Irish | Millet | Posho | Cassava | Matooke | Yams |

A bar graph showing types of food like by pupils.  
 25

20

15

10

5

0

Irish Millet Posho Cassava Matooke Yams

**Types of food**

**b) a line graph**

25

20

15

10

5

0

Irish Millet Posho Cassava Matooke Yams

**Types of food**

**Note: Our vertical scale = 1 square unit stands for 5 pupils.**

**Horizontal scale = 1 square unit stands for a bar.**

**Activity:**

1. The table below shows Kalanzi’s daily milk sales for a week.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Day** | Mon | Tue | Wed | Thur | Fri | Sat |
| **Sales in Hrs** | 20 | 40 | 60 | 50 | 80 | 100 |

Vertical scale 1 square = 10 litres

Horizontal scale 1 square = 1 bar

a) Use the table above to draw a bar graph.

b) Using the above information (table), draw a line graph.

c) What was the difference between the highest and the lowest sales?

d) What was the total amount of milk sold in six days?

e) Find the total amount of milk sold on Tuesday , Wednesday and Saturday.

**LESSON 39**

**Content: Picto graph**

**This is the use of pictures to represent data.**

**Examples;**

1. If stands for 4 flowers. How many flowers are represented by ?

 Stands for 4 flowers

 Stands for (3 x 4) flowers

= 12 flowers

OR

 Stands for (4 + 4+ 4) flowers

= 12 flowers

2. Given that stands for 6 oranges. How many oranges are represented by



 Stands for 6 oranges.



Stand for (3 x 6) + (½ x 6)

= (18 + 3) oranges

= 21 oranges

3. Assuming represents 5 cups.

Draw pictures to stand for 20 cups

No. of pictures = 20 ÷ 5

 = 4

=

**Activity: Use the table below to make a picto graph.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Campus** | Genesis | Miracle | Divine | Ebenezer | Anointed |
| **No. of balls** | 21 | 28 | 21 | 49 | 14 |

SL01040_Scale: stands for 7 balls.

**LESSON 40**

**Content: Interpreting graphs and tables**

**Examples: Christine’s subject score is as follows.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Subject** | Eng | MTC | SCI | SST |
| **Score** | 80% | 95% | 85% | 75% |

a) In which subject did Christine score highly?

b) How many subjects were examined?

c) Calculate her range.

2. The graph below shows the number of absentees, if there are 50 pupils in that class, use it to answer questions that follow.

50

40

30

20

10

0

Mon Tue Wed Thur Fri

a) How many pupils were absent on Thursday?

b) How many pupils were present on Wednesday?

c) Which day had the highest attendance?

d) Find the total attendance of the week.

**LESSON 41**

**Content: Interpreting line graphs**

**Examples: Use the line graph below to answer the questions that follow.**

7,000

5,000

3,000

1,000

0

Salt Rice Bread Sugar

a) What is the cost of salt?

b) How much did Betty pay for rice and sugar?

c) If sheema had shs. 7000 and bought a loaf of bread. What was her change?

d) How much more does sugar cost than bread.

**Activity: Study the graph below and use it to answer the questions that follow.**

15

12

9

6

3

0

Agnes Jesse Odur Otim

a) How old is Otim?

b) By how many years is Odur older than Jesse?

c) Write Odur’s age in Roman numerals.

d) Find their total age.

e) In which year was Agnes born?

**LESSON 42**

**Content: Probability**

**Probability deals with chances**

Probability = Desired chances (DC)

Total chances (TC)

OR

Probability = No. of events

Sample space

**Examples:**

1. Find the probability that Peter will go to school on a day that starts with letter T.

Sample space = Sun , Mon , Tue , Wed , Thur , Fri , Sat

No. of events = Tue ,Thur = 2

Probability = No. of events

Sample space

= 2

7

2. What is the probability that an expecting mother will produce a baby boy?

Total chances = boy , girl = 2

Desired chances = boy = 1

Probability = DC

TC

= 1

2

3. A basket contains 6 ripe mangoes and 4 aw mangoes. Find the probability of picking a ripe mango.

Total chances (TC) = 6 + 4 = 10

Desired chances (DC) = 6

Probability = Desired chances

Total chances

6

10

**Activity:**

1. Find the probability that Jane will visit her aunt on Wednesday?

2. A box contains 5 red pens and 7 blue pens. Find the probability of picking a red pen.

3. A box contained 4 pink, 6 purple and 9 black colours. What is the probability of picking a pink colour at random?

**LESSON 43**

**Finding probability by tossing;**

Tossing;-

a) Coin = (Head , Tail)

H , T

b) die= {1 , 2 , 3 , 4 , 5 , 6}

**Examples**

1. Find the probability that a coin tossed once, the Head will show on top.

Sample space = {H , T} = 2

Number of events = H = 1

Probability = No. of events

Sample space

= ½

2. A fair die was tossed once, find the probability that an odd number will appear on top.

Total chances (TC) = (1 , 2 , 3 , 4 , 5 , 6) = 6

Desired chances (DC) = (1 , 3 , 5) = 3

Probability = DC

TC

= 3

6

**Activity**

1. A coin was tossed once. Find the chance that a tail will show on top.

2. A fair die was tossed once, find the probability that the number that is;

i) greater than 3 will show on top

ii) an even number will show on top

iii) Less than 5 will show on top

iv) a prime number will show on top

v) a multiple of 2 will show on top

TERM III

**LESSON NOTES OF MATHEMATICS FOR P.5**

**TERM III – 2018**

**Topical breakdown**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Theme | Topic | Sub-topic | Duration | Learning outcome |
| Measurements | Money | * Recognition of money * Simple rates * Buying and selling (shopping bill) * Table * Listing * Find profits and losses * Cost price and selling price | 1 ½ | The learner is able to solve practical problems related to utilization of Ugandan currency in everyday life. |
|  | Length, Mass, Capacity | * Conversion of length into cm/ km to ma and vice versa. * Calculating perimeter and area of figures i.e. squares, triangles and rectangles only. * Perimeter of a square, triangle and rectangle * Conversion of mass; kg to grams and vice versa. * Solving mathematical problems involving mass. (addition and subtraction) * Conversion of units in capacity. * Solving problems in measurement of capacity. * Addition and subtraction of capacity. | 2 ½ weeks | The learner is able to recognize and use standard instruments and units for measuring length, mass and capacity. |
| Numeracy | Integers | * Drawing numberlines and identifying positive and negative integers * Arranging integers * Comparing integers using symbols ≤,≥ * Addition and subtraction of integers * Mathematical statements and interpreting numberlines. * Solving word problems involving integers. | 2 weeks | The learner is able to solve mathematical problems and puzzles using the knowledge of integers. |
|  | Algebra | * Forming algebraic expressions * Collecting like terms * Substitution * Solving equations by (subtracting , adding) * Word problems involving addition and subtraction. * Solving by dividing * Solving by multiplying * Word problems involving division and multiplication * Solving equations involving mixed equations. * Solving equations involving square roots * Application of algebra in (perimeter, area and volume) | 2 weeks | The learner is able to solve mathematical problems and puzzles using the knowledge of algebra. |

**TOPIC: MONEY**

**Lesson 1**

Sub topic: money

Content: denominations

Types of money

Coins, e.g. 50, 100, 200, 500

Notes e.g. 1000, 2000, 5000, 10000, 20000, 50000

Examples

Peter had 3notes of 1000/= each. How much money did he have?

1 note = 1000/=

3 notes = (3 x 1000)/=

3notes = 3000/=

NB: do also calculations on a number of coins and notes of different denominations

REF

Teacher’s collections

**Lesson 2**

Sub topic: buying and selling

Content: using price list

Example

1 book costs 200/= what is the cost of 5 similar books?

1book = 200/=

5books = (5 x 200)/=

5books = 1000/=

Ref

New MK maths bk 5 pg 143

Old Mk pp 222

**Lesson 3**

Sub topic: buying and selling

Content: more simple rates

Examples

Find the cost of 12 similar books

5books cost 1000/=

1bk costs

1bk = 200/=

12bks costs (200 x 12)

12bks costs 2400/=

Ref

New MK pg 239

Old MK pg 222

**Lesson 4**

Sub topic: shopping bills and change

Content:

Examples

Kiyaga had 10,000/= he bought 2kg of sugar at shs.1600 per kg, 3bars of sopa at 1000/= each bar, ½ kg of salt at 400/= @ kg

1. How much did he spend altogether?
2. How much did he spend altogether?
3. What was his balance

10,000

* 6400

3600/=

|  |  |  |
| --- | --- | --- |
| Item | Method | Amount |
| 2kg of sugar at 1600/= @ | 2 x 1600/= | 3200/= |
| 3bars of soap at 1000/=@ | 3 x 1000/= | 3000/= |
| ½ kg of salt at 400/=@ | ½ x 400/= | 200/= |
| Total | | 6400/= |

Ref

New mkmaths bk5 pg 145-146

Old MK pg 223

**Lesson 5**

Sub topic: completing bill tables

Content:

Examples

A father gave the shopping list below to his children

|  |  |  |  |
| --- | --- | --- | --- |
| **Item** | **Quantity** | **Unit cost** | **Total** |
| Blue band | ½ kg | Shs. 4600 each kg | Shs.2300 |
| Bread | .......loaves | Shs. 800 each loaf | Shs.2400 |
| Tea leaves | ¼ kg | Shs.........@kg | Shs.1500 |
| Sugar | 4kg | Shs.1800 @ kg | Shs............ |
|  |  | Total | Shs............. |

Complete the shopping bill

Show all the calculations and fill in later and add

Bread tea leaves sugar

800/= can buy 1 loaf ¼ kg cost 1500/= 1kg cost 1800/=

1/= buys 1/800 x 2400/= 1kg costs 1500 ÷ ¼ 4kg = 1800/=

2400/= buy 3 loaves 1kg cost 1500 x 4 x 4

= 6000/= 7200/=

Ref

New mk maths bk 5 pg145-146

Old MK pg 224

Remarks: .......

**Lesson 6**

Sub topic: transport fare

Content:

Example

A taxi driver charges shs5000 for a trip from Kampala to Jinja per person

How much will 7 people pay for the trip?

1person pays shs.5000/=

7 people pay = 5000 x 7

= 35000/=

Ref

New MK pg 243

Old Mk pg 225-226

**Lesson 7**

Content: profit and loss

Examples

Andrew bought a goat at 20,000/= and sold it at shs.25000/=. What profit did he make?

Profit = selling price – cost price

Profit = 25000 – 20000

Profit = 5000/=

Matovu bought a goat at 30,000/= and sold it at shs20000/= how much was his loss?

Loss = buying price – selling price

Loss = 30000 – 20000

Loss = 10000/=

Ref

New mk maths bk5 pg 147-149

Curriculum pg 100

**Lesson 8**

Sub topic: finding cost price using profit and selling price

Content:

Examples

Nambi sold a radio set at 50000/= she made a profit of 10000/=. What was his cost price?

Selling price = 50000/=

Profit = 10000

Cost price = selling price – profit

Cost price = 50000 – 10000

Cost price = 40000/=

Ref

New MK maths bk 5 pg 152

**Lesson 9**

Sub topic: finding cost price using loss

Content:

Examples

Oketch sold a goat at 15,000 and made a loss of 3000. How much did he buy the goat?

Selling price = 15000

Loss = 3000

Buying price = selling price + loss

Buying price = 15000 + 3000

Buying price = 18000/=

Ref

New mkmathsbk 5 pg 151

Remarks:...............

**Lesson 10**

Sub topic: finding selling using profit and cost price

Content

Examples

A trader bought a shirt at 7500/= and sold it making a profit of shs.3500. what was his selling price?

Buying price shs.7500

Profit = 3500

Selling price = buying price + profit

Selling = 7500 + 3500

Selling price = 11000/=

Ref

New MK maths bk5 pg 150-152

Remarks: ................

**Lesson 11**

Sub topic: finding selling price using loss

Content:

Examples

A pupil bought a ball at 15000/= and sold it at a loss of 3000/=. What was the selling price of the ball?

Buying price = 15000/=

Loss = 3000/=

Selling price = buying price – loss

Selling price = 15000 – 3000

Selling price = 12000/=

Ref

New MK maths bk 5 pg 150-152

Remarks:.............

**Theme : MEASUREMENT**

**Topic: Length, Mass, Capacity**

Sub topic: length (distance from one point to another

Content

Estimate in cm and mm

Pupils will measure objects / lines in centimetres and milimetres and record the answers (group activity)

Ref

New MK maths bk 5 151 and 152

Old MK pg 198

Remarks:

**Lesson 2**

Subtopic: conversion of metric units

Content: expressing cm to mm and vice versa

Examples

How many mm are 8cm

1cm = 10mm

8cm = (8 x 10)mm

8cm = 80mm

Convert 120mm to cm

10mm = 1cm

Ref

New MK maths bk pg 157

Remarks: ...........

**Lesson 3**

Sub topic: conversion of metres to cm and vice versa

Content

Examples 1

Change 5m to cm

5m = 100cm

5m = (5 x 100)cm

5m = 500cm

Example 2: Express 1.5m to cm

1m = 100cm

Example 3:

Change 200cm to m

100cm = 1m

1 cm =( 1 ) m

100

200cm = 2m

Ref

New MK maths bk 5 pg 157

Old Mk pp 198

Remarks:

**Lesson 4**

Sub topic: Addition of m and cm

Content

Examples

Add

a) m cm b) M cm

8 45 2 73

+ 1 55 + 3 13

Ref:

Understanding MTC bk 5 pg 144-145

Trs’ collection

**Lesson 5**

Subtopic: Subtraction of m and cm

Content :

Examples: subtract

a) M cm b) M cm

4 93 9 45

- 2 22 - 3 65

Ref:

Understanding mtc bk 5 pg 142-146

**Lesson 6**

Sub topic: expressing km to m

Content

Example

Express 2km as metres

1km = 1000m

2km = (2 x 1000)m

2km = 2000m

Change 15km to m

1km = 1000m

15km = (15 x 1000)m

15km = 15000m

Convert 0.5km to m

1km = 1000m

= 5 x 100m

= 500m

Ref

New mk maths bk 5 pg 158 / Old Mk pp 199

**Lesson 7**

Sub topic: converting metres to km

Content:

Examples

Change 5000m to km

1000m = 1km

Change 16500m to km

Ref

New mk maths bk 5 pg 156

Old MK pp 199

Remarks:

**Lesson 8**

Sub topic: comparing units of measures

Content: using>, < or =

Examples

60mm\_\_\_\_20cm

1cm = 10mm

20cm = (20 x 10)mm

20cm = 200mm

60mm < 200mm

60mm < 20cm

Do comparison examples with m and cm and vice vasa, km and m and vice vasa

Ref

New Mk Maths Bk 5 Pg 156

**Lesson 9**

Sub topic: perimeter

Content: finding perimeter of polygons

Regular figures are polygons with all sides equal

Perimeter is the distance around the figure

**Example**

Find the perimeter of the equilateral triangle below

P = s + s + s

5cm

P = 5 + 5 + 5

P = 15cm

Do examples of squares, pentagon, octagons, heptagons etc

Square

P = s + s + s + s

4cm

P = 4 + 4 + 4 + 4

P = 8cm + 8cm

P = 16cm

Ref

New Mk maths bk 5 pg 159-161

Old edition Mk pp 203-204

Curriculum pg 101-102

**Lesson 10:**

Sub topic: finding sides using perimeter

Content:

The perimeter of a square is 12cm. what is the length of each side?

A square has 4sides

S

Each side = 3cm

The perimeter of a square is 40cm find the length of each side

A square has four sides

P = s + s + s + s

P = 4s

S = 10cm

The perimeter of a regular pentagon is 20cm. how long is one of its sides?

A pentagon has 5 sides

P = s + s + s + s + s

4cm = s

One side = 4cm

Ref

Old MK pp 205-206

New MK pp 284

**Lesson 11**

Sub topic: finding one side of a rectangle using perimeter

Content:

Examples

The perimeter of a rectangle is 22cm and its length is 7cm find its width.

P= 2(L + W) 22 – 14 = 14 – 14 + 2W

P=22cm

7cm

W

22=2(7 + W) 8 = 0 + 2W

22 = 14+2w

The perimeter of a rectangle is 40m if its width is 9m find its length

L

P = 40m

9m

P = L + W + L + W 40 – 18 = 2L + 18 - 18

40 = L + 9 + L + 9 22 = 2L + 0

40 = L + L + 9 + 9

40 = 2L + 18

Ref

New MK pg 284

Old Mk pg 205-206

Remarks: ............

**Lesson 12**

Sub topic: perimeter of irregular shapes

Content:

Examples

5cm

9cm

3cm

A

7cm

B

Find the missing sides

Side A Side B

A = (9 – 7)cm B = 5cm + 3cm

A = 2cm B = 8cm

Find the perimeter of the figure

P = S + S + S +S + S + S

P = 7cm + 3cm + 2cm + 5cm + 9cm + 8cm

P = 34cm

Find the perimeter of the scalene triangle below

P = S + S + S

10cm

6cm

3cm

P = 6cm + 3cm + 10cm

P = 19cm

Example 3

Consider

Trapezium

Pentagons

Hexagons

Ref

Teacher’s collections and refer to Bk 4

**Lesson 13**

Sub topic: area of a rectangle

Content

Example

Find the area of the rectangle below

6m

4m

A = L x W

A = 6m x 4m

A = 24m2.

The area of a rectangle is 40dm2 and its width is 8dm. find the length

L x W = 40dm2

8 x L = 40dm2

Ref

Exercise 11:7 pg 162-163 Mk new edition / Exercise 8h pg 208 old edition

**Lesson 14**

Sub topic: area of a square

6cm

Find the area of a square

A = S x S

A = 6 x 6

A = 36cm2.

The area of a square is 36cm2 find its sides

S x S = A

S2 = A

Ref

New Mk maths Bk 5 pg 160 7.9 and pg 281 exercise 12.17

Old MK pg 207

**Lesson 15**

Sub topic: area of a triangle

Content:

Examples

Find the area of the triangles below

A

6cm

B 4cm 5cm D

A

7cm

B 10cm D

A

4cm

B 3cm

Ref

New MK maths bk5 pg 164

Old mk bk5 page 209-210

**Lesson 16**

Sub topic: word problems involving area of triangles

Content:

Examples

The base of a triangle is 4cm and its area is 28cm2. Find its height

h

4cm

Ref

New mk math bk5 pg 163

**Lesson 17**

Sub topic: area of combined figures

Content:

Find the area of the figures below

8cm

12cm

6cm A B

6cm B

4cm

A

8cm

6cm

A = L x W

A = 8cm x 6cm

A = 48cm2

Total area = 48cm2 + 12cm2

Total area = 60cm2

Ref

New mk maths bk5 pg 164-165

Old Mk pp 210-211

**Lesson 18**

Sub topic: area of shaded and unshaded regions

Content

Examples

Area of big rectangle – area of small rectangle

5cm

8cm

= (L x W) – (L x W)

= (10x 6)cm2 – (8 x 5)cm2

6cm

= 60cm2 – 40cm2

10cm

=20cm2

Ref

Old mk maths bk5 pg 212 to 213 exercise 8k

New MK pp 166-167

**Lesson 19**

Sub topic: volume

Content: definition (volume) amount of space inside a container, cubes and cuboids

Examples

Find the volume of the cuboid

Volume shaded area

5cm

3cm

4cm

V = L x W x H A = L x W

V = (5 x 4 x 3)cm3 A= (4 x 3)cm2

V = 60cm3 A = 12cm2

Find the volume of the cube below

V = S x S x S

2cm

V = 2 x 2 x 2

V = 8cm3

Ref

New MK pp 168-171

Trs’ collection

**Lesson 20**

Sub topic: application of volume

Content:

Examples

Find the missing side of the cuboid given the volume = 50cm3.

V = L x W x h

5cm

h

3cm

60cm3 = 5cm x 3cm x h

Ref

New mk bk5 pg 287 exercise 12.22

**Lesson 21**

Sub topic: total surface area

Content:

Example

A cuboid has faces

TSA = 2(L x W) + 2(L x h) + 2(h x W)

4cm

2cm

3cm

TSA= 2(4 x 3) + 2(4 x 2) + 2(2 x 3)

TSA = 2 x 12cm2 + 2 x 8cm2 + 2 x 6cm2

TSA = 24cm2 + 16cm2 + 12cm2

TSA = 52cm2

Ref

Teacher’s collection

**Lesson 22**

Sub topic: capacity

Content: measuring in litres and millilitres

1L = 1000cm3 or 1000Ml

Examples

Express 5litres of water as

1. Cubic centimetres (b) as millilitres

1L = 1000cm3 1L = 1000ML

5L = (5 x 1000)cm3 5L = (5 x 1000)ML

5L = 5000cm3 5L = 5000ML

Ref

New mk bk 5 page 168 exercise 11:12

**Lesson 23**

Sub topic: comparing metric units

Content: comparing length to weight to capacity

Example

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Place value | Kilo | Hector | Deca | Basic | Deci | Centi | Milli |
| Meaning | 1000m | 100m | 10m | Metre gram litre | 1/10of m | 1/100 x m | 1/1000 x m |

Change 3000ML to Litres change 3litres to ML

1000ML = 1L 1L = 1000ML

3L = (3 x 1000)ML

3000ML = 3Litres 3L = 3000ML

Ref

New mk math bk5 pg 263 exercise 11.25

New mk math bk 5 page 263 exercise 11:24

**MASS**

**Lesson 24**

Sub topic: expressing grams to kilograms vice versa

Content:

Examples

Change 4000gm to kg

1000g = 1kg

4000g = 4kg

Example 2

Change 3kg to g

1kg = 1000g

3kg = (3x1000)g

3kg = 3000g

Ref

New mk maths bk5 pg 262 exercise 11.23

**Lesson 25**

Subtopic: Addition of kg and g

Content

Example 1

a) kg g b) kg g

5 456 4 596

+ 2 204 + 2 405

Ref:

New Mk pp 263

Tr’s collection

Subtopic: Subtraction of kg and g

Example

a) kg g b) kg g

8 765 9 576

+ 3 273 + 3 623

Ref:

Tr’s collection

**Theme: INTEGERS**

**Lesson 1**

Sub topic: Definition

Content:

Integers are numbers represented using a numberline.

1. Integers – positive and negative numbers including a zero on a numberline.
2. Identifying positive integers

Positive integers have an arrowhead pointing to the right.

Negative integers have an arrowhead pointing to the left.

Examples

i)

+5

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

ii)

-4

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

Example: show +3 on a number line

+3

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

Ref

Exercise 5: New MK mtc bk5 pg 83-84

**Lesson 2**

Subtopic: Expressions using integers

Content

1. A boy who got no marks in a test is represented by = 0.
2. A profit of shs 300 - +300
3. 3 metres below the ground = -3m

Ref

Exercise: Class discussion 3 page 96 New MK bk5

Exercise: Class discussion 2 page 158 old MK bk5

Teachers’ collection

**Lesson 3**

Subtopic: Writing integers represented on a number line

Content:

c

b a

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

a = +5 b = -3 c = +4

Ref

New Mk bk5 pg 85

**Lesson 4**

Subtopic: Comparing integers

Content: comparing integers

Examples: i) Which is smaller -4 or +2?

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

The one on the left side is always smaller.

∴-4 is smaller than +2

ii) Use >, <, = to complete

+3 > -3

Ref

Exercise 6:2 pg86 New MK mtc bk5

Exercise 6e pg 169 old Mtc bk5

**Lesson 5**

Subtopic: ordering integers

Content: In ascending and descending order

Examples: Arrange -3, +1, -2, 0 and 3 in ascending/ descending orders

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

{-3, -2, 0, +1, +3}: ascending order

{+3, +1, 0, -2, -3}: descending order

**Ref:**

Exercise 6:4 pg 85-86

Exercise 6e pg 169 old mtc bk5

**Lesson 6**

Subtopic: solution sets

Content: Using >, <, >,<

Y > 0 (means Y are integers greater than or equal to 0)

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

Y = {0 +1, +2, +3, +4, +5, +6, ………..}

Ref

Exercise 5:3 pg99 New Mtc bk5

**Lesson 7**

Subtopic: Inverse of integers

Content: Pairs of inverse

-3 -2 -1 0 +1 +2 +3

The inverse of -1 is +1

The inverse of +1 is -1

Additive inverse

Example 1: +4 + -4 -4

+4

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

Note: The additive inverse is a number which gives 0 when added to a number.

Example 2: Calculations

What is the additive inverse of +4:

Let the inverse be x

x + 4 = 0

x + 4 – 4 = 0 – 4

x + 0 = -4

x = -4

Ref

Exercise 5:4 and 5:5 pages 100 – 102 New MK mtc bk5

Teachers’ collection: Use calculations to find the inverses of 1, -3, 2, +5, 3, -6, 4, x

**Lesson 8 (a)**

Subtopic: Addition of integers

Content: Using a numberline

Example: Add +5 + +3

+3

+5

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

+8

∴+5 + +3 = +8

Example 2

+4

-2

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

+2

∴-2 + 4 = +2

Ref

Exercise 5:6 and 5:7 and 5:8 pg 102 – 104 New MK mtc bk5

Exercise pg 96 Oxford pri Mtc bk5 pg96

**Lesson 8 (b)** Addition of +ve and –ve integers on a number line.

Example: Add +4 + -2

-2

+4

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

+2

∴+4 + -2 = +2

Exercise 5:7 New Mk edition pg104

NB: Addition of –ve and +ve integers on a numberline

**Lesson 8 (c)**

Example: -5 + -3

-3

-5

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

-8

∴-5 + -3 = 8

Ref

New Mk (New edition) pg 104

**Lesson 8 (d)** Multiplication of integers (repeated addition)

Example 3 x +2

+2 +2 +2

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

∴3 x +2 = +6

2 x -4

-4 -4

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

∴ 2 x -4 = -8

Ref

Exercise 8 pg102 Oxford primary Mtc bk5

Trs’ collection

Subtraction of integers on a numberline

**Lesson 9a: Positive and positive**

Example: Subtract +6 - +2

= +6 – 2

-2

+6

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

+4

+6 - +2 = +4

Ref

Exercise 5:15 pg 105-108

**Lesson 9b: Negative and positive**

Example 1: -4 - +3 = -4 - +3

-3

-4

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

-7

-4 - +3 = -7

Ref

Exercise 5:9 and 5:10 pgs105 and 106 new Mtc bk5

**Lesson 10a: More subtraction of integers**

Content: Positive and negative

+

Example +3 - - 2 = +3 - - 2

= 3 + 2 +2

+3

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

+5

**Lesson 10b: Negative and negative**

Example: Subtract -3 - - 2 = -3 - - 2

= -3 + 2

+2

-3

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

-1

∴-3 - - 2 = -1

Ref

Exercise 5:11 and 5:12 pg 107 – 108 New Mk bk5

**Lesson 11**

Subtopic: Forming mathematical statements

Numberlines

Content: Write the mathematical statement shown on the numberline

b

a

-8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9

c

a = +3, b = -5 and c -2

Statement: +3 + -5 = -2

Nb: Teach also situation when arrow starts from a –ve side and crosses zero to positive and vice versa

Ref

Exercise 5:13 pg109-110 New MK bk5

Exercise 6c pg106 old edition bk5

**Lesson 12a**

Subtopic: Addition of integers without using a numberline

Content: Addition

Note:

1. (+) + (+) = (+)
2. (-) + (-) = (-)
3. (-) + (+) = (-) if –ve figure is greater
4. (-) + (+) = (+) if +ve figure is greater

Example

Simplify: +7 + -3

= +7 -3

= +4

(b) -3 + -4 = -3 + -4

= -7

1. -7 + + 3

= -7 + 3

= -4

1. +3 + +4

+3 + 4

= +7

Ref: 5:15 pg111 New Mk bk5

**Lesson 12b**

Subtopic: Subtraction of integers without using a numberline

Content note

1. (+) - (+) = (-) if the 2nd figure is greater
2. (+) - (+) = (+) if the 2nd figure is greater
3. (-) - (-) = (+) if the 2nd figure is greater
4. (-) - (+) = (-)

Examples

1. i) +3 - +7 = 3 – 7 = -4 ii) +7 - +3 = 7 – 3 = +4
2. i) -3 - -7 = -3 + 7 = +4 ii) -7 - -3 = -7 + 3 = -4
3. i) -3 - +7 = -3 – 7 = -10 ii) -7 - +3 = -7 – 3 = -10
4. i) +7 - -3 = +7 +3 = +10 ii) +3 - -7 = +3 +7 = +10

Ref: Exercise 5:15 pg112 new MK bk5

**ALGEBRA**

**Lesson 1**

Sub topic: forming algebraic expressions

Content

Example

1. 4 boys visited my home and later other 2 boys. Later 5 of them left. Form an algebraic equation and simplify it

2 boys + 4 boys – 5 boys

2b + 4b – 5b

6b – 5b

= b

1. A number multiplied by 3 gives 15 let the number be represented by x

3x = 15

Ref

New MK pp 267-270

**Lesson 2**

Sub topic: simplifying algebraic expressions

Content

Examples

Write in short

q+ 7q + 4q = 12q 4b + 3b – t = 7b-t 10x – 3x + x

10x + x – 3x

11x – 3x = 8x

Ref: New MK pp 268

**Lesson 3**

Sub topic: collecting like terms and simplifying

Content:

Example : collect like terms and simplify

4b – 3b + 3t + t 7y – 8m + y + 10m – 6  
4b – 3b + 3t + t 7y + y + 10m – 8m – 6

B + 4t 8y + 2m – 6

Ref

New mk bk 5 pg 269 exercise 12.4

Old Mk pp 174-175

Remarks: ......................

**Lesson 4**

Sub topic: substitution

Example

If a = 1, b = 3 , c = 5

Find the value of 5c + 4b – 8a find the value of

(5 x 5) + (4 x 3) – (8 – 1)

25 + 12 – 8

37 – 8

29

abc = a x b x c

abc = 1 x 3 x 5

abc = 3 x 5

abc = 15

Ref

Exercise 12.6 pg 271 new mk bk5 new edition

MK old edition bk5 pp 177

**Lesson 5**

Sub topic: solving equations by subtracting

Content

Example

1. Find the value of a

16 + a = 20

16 – 16 + a = 20 – 6

0 + a = 4

a= 4

1. There are 50 pupils in a class 30 are boys. How many girls are there?

Let the number of girls be g

Boys + girls = 50

30 + g = 50

30 – 30 + g = 50 – 30

0 + g = 20

G = 20

Ref

New Mk Bk 5 Pg273 exercise 12.8

Old MK pp 179

**Lesson 7**

Sub topic: solving equations by adding

Content

Example

1. Solve n – 5 = 3

N – 5 + 5 = 3 + 5

N – 0 = 8

N = 8

1. A boy used 3 of his exercise books and remained with 4 books

How many books did he have at first?

B – 3 = 4

B – 3 + 3 = 4 + 3

B – 0 = 7

B = 7

He had 7 books

Ref

New mk bk5 pg 275 exercise 12.10

Old MK pp 180

Remarks: ........................

**Lesson 8**

Sub topic: solving equations by dividing

Content

Example

1. Solve 5a = 20

1. The length of a rectangle is 9cm. the width is Ycm. If its area is 72cm2 find its width.

L x W = area

9cm x y = 72cm2

Y = 8cm

Ref

New Mk Bk5 Pg276 exercise 12.11, 12.12

Old Mk pp 181

Remarks: .........................

**Lesson 10**

Sub topic: more equations involving dividing

Content

Solve x + x + x = 24 solve 2p + 5p = 14

3x = 24 7p = 14

X = 8 p = 2

Ref

New mk bk5 pg 277 exercise 12.13

Old MK pp 182-183

Remarks: ...........................

**Lesson 11**

Sub topic: solving equations involving mixed operations

Content

Example

Solve

1. 4a + 2a + 5 = 23 (b) 2x + 5 = 17

6a + 5 – 5 = 23 – 5 2x + 0 = 17 – 5

6a + 0 = 18 2x + 0 = 12

6a = 18 2x = 12

6 6 2 2

a = 3 x = 6

Ref

New mk bk5 pg 278 exercise 12.14

**Lesson 12**

Sub topic: equations involving squares

Content: Applying square roots

Example

Solve b2 = 4

=

=

B = 2

Ref

New mkbk 5 pg 280 exercise 12.16

Old MK pp 187

Remarks: ..................

**Lesson 13:**

Sub topic: equations with fractions

Content:

Example

1. What number when divided by 4 gives 3?

Let the number be x

X = 4 x 3

X = 12

1. A man divided his money among his three children and each got 450/=. How much money did he give out?

Let the amount of money be represented by m

Ref

New MK pp 282-283

**Lesson 16**

Sub topic: equations involving two fractions

Content:

Example (involving use of LCM)

Find the value of the unknown

Ref

Exercise 7q pg 185 old mk edition bk5

Remarks: .........

**Lesson 17**

Sub topic: application of square roots in algebra

Content

Example (Word problems)

The area of a square is 16cm2. Find its side

|  |  |
| --- | --- |
| 2 | 16 |
| 2 | 8 |
| 2 | 4 |
| 2 | 2 |
|  | 1 |

A = 16cm2

=

Ref

Exercise 12.17 pg 281 new edition mkbk 5

Exercise 7x pg 191 old edition mk bk65

Remarks: ...........

**Lesson 18**

Sub topic: application of algebra (perimeter)

Content

Find the unknown side of a figure when perimeter is given

Example

The perimeter of a square is 36cm find its side in cm

Let side be s

s + s + s + s = 36cm

4s = 36cm

P = 36

The perimeter of a rectangle is 4cm. if its length is 15cm. calculate its width

Let the width be represented by w

2(L x W) = P

2(15cm + W) = 40cm

P = 40cm

(2 x 15cm) + (2 + W) = 40cm

30cm + 2W = 40 W

30 – 30 + 2W = 40 - 30cm

0 + 2W = 10cm

2W = 10cm

2 2

W = 5

Ref

Exercise 12.20 page 284 / 285 New Edition Mk Bk 5

Exercise 7z (ii) page 195 old edition mk bk5

**Lesson 19**

Sub topic: finding unknown side when given area (rectangle) 5cm

Content: rectangle

P = 40cm

A long the length a + 2 7cm

3x = 15cm (opposite sides of rectangle are equal)

3x = 15cm 3x

3 3

X = 5cm

Along the width

A + 2 = 7cm (2 opposite sides of a rectangle are equal)

A + 2 – 2 = 7 – 5

A + 0 = 5

A = 5cm

Find (i) x (ii) length (4x – 3) cm

2x

Ref 9cm

Teacher’s collections

**Lesson 20**

Sub topic: finding unknown sides when given area

Content

Example

The area of a rectangle is 32cm2 its length is 8cm. what is its width?

Let the width be represented by w

L x w = area

A = 32cm2

8cm x w = 32cm2

8cmW = 32cm W

8cm 8cm

W = 4cm

Ref

Exercise 12.21 pg 286 new edition mk bk5

**Lesson 21**

Sub topic: finding unknown sides of cuboids when given volume

Content: example

The volume of a box is 60cm3. Its length is 5cm and width is 4cm. find its height

Let h be height

L x W x h = volume

h

4cm

5cm

5cm x 4cm x h = 60cm3

20cm2h = 60cm3

20cm2 20cm2

H = 3cm

NB: do the same for unknown width and length

Ref

Exercise 12.22 pg 287 new edition MK bk 5

Exercise 7z (iii) pg 196 old edition MK bk 5

SOCIAL STUDIES

**P.5 SOCIAL STUDIES LESSON NOTES TERM I, 2023**

**TOPIC 1: LOCATION OF UGANDA ON THE MAP OF EAST AFRICA.**

**LEARNING OUTCOME**

**The learner is able to demonstrate an understanding and use of map reading skills to interpret information about one’s immediate and distant environment and the interactions of human and other factors.**

**REVISION ON DISTRICTS OF UGANDA**

Some of the districts in Uganda are;

* Mbale,
* Wakiso,
* Gulu,
* Arua,
* Mbarara etc.

**Why the government is creating more districts in Uganda.**

1. To bring services nearer to people (To improve service delivery)
2. To provide employment.
3. For development.

**Map of Uganda showing the current districts**

****

**Locating the neighbours of Uganda using a compass direction**

**Compass direction**

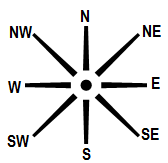
The compass direction has four cardinal points and these are;

1. North
2. South
3. East
4. West

The semi cardinals / secondary points are between the cardinal points and these are:

1. North East (N.E)
2. North West (N.E)
3. South East (S.E)
4. South West (S.W)

**Cardinal points and semi cardinal points**

****

**Example 1**

1. What is the direction of town A from town B?

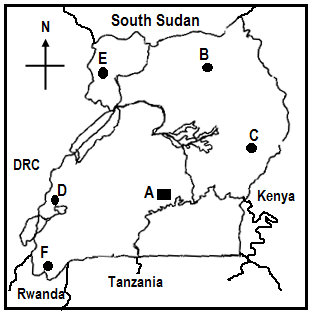
A

B

**Exercise**

1. What direction will Okello face if he turns clock wise?
2. From North for 450?
3. From 900
4. What direction will Okello if he turns anti-clockwise?
5. From Northeast form 1800?
6. From East from 2700?

**Direction of Uganda’s neighbours.**

****

**Questions**

1. What is the direction of;
2. Uganda from Kenya?
3. Democratic Republic of Congo from Uganda?
4. Rwanda from Uganda?
5. Uganda from Rwanda?
6. What is the compass direction of town ;
7. B from E
8. F from D
9. A from F

**Lines of latitude**

These are imaginary lines drawn on a map runningfrom East to West

**Major latitudes**

1. **The equator.**
2. It is the main latitude and it is marked 00 because all the other lines of latitude are marked beginning from it.
3. It divides the world into two equal hemispheres i.e. Northern and Southern.
4. The lines of latitude are also called parallels.
5. The term latitude means distance of a place north of the equator.

**Some of the districts of Uganda crossed by the Equator are**

1. Kasese
2. Mukono
3. Kiruhura
4. Bukomansimbi
5. Ibanda
6. Wakiso

**Lakes in Uganda crossed by the Equator**

1. Lake Victoria
2. L. George

**Uganda’s neighbours crossed by the Equato**

1. Kenya
2. DR Congo

**Other major lines of latitude are;**

Tropic of cancer 23½0N

Tropic of Capricorn 23½0S

Arctic circle 66½0 N

Antarctic circle 66½0 S

**Lines of latitude on a globe**

**North Pole**

**66½0 N**

**Arctic Circle**

**Tropic of cancer 23½0N**

**Northern**

**Hemisphere**

**Southern**

**Hemisphere**

**Equator 00**

**Tropic of Capricorn 23½0S**

**Antarctic circle 66½0 S**

**South Pole**

**Importance of latitudes**

1. They help to locate places on a map
2. They help to determine how far a place is North or South of the equator.
3. They help to determine the climate of an area.

**Lines of longitude.**

1. They are imaginary lines drawn on a map running from North to South.
2. Longitudes sometimes are called Meridians.

**Major longitudes.**

1. **Prime meridian / Greenwich meridian.**
2. The prime meridian is the main line of longitude and it is marked 00 because all other lines of longitudes are marked beginning from it.
3. The prime meridian is also called the Greenwich meridian because it passes through a town called Greenwich in England.
4. In Africa the Greenwich meridian passes through a city called Accra in Ghana.

**Importance of the Prime meridian.**

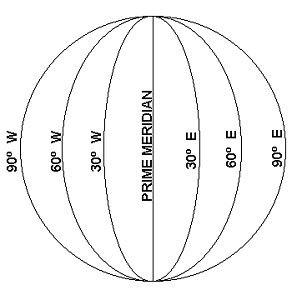
1. It helps to determine time in GMT (Greenwich Mean Time)
2. It helps to locate places on a map.
3. **The International Date Line.**

It marked 1800E or W of the Greenwich and it helps to determine the date.

**Importance of longitudes**

1. They help in telling time in Greenwich Mean Time (GMT)
2. Longitude helps to locate places on a map.
3. They help to determine the distance of places East or West of the Prime Meridian.

**Lines of longitude**

****

**Similarities between longitudes and latitudes.**

Both are imaginary lines drawn on maps.

Both are used to locate places.

**Activity**

1. *Define the following terms;*
2. *Lines of latitude*
3. *Lines of longitude*

*2. What do the following mean?*

1. *Longitude*
2. *Latitude*

*3. Name two neighbours of Uganda that are crossed by the equator*

*4. Name two districts in eastern Uganda that are crossed by the equator*

*5. Name two lakes in Uganda that are both in the southern and northern hemisphere*

*6. Mention any one importance of lines of latitude and lines of longitude*

*7. Why was the Greenwich meridian called so?*

*8. State one reason as to why the North Pole and South Pole are very called regions*

**Movement of the earth**

1. **Rotation of the earth**

This is the movement / spinning of earth a long its axis for 24 hrs or one day. An axis is an imaginary path a long which the Earth spins for one day or 24 hours.

The earth spins from West to East that is why the sun seems to be rising from the East.

**Effects of rotation.**

It causes days and nights.

This is because the side of the Earth that faces the sun experiences day while the other side experiences night.

1. **Revolution of the earth.**

Revolution of the earth is the movement of the earth a long its orbit for one year

**Effect of revolution**

It causes seasons

It causes changes of the years.

**Note**

1. There are two types of year i.e.:

* Leap year is the fourth year of every four years, which has 366 days.
* It has 29 days of February and has no remainder when divided by four.
* Ordinary year is the year when the month of February ahs 28 days and the year has 365¼ days.

1. The revolution of the earth also causes the sun to come directly overhead the equator twice and once over the two tropics, in a year.
2. On 21st March and 23rd September the sun is overhead the equator and these two days are called equinox meaning having equal days and nights.
3. On 21st June the sun is over head the tropic cancer and in this period the Northern hemisphere receives more rainfall than the South.
4. On 22nd December the sun is overhead the tropic of Capricorn and in this period the Southern hemisphere receive more rainfall than the North.

**A map showing lines of longitude and latitude**

Geographically Uganda lies between latitude **4½0 N and 1½0S**, and between longitudes and **290E and 350E**

**Location of Uganda on the map of East Africa**

1. Uganda is located in East Africa.
2. Uganda was named**“The pearl of Africa”by Sir Winston Churchill**, because of herbeautifulsceneries.
3. Uganda is alandlocked country, because it doesn’t have her own Seaport or a coastline.
4. Other landlocked countries in EastAfrica are;

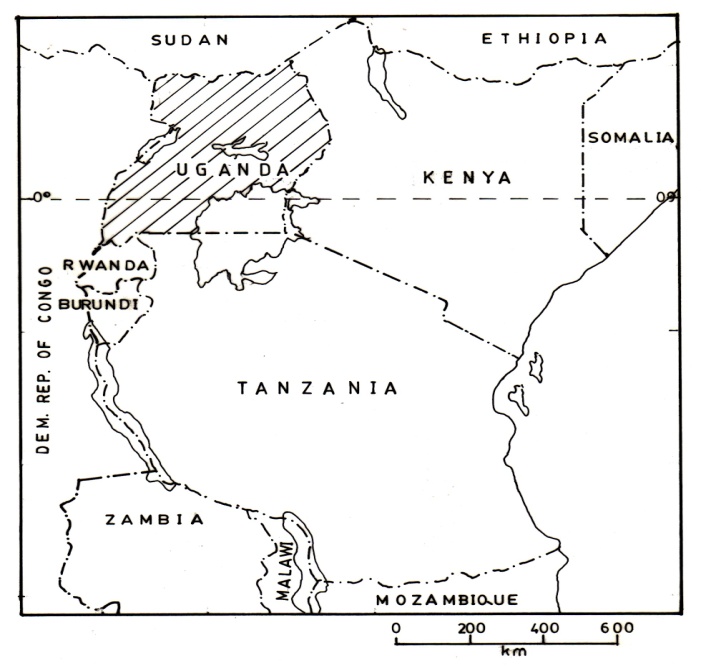
* Rwanda
* Burundi

1. Uganda uses her neighbors’ seaports for overseas trade i.e;

* Mombasa in Kenya
* Dar es Salaam in Tanzania

**NB:** Uganda has to maintain good relation with Kenya and Tanzania because we use their seaport.

**Location of Uganda on the map of East Africa**

****

**Problems faced by landlocked countries**

1. Paying taxes for using neighbours’ seaports
2. Goods may be delayed in transit.
3. High transport cost.

**Solutions to problems of landlocked countries.**

1. By having good relationship with neighbours.
2. By promotingindustrialization to minimize payment of taxes.
3. By developing and improving railway transport.

**Activity**

1. *Define the following terms as used in earth movements*
2. *Rotation*
3. *Revolution*
4. *Why do people experience day and night?*
5. *What helps people to experience different seasons in a year?*
6. *Mention the two dates when the sun is directly overhead the equator*
7. *Define the term equinox*
8. *Why do we call Uganda a landlocked country?*
9. *Mention Uganda’s neighbours that are landlocked*
10. *Write down two problems that are faced by landlocked country*
11. *Write down two solutions to problems faced by landlocked countries.*

**Elements of a good map**

1. A title/ Heading
2. A key
3. A frame
4. A scale
5. A compass direction
6. **Title / Heading**

It tells what a map is all about.

1. **Key**

It interprets or explains symbols used on a map.

A map symbol is a drawing used on a map to represent features that can’t fit on a map.

**Importance of symbols**

1. They reduce congestion and overcrowding on a map.
2. To represent features that can’t fit a map e.g. a mountain peak, a river, a lake etc.
3. **Scale.**

It enables map reader to find / calculate the actual distance on a map.

**Types of scale**

There are three types of scales.

1. **Statement**

It’s written in statement form e.g. 1am represents 50 km.

1. **Linear scale**

It’s put on lines as shown below.

1. **Representative fraction (RF)**

It’s written in fraction forms e.g. , , , which can also be written in form of ratios as

1:10, 1; 100, and 1:1000

**How to calculate actual distance using a scale**

1 cm represents 50 km.

1cm: 50 km

Distance on paper = 5 cm

Actual distance = 5 x 50 = 250 km

So 5cm on the paper represents 250 km on the ground

**A frame**

It helps in the positioning of the map

It encloses the map.

**Activity**

1. *Of what importance are the following to a map reader?*

* *scale*
* *title*
* *compass direction*

1. *What challenge will a map reader have when he/she finds a map without a scale?*
2. *Why does a map reader use a key while reading a map?*
3. *The distance from Jinja to Kampala on a map is 5cm. Calculate the actual distance using the scale of 1cm rep 20km.*
4. *How is a frame Important to a map reader?*

**TOPIC 2**

**THE PHYSICAL FEATURES OF UGANDA**

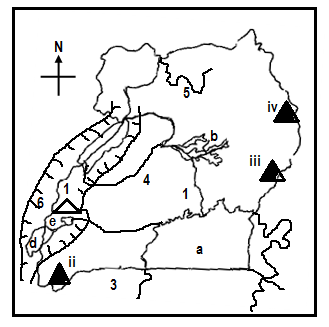
**LEARNING OUTCOME**

**The learner is able to explore, understand and appreciate the value of one’s immediate and distant environment for better health and harmonious living.**

Physical features are landforms of the earth’s surface and the examples are:

1. Mountains
2. Plateau
3. Rift valley
4. Lakes
5. River

**Map of Uganda showing main physical features.**



**Plateau**

Plateau is a raised, flat-topped piece of land.

The plateau in Southern Uganda is on a higher altitude than those in Northern Uganda; that is why river Nile flows northwards.

**Importance of plateaus**

1. Plateaus are good settlement.
2. Plateaus are good grazing land
3. Plateaus are good for crop growing.

**Economic activities carried out on the plateau are:**

1. Grazing cattle
2. Tourism
3. Industrialization.
4. Crop growing.

**Activity**

1. *What are physical features?*
2. *Mention any two physical features found in western Uganda*
3. *Write down one way in which physical features are politically important*
4. *Name any two physical features that were formed as a result of the following processes*
5. *volcanicity*
6. *faulting*
7. *down warping*
8. *State one reason as to why river Nile flows northwards*
9. *How important is a plateau to the construction industry?*
10. *Mention any one economic activity done on the plateau*

**The mountains or highlands of Uganda**

1. Relief is the general appearance of the landscape.
2. Altitude is the height above sea level.
3. Altitude is measured using an Altimeter, in meters.

**The major mountains of Uganda are:**

1. **Mt. Ruwenzori(5109 M)**
2. It is located in Western Uganda and its highest peak is Margherita and second highest peak in Stanley.
3. It is only Block Mountain in Uganda.
4. Mt. Ruwenzoriwas named **“mountains of the moon”** by Henry Morton Stanley because its snowcapped peak looked like a rising moon.
5. **Mt. Elgon (4321 m)**
6. Mt Elgon is a volcanic mountain found in the Eastern Uganda (Uganda – Kenya boarder).
7. Its highest peak is called Wagagai.
8. **Mt. Mufumbiro (4127 m)**
9. Mt. Mufumbiro is found in the extreme South-Western part of Uganda.
10. Its highest peak is called Mahavura other peaks are Sabinyo and Gakinga.
11. **Mt.Moroto (3084 m)**
12. It is found in the North Eastern region of Uganda.
13. It is a volcanic mountain, which is an Inselburg / Residual mountain in nature.
14. Little rainfall received throughout the year.
15. They graze animals in the slope of this mountain.
16. Other small mountains include Kadama and Napak.

**Types of mountains in Uganda.**

1. Block / Horst mountains
2. Volcanic mountains
3. **Block mountains / horst.**
4. Block Mountains are mountains that were formed by the process of faulting, due to compression forces.
5. The only example of Block Mountains or Horst Mountains in Uganda is Mt. Rwenzori.

**Formation of Block Mountains.**

|  |  |
| --- | --- |
| **Step 1** | **Step 2** |
| **FaultsCompressional forces**  **A** | http://t0.gstatic.com/images?q=tbn:ANd9GcQlYWUoYwOr332sf9yo1TYHTBUw0ANoRUUU_DVv7E7TlrxxSVpbbQ  **B**  **horst / block**  **Compression forces** |

1. **Volcanic mountains**

These are mountains formed by volcanicity or due to volcanic eruptions.

**Volcanicity**is the process by which molten rocks (magma) or gases from earth’s crust are forced to come on to the earth’s surface.

**Activity**

1. *What is relief?*
2. *Name the instrument used to measure the height of an area above sea level*
3. *How was the formation of mountain Rwenzori different from that of mountain Elgon?*
4. *How is the location mountain Rwenzori different from that of mountain Elgon?*
5. *What helps mountain Rwenzori to be snowcapped throughout the year?*
6. *Which people are found on the slopes of mountain Elgon?*
7. *What other name is given to block mountains?*

**Features formed by volcanicity are;**

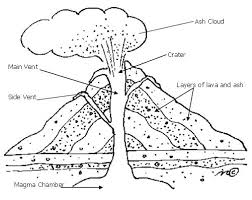
1. Volcanic mountains
2. Volcanic lakes(crater lakes)
3. Hot springs
4. Inselbergs / residual mountains.
5. Cones
6. Plugs.

Sometimes the magma solidifies within the vent and is later exposed due to soil erosion.

This process is called volcanicitye.g.

1. Inselburgs (Mt. Moroto)
2. A plug (Osukuru hills in Tororo)

**Formation of a volcano**



**Types of volcanoes**

There are three groups of volcanic mountains.

1. **Active volcanoes.**

These are mountains that have erupted in the last 500 years e.g.Mufumbiro.

1. **Dormant or sleeping volcanoes**

They have taken 500 years without erupting but may erupt again in near futuree.g. Elgon

1. **Dead or extinct volcanoes.**

These are mountains that are no longer expected to erupt again e.g.

**Dangers of volcanic activities.**

1. It can destroy life and property
2. It pollutes the environment.
3. It destroys transport and communication lines.

**Importance of mountains**

1. Mountains help in the formation of relief rainfall.
2. Mountains are tourist attractions.
3. Mountains are habitats for wildlife i.e. animals, birds and plants.
4. Some mountains have mineral deposits e.g. Limestone in Hima/Kasese and copper in Kilembe/Kasese on the slopes of Mt. Rwenzori.
5. Mountains are sources of rivers e.g. R. Manafwa, R. Sipi, R. Namatala, R. Malaba
6. Mountains have fertile slopes for crop farming.
7. A mountain is a habitat for a variety of wild species.

**Disadvantages of mountains.**

1. Mountains encourage soil erosion and landslides/mudslides.
2. Mountains hinder Transport and communication.
3. Mountains are habitat to vectors and pests
4. Some mountains can erupt and destroy life and property

**Activity**

1. *State the three types of volcanic mountains*
2. *Why is it dangerous to settle near a dormant volcano?*
3. *Mention two physical features that are formed as a result of volcanicity*
4. *Name the opening through which the magma comes out to the surface*
5. *What is volcanicity?*
6. *What is the relationship between a crater lake and a hot spring?*
7. *How are mountains important to people who settle near them?*
8. *Why is mountain Elgon referred to as a dormant volcano*?

**THE WESTERN RIFT VALLEY**

1. A rift valley is a long, narrow depression with escarpments on the earth’s surface.
2. The Western rift valley is part of the great East African rift valley that has two arms i.e. the Eastern and Western arm.
3. The Western arm of the rift valley passes through Uganda.

**Formation of the rift valley.**

1. The rift valley was formed by the process of faulting.
2. The forces that led to the formation of rift valley are: Tensional and compression forces.
3. A fault is a deep crack on the earth’s surface.
4. The steep sides of the rift valley are called Escarpments.

**Diagram showing formation of a rift valley.**

|  |  |
| --- | --- |
| **Formation by tension forces** | **Formation by Compression forces** |
| **tension forces**  **tensionforces** | **Compression**  **forces**  **Compressional**  **forces** |

**Lakes in the Western rift valley in Uganda:**

1. L. Albert
2. L. Edward

**Importance of rift valleys**

1. Rift valleys are tourist attractions.
2. Rift valleys have rift valley lakes that are fishing ground.
3. Rift valleys have mineral deposits e.g. salt in LakeKatwe and oil in AIbertine belt.

**Disadvantages of rift valleys.**

1. Rift valleys are a barrier to transport and communication.
2. Rift valley region has many pests and vectors e.g. Tsetse flies.
3. Rift valley region is in the rain shadow (I.e. little rainfall in received)
4. There is excessive heat in the rift valley, which is not suitable for human settlement.
5. The roads in the rift valley are slippery and muddy, therefore, impassable.

**Activity**

1. *What is a rift valley?*
2. *Which arm of the rift valley passes through Uganda?*
3. *What is faulting?*
4. *Why is human settlement difficult on the escarpments?*
5. *Write down two problems associated to the rift valley*
6. *State any two ways in which the rift valley is important to people*
7. *Name any one force that is involved in the formation of a rift valley*
8. *What is the relationship between Lake Edward and Lake Albert?*

**LAKES IN Uganda**

A lake is a mass of water surrounded by land.

**Types of lakes**

1. **Down warped/Crustal Depression lakes.**
2. They were formed by down warping.
3. Examples are
4. L. Victoria, L.Kyoga, L. Kwania, L. Bisina, L. Opeta, etc

**Characteristics of down warped lakes.**

1. They have fresh water.
2. They are shallow that is why they are swampy.
3. **Rift valley lakes**
4. They were formed through faulting.
5. They lie along the rift valley.
6. Examples are

L. Albert and L. Edward.

**Characteristics of rift valley lakes.**

1. They are salty
2. They are deep
3. They are along in shape.
4. They have inland drainage.

**Why rift valley lakes are salty**

1. They have no outlets/inland drainage
2. They lie on salty rocks.
3. They have salty ashes’.
4. **Ox – bow lakes**
5. They are formed as a result of meandering and deposition of materials on the river banks.
6. Examples of ox-bow lakes are found on R. Semliki and R. Ruizi

**Diagram showing formationOx-bow lake.**

|  |  |  |
| --- | --- | --- |
| **Step 1** | **Step 2** | **Step 3** |
|  |  |  |

1. **Deposition / Lagoon lakes**

Lagoon lakes are formed by deposition i.e. sand or silt cut off some water from the main water body forming lagoon lake e.g.Lake Nabugabo.

1. **Man-made lakes**

They are formed as a result of damming of rivers or physical dug out by man e.g.Kabaka’s lake, KajjansiLake and KibimbaLake.

1. **Volcanic lakes**

They are three examples of volcanic lakes i.e.

1. **Crater lakes**
2. They are found on top of dead volcanic mountains.
3. They are formed when water fills the hole left after volcanic eruptions e.g. L. Katwe.
4. **Lava dammed lakes.**

They are formed when larva blocks a river course forming a lake e.g. L. Bunyonyi, L. Mutanda etc.

**The main lakes of Uganda.**

1. **L. Victoria**
2. It is the largest fresh water lake in Uganda.
3. It is shared by the three East African Countries.
4. It was formed by down warping.
5. It has inland ports like Port Bell, Bukakkata and Jinja.

The shores of LakeVictoria and densely populated because:

* The soils are fertile
* There are reliable rainfall
* There are fishing grounds
* There are employment opportunities due to industrialization.

1. **Lake Kyoga**
2. It is found in Central Uganda.
3. It is themostswampylake in Uganda.
4. It is swampy because it is shallow.
5. **Lake George and Edward.**
6. They are joined together by the Kazinga channel
7. The kazingachannel has many hippos that attracttourists .
8. **L. Albert.**
9. It is a rift valley lake formed by faulting.
10. Its major inland port is Butiaba.

**ACTIVITY**

1. *What is a lake?*
2. *Write down three types of lakes found in Uganda*
3. *Why is Kyoga a swampy lake?*
4. *Why are the shores of lake Victoria densely populated?*
5. *Name any two manmade lakes found in Uganda*
6. *Write down one reason why rift valley lakes have salty water.*
7. *Mention two human activities done on lake Victoria*
8. *How is Port Butiaba different f*rom Port Mombasa?

**Importance of lakes**

1. They provide water for irrigation, industrial and domestic use.
2. Lakes are fishing grounds.
3. Lakes are tourist attractions.
4. Lakeshelp in rainfall formation.
5. Lakes provide water transport.
6. Some lakes are source of minerals e.g. salt from L. Katwe and Petroleum/oil in Lake Albert.
7. They are habitats to aquatic animals e.g. Fish crocodiles, hippos etc.

**Disadvantages of lakes.**

1. Lakes occupy land for settlement.
2. Lakes harbor dangerous aquatic animals e.g. crocodiles, snakes.
3. Floods may occur .
4. They harbor disease vectors.

**Problems facing lakes**

1. Pollution from industries.
2. Water weeds e.g. water hyacinth.
3. Low water levels due to drought.

**RIVERS OF UGANDA**

1. A river is a long natural stream of water flowing in achannel
2. Most rivers begin from highland areas because:

* Highland areas receive heavy rainfall.
* Some mountains peaks have snow, which melts down to create rivers.

**Terms associated with rivers:**

1. **A source** is where a river starts flowing.
2. **A mouth** is where a river ends.
3. **A watershed** is a stretch of highland separating two or more rivers.
4. **A basin** is an area drained by a river and its tributaries.
5. **An estuary** is an open mouth of ariver.
6. **A delta** is a mouth of a river made up of distributaries.
7. **A distributary** is asmall river leaving the main one.
8. **A tributary** is a small river joining the main one.
9. **A confluence** is a place where two or more rivers meet.
10. **Meanders** are bends of rivers.

**Pictures and videos showing stages of a river**

**Themain rivers of Uganda**

1. **River Nile.**
2. It is the longest river in Uganda.
3. It begins from Lake Victoria in Ugandaas its source and ends in Mediterranean Sea in Egypt.
4. The Nile flows northwards because the North is on a lower altitude.
5. The Nile has two parts in Uganda (Victoria Nile and Albert Nile )
6. Water falls on River Nile include,

* Murchison falls
* Bujagalifalls
* Kalagala falls

1. Nile valley countries (Uganda, South Sudan, Sudan, Egypt)

**River Achwa**

It is a tributary of the Nile found in the northern part of Uganda.

**River Katonga.**

It joins L. George to L. Victoria.

**River Semliki**

It flows into LakeAlbert

It has a delta and oil deposits.

**Importance / advantages of rivers to man.**

1. They help in generation of Hydro Electric Power.
2. Rivers provide water transport.
3. Rivers help in formation of rainfall.
4. Rivers are homes of aquatic animals.
5. Rivers are sources of fish.
6. Rivers provide water for irrigation,industrial and home use.
7. Some rivers have mineral deposits e.g. R. Semliki and R. Nile have oil.

**Disadvantages of rivers.**

1. Some rivers destroy life and property when they flood.
2. Waterfalls and rapids hinder navigation.
3. Rivers hinder the development of roads and railways.
4. Rivers are breeding places for vectors.

**Reasons why some rivers are not navigable.**

1. Some rivers have waterfalls.
2. Some rivers have suds (floating vegetation/ Islands) / water weeds.
3. Existence of dams on same rivers.
4. Some rivers have rocks.
5. Dangerous aquatic animals.

**N.B.** Some of the power stations found on R. Nile in Uganda are:

1. Nalubaale power station
2. Bujagali power station
3. Kiira power station

**Uganda exports her hydro electricity to**

1. Kenya
2. Tanzania
3. Rwanda

**Activity**

1. *How Owen is falls dam (Nalubale) important to Uganda?*
2. *Mention any other dam which has been built on river Nile*
3. *Give two reasons why water transport is sometimes difficult on Victoria Nile*
4. *How are rivers a danger to people who live near them?*
5. *Name the water body that joins lake George to lake Victoria*
6. *Define the following terms*

*a) Delta*

*b) Tributary*

*c) Source*

*7. State one reason as to why river Nile flows north wards*

*8. Name two countries where Uganda exports her hydro electricity*

**INFLUENCE OF PHYSICAL FEATURES ON;**

1. Climate

-mountains influence the formation of relief rainfall.

-lakes influence the formation of convection rainfall.

-plains influence the formation of cyclonic rainfall.

1. Vegetation

-Some lakes have swampy surroundings

- On a mountain, dense vegetation is found on the foothills and vegetation becomes scanty towards the top.

- There is swamp vegetation along rivers.

-The rift valley has savanna grassland.

1. Animals and people

-water bodies are habitat of some animals.

-People carry out fishing on water bodies.

-People carry out farming on slopes of mountains.

**Fishing in Uganda**

1. Fishing is the catching of fish from water bodies.
2. People who catch fish are fishermen.
3. People who sell fish are fishmongers.
4. Sources of fish are: lakes, rivers, swamps and ponds etc.
5. The largest fish caught is the Nile perch
6. Other types of fish are Catfish, Lungfish, mudfish, Silver fish etc.
7. Fish farming is becoming common in Uganda i.e. keeping of fish in ponds.

**Methods of catching fish.**

1. By using fishing nets
2. By using fishing spears.
3. By using baskets
4. By using hooks.
5. By digging

**Methods of preserving fish**

1. By smoking
2. By salting
3. By sun drying
4. By tinning / canning
5. By freezing

**Uganda exports her fish (fillets) to:**

1. Sudan
2. Britain
3. D.R Congo
4. Kenya
5. France
6. Rwanda
7. Ger many
8. Egypt.

**Importance of fish to man.**

1. Fish is eaten
2. It’s a source of income.
3. Fishing creates an employment
4. Fish is source of medicine
5. Fish bones are used for making fertilizers and animals’ feeds.

**Fish processing factories in Uganda.**

1. Gomba
2. Masese
3. Kasenyi
4. Katunguru

**N.B.**

**UFEL**– Uganda Fish Enterpises Limited

**ACTIVITY**

1. *What is fishing?*
2. *Write down two traditional methods of catching fish*
3. *Mention any two modern methods of preserving fish*
4. *Name the commonest type of fish caught in Uganda*
5. *How is a fisher monger important to people in society?*
6. *Why is the method of preserving by tinning not common in Uganda?*
7. *How do mountains influence the climate of an area?*

**Problems facing the fishing industry**

1. Over fishing
2. Poor storage facilities
3. Water pollution
4. Poor system and means of transport.
5. Existence of water hyacinth/weeds
6. Poor fishing tools etc.

**Solutions to problems facing the fishing industry.**

1. Improve on roads
2. Storage facilities should be improved.
3. Government should find market for fish overseas/outside.
4. Removing the water hyacinth by harvesting
5. The government can also give soft loans to fishermen to help them acquire good storage and transport facilities etc.

**Problems caused by the waterweeds**.

1. It makes navigation difficult
2. It harbours dangerous aquatic animals e.g. snakes.
3. It suffocates fish.
4. It makes water dirty
5. It tears fishing nets.
6. It covers fishing grounds.

**How to fight the water hyacinth**

1. By removing using hands (i.e. manual methods)
2. By removing using machines/harvesters (mechanical method)
3. By spraying with chemicals (chemical method)
4. By using other living organisms (Biological method)

**Uses of the water weeds**

1. It is used for making baskets.
2. It is used for making manure.
3. It is used for making animal feeds.
4. It is used for mulching gardens

**Activity**

1. *Write down two problems facing the fishing industry*
2. *How do most people in Uganda preserve fish?*
3. *How is smoking of fish dangerous to the environment?*
4. *Explain why there are few trees near the fishing areas in Uganda*
5. *Suggest two main problems facing the fishing industry in Uganda*
6. *Outline two possible solutions to the above problems*
7. *Give two ways in which water weeds affect fishing in Uganda*
8. *How can the water weed be useful to farmers?*

**TOPIC 3**

**THE CLIMATE OF UGANDA**

**LEARNING OUTCOME**

**The learner is able to understand and appreciate the value of climate to all living things and explain ways of maintaining climate for better health and harmonious living.**

1. Climate is the average weather conditions of a place recorded for a long period of time.
2. Climatology is the study of climate.
3. There are two aspects (components) of climate.

* Temperature
* Rainfall

1. **Isotherms** are lines drawn on a map to show places with the same temperature.
2. **Contours** are lines draw n on a map to show places with the same altitude.
3. **Isobars** are lines draw n on a map to show places with the same pressure.
4. **Isohyets** are lines drawn on a map to show places with the same rainfall.

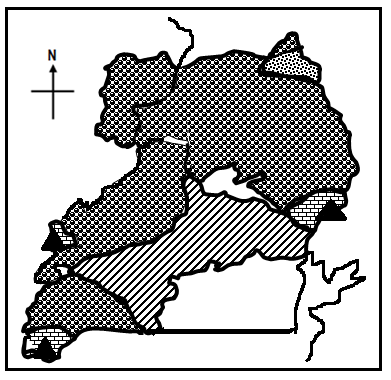
**CLIMATIC REGIONS OF UGANDA**

A climatic region refers to an area covered by a particular type of climate and the climatic regions of Uganda are:

1. Equatorial region
2. Tropical region
3. Semi-Arid or semi-desert region.

iv) Montane

**A MAP OF UGANDA SHOWING CLIMATIC REGIONS**



**Key**

|  |  |
| --- | --- |
|  | Equatorial region |
|  | Tropical region |
|  | Montane |
|  | Semi arid |

**TYPES OF CLIMATE.**

**Equatorial climate**

1. Equatorial climate is described as “hot and wet” throughout the year.
2. This climate is mostly experienced around Lake Victoria.
3. The highest rainfall is received in the months of March and September because that is when the sun is overhead the equator.

Economic activities in Equatorial region are:

* Lumbering (main)
* Plantation farming/Crop growing
* Tourism
* Fishing

**Tropical climate**

1. This region experiences “Long wet seasons with short dry period (spell)”.
2. The most part of Uganda experiences tropical climate.

Economic activities done in the tropical,regions are:

* Tourism (main)
* Arable farming /Crop growing
* Cattle keeping
* Bee keeping

1. Most national game parks of Uganda are found in the tropical region /Savannah vegetation because:

* Savannah has plenty pasture for the wild animals.
* Savannah is open grassland – allowing animal to roam freely.
* Savannah provides shelter/protection to wild animals.

**Semi – desert or semi –arid.**

1. The semi –arid climatic region is experienced in the North Eastern /Karamoja region (Kotido, Kaabong, Nakapiripirt and Marot)
2. And also the Ankole corridors (Nakasongola, Lyantonde, Sembabule and Kayunga).
3. The region is generally dry with little rainfall

**Economic activities in semi-desert areas**

1. Cattle keeping (main)
2. Tourism i.e.Kidepo valley national park.
3. Growing of quick maturing and drought resistant crops like sorghum, millet.

**NB:**

1. However, irrigation can be encouraged by the government to increase crop production in semi-desert areas of Uganda.
2. The Karimojong live in semi-arid areas of Uganda that is why they practice nomadic pastoralism.

**Problems faced by the Karimojong.**

1. Shortage of water.
2. Shortage of pasture
3. Cattle of rustling
4. Keep poor breeds of cattle.

**Solutions to problems facing the Karimojong**

1. Government should provide valley dams to provide water for the animals.
2. Providing improved veterinary services.
3. Provision of security to curb cattle rustling.

**Activity**

1. *What is climate?*
2. *Mention the two aspects of climate*
3. *Define the following terms*

* *isotherms*
* *isohyets*

1. *Describe the equatorial climate.*
2. *What type of climate is found in Karamoja region?*
3. *Why does Karamoja region receive little rainfall?*
4. *Write down two major economic activities done in Equatorial region*
5. *What is cattle rustling?*
6. *Write down two problems faced by Karimojong in their activities*

**Factors that influence climate**

1. **Latitude**
2. This is the distance of am place North or South from the Equator.
3. Areas near the equator are hotter than those far away from it.
4. **Prevailing winds.**

When winds blow, they usually either bring rainfall or dry conditions.

1. **Altitude**
2. Altitude is the height of land above sea level.
3. The higher the altitude, the cooler the area and lower the altitude, the warmer the area.
4. **Vegetation cover.**
5. Areas with thick vegetation receive heavier rainfall that those with poor vegetation.
6. Forests release water vapour in the atmosphere through transpiration, which helps in the formation of rainfall.

**Distance from water bodies.**

Areas around water bodies receive more rainfall than areas that are far from the water bodies.

1. **Human activities**

Human activities like massive cutting of trees to get land for farming, industrialization, settlement, swamp draining etc leads to rainfall reduction drought), desertification and global warming.

**NB: Global warming.**

1. Global warming is the increase of world temperatures.
2. Global warming is a result of increased carbon dioxide in the atmosphere.
3. Man’s activities responsible for the increase of carbon dioxide and other pollutants in the atmosphere are:

* Massive cutting down of trees.
* Greenhouse
* Industrialization.

**Effects of global warming.**

1. Leads to the melting of snow.
2. Causes abnormally heavy rainfall (El-Niño)

**Influence of physical features on climate**

-Mountains influence the formation of relief rainfall.

-Lakes influence the formation of convectional rainfall.

-Plains influence the formation of frontal rainfall.

**Activity**

1. *Write down two factors that influence climate of an area*
2. *Describe the winds that bring rain to an area*
3. *What is global warming?*
4. *Explain how altitude influences climate of an area*
5. *How does global warming affect climate of an area?*
6. *Write down two human activities that are friendly to climate*

**Types of rainfall**

1. **Relief rainfall**
2. It is received near mountains or highland areas.
3. Relief (Orographic) rainfall is received in mountainous area f Uganda e.g.

* Slopes of Mt Elgon / Bugisu
* Slopes of Mt. Mufunbiro / Kigezi.
* Slopes of Mt. Rwenzori.

**Examples of districts that receive relief rainfall are:**

1. Mbale
2. Kabale
3. Kisoro
4. Kapchorwa
5. Kasese
6. Bundibugyo.

**Formation of relief rainfall**

***Clouds***

***LEE WARD SI*D*E***

***Rainfall***

***WIND WARD SI*D*E***

***Dry air descends***

***Warm air rises***

***Mountain***

1. **Conventional rainfall**

In Uganda convectional rainfall is received in areas near water bodies and forests.

Examples of districts that receive convectional rainfall are:

* Wakiso
* Kalangala
* Kampala
* Jinja
* Iganga
* Buvuma

**Formation of convectional rainfall**

**Condensation**

**form clouds**

**Clouds**

**Sun rays heat the**

**water and plants**

**Land**

**Lake**

1. **Cyclonic (Frontal) rainfall**

It’s experienced in flat areas of Uganda e.g. Teso – sub region and Karamoja region.

It occurs when warm air masses meet with cool air masses.

**Formation of cyclonic rainfall**

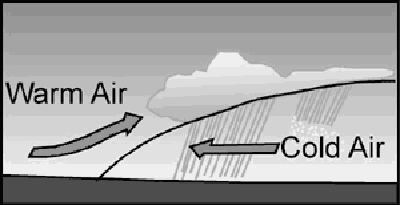
**Clouds**

**Advantages of rainfall**

1. Rainfall provided water to people for domestic use.
2. Provides water to crops to grow well.
3. Rainfall provides water to both domestic and wild animals.
4. It helps to maintain the water cycle.

**Disadvantages of rainfall**

1. May cause floods, which destroy people’s property.
2. Too much rainfall can cause death to both plants and animals.
3. Too much rainfall encourages landslides that may kill people or destroy their property.
4. Too much rainfall can make transport difficult by rendering the roads impassable.



**Activity.**

1. *Mention the three types of rainfall*
2. *Which type of rainfall is experienced on mountain slopes/*
3. *Which type of rainfall is experienced by Oscar who lives in Nakawa near lake Victoria*
4. *Which rainfall is experienced in Karamoja region?*
5. *Why is the wind ward side of a mountain the best side for a farmer to settle?*
6. *Write down two advantages of rainfall to people*
7. *How may rainfall be dangerous to people?*

**BREEZE.**

A breeze is a gentle movement of air/wind from a cool region (an area of high pressure) to a warm region (an area of low pressure)

**Sea breeze**

1. This is the movement of air/wind from a water body to the land.
2. Sea breeze takes place during daytime.
3. The sea breezes are moist, therefore, they bring rainfall.

**The diagram showing sea breeze**

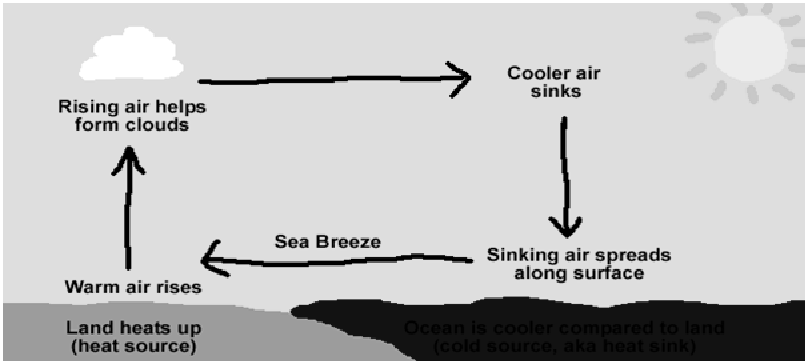
****

**Cool air moving to land**

**Land breeze**

1. This is the movement of cool air/ wind from the water body.
2. It takes place at night.
3. At night, the land cools faster than the sea.
4. The warmer air over the sea rises and then cooler air/wind over the land blows towards the sea to replace the warm air that has risen.

**The diagram showing land breeze**



**Cool air moving to sea**

**Land**

**sea**

**Influence of climate on human activities**

1. Areas with reliable rainfall encourage people to carry out crop growing.
2. Areas that are dry, with unreliable rainfall mainly practice nomadic pastoralism e.g the Karimajong in North Eastern Uganda.
3. There are few people settling in areas with unreliable rainfall.
4. It determines the types of clothes people wear; for example, in hot areas people wear light and white clothes.
5. It determines the type of crops to be grown in a particular place for example in semi arid areas farmers grows drought resistant crops.

**Activity**

1. *How are sea breezes important to farmers?*
2. *At what time does a sea breeze take place?*
3. *Why does water move from the water body to the land during a sea breeze?*
4. *How does climate influence people’s way of dressing?*
5. *How does climate influence the economic activities of an area?*
6. *Name two drought resistant crops grown in dry areas of Uganda*

**FARMING IN UGANDA**

1. Farming is the growing of crops or rearing of animals.
2. Farming is the main economic activity of Ugandans.
3. It is the backbone of Uganda’s economy.
4. There are different farming activities and different types of crops grown in different climatic conditions.

**Factors influencing farming.**

1. Fertility of the soil.
2. Reliability of rainfall
3. Availability of water sources for irrigation and for animals.
4. Market for the farm produce.
5. Availability of capital.
6. Availability of labour force.

**Importance of farming.**

1. Source of raw materials.
2. Provides employment.
3. Source of income.
4. Source of food for people and animals.

**Problems affecting agriculture.**

1. Poor storage facilities.
2. Price fluctuations.
3. Pests and diseases.
4. Poor transport facilities.
5. Shortage of capital.
6. Droughts
7. Shortage of land.

**Solutions to the problems**

1. Government should provide loans and through plan for modernization of agriculture. (P.M.A) and National Agricultural Advisory Services (NAADS).
2. Spraying the crops to kill the pests and to control diseases.
3. Planting improved disease and pest resistant varieties of crops.
4. Constructing enough modern storage facilities to control storage pests and to keep products for a longer period until they get reasonable market.
5. Encourage farmers to use modern farming methods e.g. irrigation.

**Activity**

1. *What is farming?*
2. *Why is farming regarded as the backbone of Uganda’s economy?*
3. *Write down two factors influencing climate of an area*
4. *Mention any three ways in which farming is important to pupils at St Francis priamary School.*
5. *Write down any three problems affecting agriculture in Uganda*
6. *Write NAADS in full*
7. *How is NAADS improving on farming in Uganda today*
8. *State any two ways how the government can improve on farming in Uganda*

**Types of crops.**

**Cash crops.**

1. These are crops grown for sale.
2. There are two types of cash crops.

* Traditional crops.
* Non – traditional crops.

1. **Traditional cash crops.**

Traditional cash crops are crops that have been grown for sale for long time, e.g. coffee, cotton, tea, sugarcane, wattle, tobacco e.t.c.

**Coffee**

1. Coffee is a perennial crop.
2. It is the leading cash crop of Uganda.
3. There are three types of coffee grown in Uganda.

* Arabica coffee
* Robusta coffee
* Clonal coffee

1. **Arabica coffee**

It grows well on the highland areas or slopes of mountains that have volcanic soil e.g. Mt. Elgon, Mt. Mufumbiro

**Conditions for Arabica coffee**

1. Presence of deep fertile volcanic soils.
2. Cool temperatures/high altitude
3. Heavy rainfall with good drainage.
4. **Robusta coffee**

Robusta coffee grows well in lowlands areas e.g Buganda region

**Conditions for Robusta coffee.**

1. Warm temperatures.
2. Fertile soils.
3. Reliable rainfall
4. **Clonal coffee**
5. This a recently introduced type of coffee.
6. It is called clonal because it was got by planting clones instead of seeds.

**Advantages of clonal coffee over other types**

1. It matures faster
2. It’s more resistant to diseases.
3. It has higher yields.
4. It can grow in almost all climatic conditions except semi-arid areas.

**Importance of coffee.**

1. For beverage
2. Coffee husks can be used as manure, mulch and as litter in poultry.
3. Source of income for both local and foreign exchange earners.
4. Provides employment.
5. Coffee stimulates industrial growth.

**Diseases of coffee**

1. Coffee wilt disease.
2. Coffee berry borer.

**Cotton growing in Uganda.**

1. Cotton is afibre crop grown in Uganda.
2. Kenneth Borup introduced cotton seeds in Uganda in 1903.
3. Cotton is widely grown in the districts of Pallisa, Tororo, Kumi, Soroti, Apac, Lira, Gulu, Nebbi and Kasese

**Requirements of cotton**

1. Moderate rainfall.
2. High temperatures
3. Fertile well drained soil.

**Importance of cotton.**

1. Cotton is used to make threads.
2. Cotton is araw material in textile industries.
3. Cotton growing provides employment.
4. Cotton seeds can be made from its seeds.
5. Its seeds are used for making soap.
6. Textile industries that manufacture cloth.

Other fibre making cloths are;

1. **Naturalfibres**
2. Wool – (sheep)
3. Mohair – (goats)
4. Silk – (silk worms)
5. **Artificial fibres (Synthetic fibres)**
6. Rayton
7. Nylon
8. Polysester

**Why cotton production has gone down in Uganda.**

1. Low cotton prices
2. Fluctuation of cotton prices.
3. High competition from natural/synthetic fibres that has reduced its demand.
4. Cotton pests and diseases.

***Activity***

1. *What are cash crops?*
2. *What are traditional cash crops?*
3. *Mention any four main cash crops of Uganda*
4. *Mention any three types of coffee grown in Uganda*
5. *State any one factor that favour growing of Arabica coffee*
6. *State any two importance of coffee to people*
7. *State any two importance of cotton to people*
8. *Which type of coffee is mainly grown in Central(Buganda) region*:

**Tea growing in Uganda**

Tea growing is another perennial beverage crop in Uganda, which was introduced by Indians/Asians in Uganda in 1990.

Tea growing districts in Uganda are:

1. Kabarole
2. Mukono
3. Rukungiri
4. Kamwenge
5. Kabale
6. Nebbis

**Examples of Tea Estates in Uganda are.**

1. Rwenzori Highland
2. Kayonza
3. Igara
4. Kasaku
5. Musizi tea estate.

**Conditions necessary for tea growth**

1. It needs fertile well drained acidic
2. Well aerated soils.
3. Cool temperatures
4. Well-distributed rainfall.

**Importance of tea.**

1. It is a source of income to farmers.
2. Earns foreign exchange to
3. It creates employment for people.
4. It’s used for making beverages.

**Tobacco growing in Uganda.**

Tobacco growing areas in Uganda are:

1. West Nile region (Arua, Nebbi, Moyo, Adjumani)
2. Bunyoro region (Hoima, Masindi and Buliisa)
3. South – Western Uganda (Rukungiri and Kabale)

**Methods of tobacco curing.**

1. Flue curing: Using heat from a furnace, giving it a desirable aroma.
2. Air curing: Using air to dry tobacco leaves.
3. Fire curing: Using that emits smoke to the hanging leaves.

**Note:** Flu curing leads to deforestation and causes air pollution.

**Importance of tobacco.**

1. For making cigarettes, cigar, pipes.
2. Tobacco growing in an employment.
3. Tobacco is a source of income to farmers.

**Sugarcane growing in Uganda.**

1. Sugarcane is mainly grown around L. Victoria.
2. NanjiKhalidas Mehta was the first Asian/Indian to build a sugar factory in Lugazi in 1924.

The main sugarcane plantations in Uganda are:

1. Kakira Sugarcane plantation in Jinja.
2. Kinyara Sugarcane plantation in Masindi
3. Sang Bay Sugarcane plantation in Rakai.
4. Lugazi Sugarcane plantation in Mukono (Sugar Corporation of Uganda LTD SCOUL)

**Uses of Sugarcane**

1. Sugar
2. Sweets
3. Spirits
4. Jaggery
5. Molasses
6. Sugar paper
7. Manure

**Activity**

1. *Write down two districts in Uganda that grow tea on a large scale*
2. *Mention any two conditions that are necessary for tea growing*
3. *Write down two importance of tea growing to people*
4. *Which two districts in Uganda are famous for tobacco growing?*
5. *Why doesn’t the ministry of health encourage tobacco growing?*
6. *How important is tobacco to people?*
7. *What do you remember about the following?*

*-NanjiKhalidas Mehta*

*-MuljibhaiMadhivan*

**Pyrethrum**

1. Pyrethrum is widely grown n Kabale district.
2. It is used for making insecticides.

**Wattle**

1. It is also widely grown in Kabale district.
2. The bark of wattle trees is used to make tannin that is used for tanning leather.
3. Therefore, tannin is a raw material for leather tanning industry.

**Oil palm**

1. It has been introduced in Kalangala district.
2. Oil palm seeds are used for making cooking oil, soap, margarine etc.

**Barley**

1. It is widely grown in Kapchorwa and Bukwo districts.
2. It is used for making beers.

**Non-traditional cash crops**

Non-traditional cash crops are the drops, which were formerly grown for food but are now grown for both food and sale e.g. bananas, cassava, beans, vanilla, maize, peas, potatoes e.t.c.

**Cocoa**

It is aperennial crop and it does well in the districts of Mukono and Bundibugyo.

**Wheat**

It is grown in Kapchorwa, Bukwo and Kabale. It is used for making baking flour.

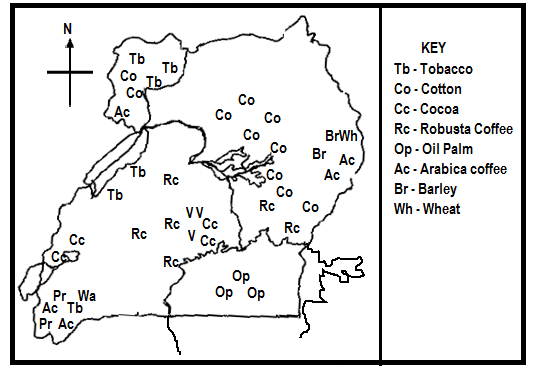
**Vanilla**

It is a perennial crop

It grows well in the districts of Mukono, Kabale, Butambala etc.

It is used as a beverage.

**Map of Uganda showing different crops**



**Human activities that can affect climatepositively**

1. Afforestation
2. Swamp conservation
3. Agro-forestry
4. Re-afforestation

**Human activities that can affect climate negatively.**

1. Charcoal burning
2. Industrialization
3. Fish smoking
4. Lumbering
5. Brick making
6. Over grazing / over stocking
7. Shifting cultivation
8. Tobacco curing
9. Drainage of swamps.

**Effects of human activities on climate**

1. Drought
2. Desertification
3. Global warming
4. Abnormally heavy rains (El Nino)
5. Unpredictable climate changes

**Problems associated with wet and dry areas**

1. Wet areas face a problem of floods
2. Wet areas that are hilly face a problem of soil erosion.
3. Too much rainfall in wet areas may destroy crops.
4. Dry areas face a problem of water shortage.
5. Prolonged drought leads to famine.
6. Prolonged drought leads to shortage of water and pasture for animals.

**Possible solutions**

1. People should not settle in swampy areas to avoid floods.
2. People terrace hilly areas to control soil erosion.
3. The government should construct valley dams to provide water to people and animals in dry areas.
4. Encouraging people to plant trees to improve on climate.

**Activity**

1. *Write down two problems faced by wet areas*
2. *What is the industrial use of pyrethrum?*
3. *Name one district in Uganda famous for oil palm growing*
4. *Write down two human activities that affect climate negatively*
5. *Write down two human activities that influence climate positively*
6. *How do dry conditions affect pupils in St Francis PrimarySchool*

**TOPIC 4**

**THE VEGETATION OF UGANDA**

**LEARNING OUTCOME**

**The learner is able to show, understand and appreciate the importance and value of vegetation for better living.**

Vegetationis the plant cover of an area.

**Types of vegetation**

1. Natural vegetation
2. Planted vegetation
3. **Natural vegetation**
4. This the plants cover that grows on its own.
5. Examples of natural vegetation are:

* Natural forests
* Swamps
* Savannah grasslands.
* Shrubs.

1. **Planted Vegetation**

This is the plant cover that is planted by man e.g

1. Planted forests
2. Crops
3. Flowers
4. Planted grass.

**Factors that influence distribution of vegetation.**

1. **Rainfall**

Areas that receive heavy rainfall have thick vegetation whereas areas that receive little rainfall have poor / sparse vegetation.

1. **Soil**
2. Areas with fertile soils have thick forests/vegetation compared to areas with poor soils, which have poor vegetation and short grass.
3. Soils in forested areas are very fertile because they get fertility from the leaves that fall from the trees.
4. **Human activities.**
5. There are some activities of man that promote the growth of vegetation while others degrade vegetation.
6. Human activities like massive cutting down of, trees to get land for agriculture and settlement, careless waste disposals, overgrazing, road construction, mining, industrialization, swamp reclamation and lumbering leads to degradation of vegetation.
7. Human activities like agro-forestry, afforestation and re-afforestation conserve and promote the growth of vegetation.
8. **Government policy.**

Government cangazette as area as a forest reserve or can degazzette an area for other economic activities.

**e) Altitude.**

On a mountain, vegetation tends to be dense on the foot hills and becomes scanty towards the mountain top.

**Activity**

1. *What is vegetation?*
2. *Which vegetation covers most parts of Uganda*
3. *Mention the two types of vegetation*
4. *Name the most important factor that influences vegetation distribution*
5. *Identify any two factors that influence vegetation distribution*
6. *Why are areas around Lake Victoria covered by thick forests?*

**Ways vegetation influences human activities e.g.**

1. **Tropical rain forests (Equatorial forests)**
2. They are found within the Equatorial region e.g.Mabira forest, Budongo etc.
3. Tropical rain forests are evergreen because they receive heavy rainfall throughout the year.

**Characteristics of Tropical rain forests.**

1. The trees are tall and huge.
2. The trees have thick undergrowth.
3. The trees have buttress roots.
4. The trees form canopies.
5. The trees have hard wood.

**Examples of trees found in equatorial forests are:**

1. Mvule
2. Musizi
3. Mahogany

**Economic activities done in the tropical rainforests.**

1. Lumbering
2. Tourism
3. Crop farming.
4. **Savannah vegetation**
5. Savannah vegetation sometime is called tropical grassland.
6. Savannah vegetation covers the most parts of Uganda.
7. Most national game parks of Uganda are found in the Savannah vegetation because:

* Savannah has plenty/enough pasture for the wild animals.
* Savannah is an open grassland-allowing animals to roam freely.
* Savannah provides shelter/protection to wild animals.

**Characteristics of savannah vegetation**

1. It has a lot of grass with scattered trees.
2. The trees shed off their leaves in the dry season.

**Economic activities done in savannah regions.**

1. Tourism
2. Crop farming
3. Grazing cattle
4. Bee farming.
5. **Semi-desert vegetation**
6. It is found in Karamoja Northeastern region.
7. It consists of short grass, thorny bushes and stunted trees.

**Economic activities carried out in the region**

1. Nomadic pastoralism
2. Tourism
3. Irrigation farming
4. **Swamps/wetlands**
5. These are waterlogged areas, covered with vegetation.
6. It is found along rivers Katonga, river Nile, around lakes Victoria, Kyoga.

**Importance of wetlands (swamps)**

1. Swamps help in the formation of rainfall.
2. Swamps are habitat / homes of wild life.
3. Swamps are fishing areas e.g. Mud fish.
4. Swamps control floods
5. Sores of raw materials for handcraft / local industries.
6. Swamps attract tourists.
7. Swamps filter water.
8. Some crops are grown in swamps e.g. rice, sugar cane.

**Crops grown in swamps include**

1. Rice
2. Sugarcane
3. Yams
4. Sweet potatoes
5. Maize
6. Vegetables.

**Activities done in swamps.**

1. Crop growing
2. Mining e.g. clay, sand.
3. Tourism
4. Collection of craft material
5. Fishing e.g. Mudfish.

**Problems/dangers facing swamps.**

1. Growing crops in wetlands.
2. Industrialization
3. Dumping of wastes in swamps i.e. (domestic and industrial)
4. Brick making in swamps
5. Fire out breaks, as fire is a danger to the wildlife there.
6. Sand mining.
7. Construction of infrastructure in wetlandse.g. housing, roads, railway lines etc.

**Reasons why people drain swamps.**

1. To create land for settlement
2. To create land for crop growing
3. To create space for industrialization.
4. To create land for construction of infrastructuree.g roads.

**Dangers of draining swamps.**

1. It leads to destruction
2. It leads to prolonged droughts.
3. It leads to destruction of animal habitats.
4. It leads to environmental degradation.
5. It lowers the water table.

**Activity**

1. *Write down two characteristics of tropical rain forests*
2. *What is a swamp?*
3. *Write two dangers facing swamps*
4. *How are swamps important to people?*
5. *Mention two crops grown in swamps*
6. *How is it dangerous to drain swamps?*
7. *Mention two activities done in swamps*
8. *Why is savannah grassland suitable for tourism?*

**NB:**

The National Environment Management Authority (NEMA)

Established in 1996 to oversee the protection and conservation of Uganda’s environment.

**Importance of NEMA.**

1. NEMA protects or conserves the environment.
2. Educate the public about and values of conserving environment.
3. Evicts wetland encroachers.

The ministry of water and Environment is responsible for the protection of environment in Uganda.

**Forests of Uganda.**

A forest is a group of trees growing together.

**Types of forests**

1. Plantation/planted forests are forests planted by man.
2. Natural forests are forests that grow on their own.

**The main plantation forests in Uganda are.**

1. Lendu forest - Zombo
2. Mugunga forest
3. Namanze forest - Wakiso
4. Nyabyeya forest - Masindi

* Examples of trees in plantation forests include; pine, cypress, eucalyptus etc.
* Plantation forests provide soft wood.

**Importance of soft wood.**

1. For making paper
2. For making pencils
3. For making soft boards.
4. For making matches.

**Natural forests.**

1. Natural forests are forests that grow on their own.
2. Natural forests grow in areas that receive heavy rainfall.
3. Natural forests mainly have hard wood.

**The main forests of Uganda are.**

1. Mabira forest inBuikwe
2. Budongo forest inMasindi
3. Maramagambo forest in Bushenyi
4. Kibale forest in Kabalore
5. Kasyoha –Kitomi forest in Kabale
6. Bwindi impenetrable forest in Kabale
7. Malabigfambo forest in Rakai
8. Semliki forest in Bundibugyo
9. Wiceri forest in Gulu
10. Zoka forest in Adjumani
11. Ssese Island forest in Kalangala.

**Importance of forests.**

1. Forests are habitats for wild life like the mountain gorillas in Bwindi impenetrable forest and chimpanzees.
2. Forests help in the formation of rainfall
3. Forests are source of timber
4. Forests are tourist attractions.
5. Forests provide herbs for medicine
6. Forests control soil erosion.
7. Forests control the expansion of hot desert conditions.
8. Forests provide raw materials for the pulp (paper) industry.

**Problems of forests.**

1. They harbor disease vectors e.g. tsetse flies, mosquitoes.
2. It hinders transport as they make construction of roads difficult.
3. It is hiding place for rebels.
4. It harbours pests and dangerous wild animals e.g. snakes, leopards.

**Human activities that can lead to destruction of forests.**

1. Lumbering
2. Through over grazing
3. Through construction of infrastructure.
4. Through mining
5. Through fish smoking
6. Through tobacco curing
7. Through brick burning
8. Through charcoal burning.

**Conservation of forests.**

This is the maintaining of the original state of the forest.

**How to conserve forests.**

1. Through reforestation
2. Through Agro – forestry
3. Through mass education
4. By using an alternative source of energy e.g. biogas, electricity.
5. By employing more forest rangers to guard forests.
6. Through enacting laws and punishing people who destroy forests

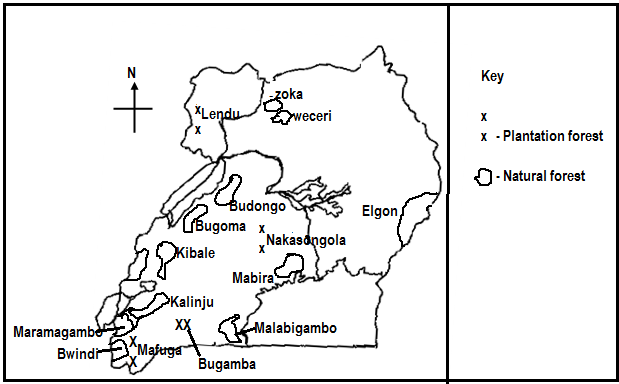
**Relationship between people and vegetation distribution**

1. People settle near forests so as to get food e.g. through hunting
2. Some forested areas are sparsely populated because they are protected.
3. Swampy areas are sparsely populated because they are breeding grounds for mosquitoes, they flood during heavy rains.
4. Places with scrub and thicket vegetation are sparsely populated because they receive little rainfall.
5. Vegetation zones on mountain slopes are densely populated due to high rainfall and fertile soil that support farming.

**Activity**

1. *What is a forest?*
2. *Mention any two types of forests*
3. *What is forest conservation?*
4. *How do we conserve forests?(Give two ways)*
5. *Mention three human activities that can lead to destruction of forests*
6. *What problems do neighbours of Mabira forest face(give two)*
7. *How are forests important to traditional healers?*
8. *How is soft wood important to people?*
9. *Write NEMA in full*
10. *State any two roles of NEMA*

**NATURAL AND PLANTATION FORESTS OF UGANDA**



**TOPIC 5**

**NATURAL RESOURCES IN OUR COUNTRY.**

**LEARNING OUTCOME**

**The learner is able to know the natural resources in their immediate and distant environment, and how people use them to earn a living and analyse bad practices that destroy natural resources.**

Natural resources are features in the environment that aman can use to earn a living.

**Examples of natural resources.**

1. Land
2. Minerals
3. People
4. Water
5. Plants
6. Animals
7. Climate

There are two types of natural resources.

1. **Renewable resources**

Renewable resources are resources that can be replaced once used.

**Examples of renewable resources are:**

1. Water
2. Soil
3. Air/Wind
4. **Non-renewable resources**

Non-renewable resources are resources that cannot breplaced once used.

An example of non-renewable resource is minerals (oil, gold, silver etc)

**Land**

Land is used in the following ways.

1. For crop growing
2. For mining
3. For rearing animals
4. For brick making
5. For building houses, industries, Burial etc.
6. Foe construction of roads etc.
7. For settlement.

**How land is misused?**

1. Land pollution
2. Over grazing
3. Poor methods of farming
4. Bush burning
5. Mining (extraction of minerals)
6. Over cultivation leading soil exhaustion

**Effects of misuse of land.**

1. Soil erosion
2. Loss of soil fertility (soil exhaustion)

**Ways of protecting / conserving land.**

1. Through bush fallowing (allowing land to rest)
2. Through crop rotation.
3. By terracing
4. By contour ploughing
5. By strip cropping
6. By keeping the number of animals the land can accommodate.

**Plants/vegetation.**

Plants can be natural or planted and they are important for tourism, timber, food, grazing, fruits etc.

**Animals**

1. Animals are either domestic or wild animals.
2. Domestic animals are kept at home while wild animals live in the brush (wild)

**How animals are used to earn a living.**

1. Animals provide meat.
2. Animals provide milk.
3. Animals provide hides and skins.
4. Some animals provide security/protection.
5. Domestic animals bring income.
6. Wild animals are tourist attraction hence foreign exchange..

**Tourism**

This is the movement of people to visit interesting places for pleasure or study purposes.

**Tourist attractions** are things that tourists come to visit.

**Examples of tourist attractions in Uganda are.**

1. Wildlife (National game parks)
2. Physical features e.g. mountains, lakes, rivers, rift valleys etc.
3. Historical sites e.g. stone Age sites, museum, etc.
4. Culture e.g.Kasubi tombs, Kabaka’s coronation site (Naggalabi), Mparo tombs etc.
5. Good climate, the favorable climate of Uganda attracts many Europeans who come to enjoy the tropical conditions during winter season e.g. sun bathing.

**Tourism is referred to as an industry because:**

1. It generates income.
2. It creates employment.
3. It develops remote areas.

**Tourism is referred to as an invisible trade** because it generates income yet no physical goods are exchanged.

**Tourism is an invisible export** because it generates foreign exchange yet no physical goods are taken outside the country.

**Importance of tourism.**

1. It creates employment.
2. It generates income for people and government.
3. It leads to the development of infrastructure like roads, air stripes etc.
4. It provides market for local products such as food.
5. It promotes development of local industries like craft strips etc.

**Solutions to problems facing tourism.**

1. Improving on the security
2. Improving on the advertisement.
3. Improving on the road network.
4. Improving upon accommodation services.
5. Encouraging the training of people who provide services to tourists.
6. Employing more and better trained game r angers.
7. Introducing new species of animals.
8. Providing veterinary services to animals.

**Activity**

1. *What are natural resources?*
2. *Mention the two types of natural resources*
3. *Write down two examples of natural resources*
4. *How is land useful as a resource?(give two ways)*
5. *State two ways how man has misused land*
6. *How do you use animals at home to earn a living?*
7. *What is tourism?*
8. *Mention any two tourist attractions found in Uganda*
9. *State one reason as to why tourism is referred to as an invisible export.*

**Disadvantages of tourism.**

1. Tourists bring deadly diseases.
2. It is expensive to maintain parks.
3. Animals in national parks escape and kill people.
4. Tourists bring in immoral foreign culture.
5. Some tourists come as spies.

**Uganda’s National Game parks.**

National Game Parks are natural habitats of wild animals that are protected by the government.

**National Game Reserves**

These are natural habitats demarcated to protect stray animals that have escaped from the national game parks.

**A Zoo**

This is a place where few selected wild animals and birds are kept on a small scale for public viewing.

**Note**

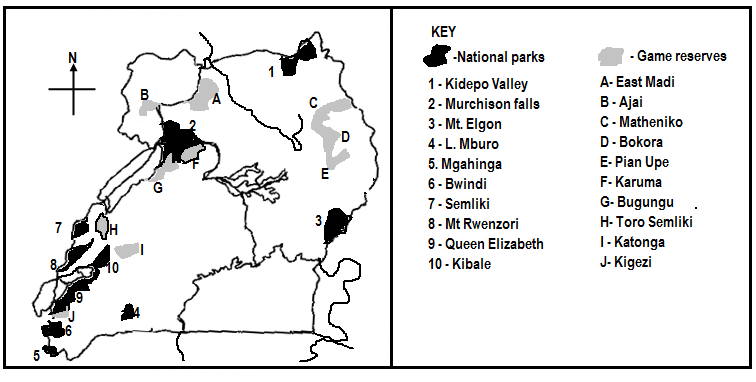
The ministry of tourism, trade and industry is responsible for wild life and national game parks in Uganda.

**A Sanctuary** Thisis a palace demarcated to protect rare species of animals and birds e.g.

1.). Ngamba Island for Chimpanzee.

ii).Bwindi Impenetrable forest and Mgahinga for mountain Gorillas.

**NATIONAL PARKS AND RESERVES OF UGANDA**



**Major national game parks and animal of Uganda**

|  |  |  |
| --- | --- | --- |
| **Sn.** | **National Game park** | **Animals found** |
|  | Kidepo valley N.G.P | Zebra, Gazelle, Buffalo, Giraffe, Cheetah and Ostrich |
|  | Mt. Elgon N.G.P | Leopards, Lions, Crocodiles, Hippos, Buffalos |
|  | Murchison fall N.G.P | Buffalo, Elephant, Hyena, Blue monkey, Leopard, Eagle |
|  | Bwindi N.G.P | Mountain Gorillas |
|  | Mgahinga N.G.P | Mt. Gorillas, Golden monkeys |
|  | Mt. Rwenzori N.G.P | Chimpanzee, Black & White monkey, Leopard |
|  | Queen Elizabeth N.G.P | Leopard, Lion, Hippo, Buffalo, Bushbuck |
|  | Semliki N.G.P | Squirrels, White crested horn bill |
|  | L. Mburo N.G.P | Impala, Ze bra, Buffalo, Leopard, Hyena, Eland etc |
|  | Kibale N.G.P | Bush babies, Elephants, Chimpanzee |

**Importance of hotels to tourists**

1. Hotels provide accommodation to the tourists.
2. Hotels provide food to the tourists.
3. Hotels provide entertainment to the tourists
4. Hotels provide transport to the tourists.

**Problems faced by animals in the game parks.**

1. Shortage of water and pasture.
2. Animal vectors and diseases.
3. Bush fire s.
4. Poaching.
5. Encroachment thus the use of a game park for other activities e.g. farming, settlement etc.
6. Civil wars / insecurity where animals are due to lack of security for animals or animals escape or stay away from the game park because of sounds of gun shots.

**Water**

Water can be got from well, rivers, springs, swamps (wetland), streams and lakes.

**Importance of water.**

1. For industrial use.
2. For domestic use.
3. For animals.
4. For irrigation
5. For medical purposes.
6. For stopping big fires.

**How water is misused.**

1. Dumping wastes (industrial and domestic) in water bodies.
2. Framing near water bodies.
3. Draining of swamps.
4. Building latrines near water bodies.

**How water can be used properly.**

1. By boiling water
2. By covering the water.
3. By protecting the water source.
4. Proper dumping of wastes.
5. Conserving wetlands.

**Climate**

Favourable climate (reliable rainfalls) support crop growing and semiarid support nomadic pastoralism.

**How climate can be spoilt.**

1. Massive cutting down of trees.
2. Drainage of wetlands.
3. Industrialisation.

**How climate can be conserved.**

1. Through afforestation
2. Through agro-forestry
3. Through re-afforestation
4. By conserving the wetlands.

**People**

People as an example of natural resources provide labour.

There are two types of labouri.e.

1. Skilled labour (trained workers)
2. Unskilled labour (Untrained workers)

**Problems affecting labour.**

1. Poor pay
2. Poor working conditions
3. Corruption
4. Brain-drain (i.e. trained workers going out to look for better paid jobs).
5. Tribalism
6. Diseases.

**Activity**

1. *How can climate be conserved?*
2. *How is water as a resource being misused?*
3. *In which way is water useful to people in the NPPS community?*
4. *Write down two problems affecting labour (people working ) in your community*
5. *Mention the two types of labour*
6. *Write down two problems facing animals in game parks.*
7. *What is a zoo?*
8. *How are hotels important to tourists?*
9. *Which animals are commonly found in Murchison falls national park?*
10. *What is Bwindi impenetrable national park famous for?*
11. *Name the island that was set up as a home for chimpanzee in lake Victoria*

**Minerals**

1. Minerals are chemical substances that are found beneath the earth.
2. Minerals are mined from the earth
3. Mining is the processing of extracting minerals form the earth.

**Uganda’s major minerals.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sn.** | **Minerals** | **Location** | **Uses** |
|  | Copper | Kasese, Kilembe | For making telephone and electric wires, coins, pipes, heaters, artificial teeth, trophies etc |
|  | Limestone | Kasese/Hima,  Tororo/Osukuru, Rukungiri | For making cement |
|  | Salt | Lake Katwe | For human consumption and chemical industry, drugs |
|  | Phosphates | Tororo (Osukuru Hills),  Busumbu/Manafwa. | For making artificial fertilizers |
|  | Petroleum/Oil | Lake Albert, R. Semliki,  Hoima, Buliisa, Pakwach,  Rhino Camp And Nwoya | For making petrol, diesel, paraffin, plastics, drugs, sandals |
|  | Iron ore | Kabale, Kisoro, Kotido,  Tororo And Manafwa. | For making nails, iron sheets, car bodies |
|  | Gold | Moroto, Kaabong, Busia,  Napak, Mubende, Bugiri | For making jewellery, medals, artificial teeth. |
|  | Asbestos | Kapchorwa, Karamoja And Arua | For making asbestos sheet |
|  | Tin | Kabale, Kisoro, Hoima,  Soroti, Rukungiri | For making tins and cans |
|  | Wolfram | Kabale, Kisoro, Mubende | For making filaments of bulbs |

**Why some minerals are not mined in Uganda.**

* Shortage of capital
* Shortage of skilled labour.
* Some minerals deposits are small in quantity.
* Some minerals are scattered.
* Lack of political will to exploit the mineral by the leaders.
* Some minerals are in no man’s land.

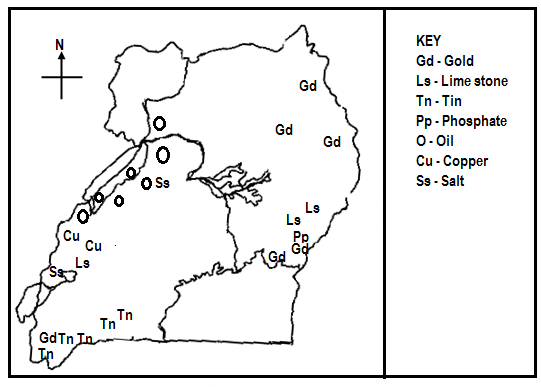
**Importance of mining industry.**

* It creates employment.
* It earns foreign exchange to the country
* It leads to industrialization
* The mining companies pay taxes to the government.

**Disadvantages of mining industries.**

* It leads to environmental degradation
* It leads to pollution of air water and land.It leads to displacement of the local people

**The major minerals of Uganda**



**Caring for natural resources**

1. **Animals**

**-**Treating them when they are sick.

**-**Wild animals should be protected from poachers.

**b) Land**

**-**Applying manure to maintain soil fertility.

-Terracing hilly areas to control soil erosion.

-Bush fallowing to allow land to rest and gain its fertility.

c) **Vegetation**

-Watering plants to keep them healthy.

-Adding manure to the soil to help plants to grow well.

- Spraying with pesticides to control pests and diseases.

- Pruning and weeding’

**d) Water**

**-** Protecting water sources by cleaning them

-Treating sewage before discharging it to water sources

-Avoiding water pollution.

**e) Climate**

-Planting trees

- Using environment friendly energy sources e.g. H.E.P and solar.

-Reducing the emission of fumes from vehicles and industries.

**f) People**

-Training them to get skills

- Providing proper medical care and good feeding.

- Paying good salaries to motivate them.

**Activity**

1. *What is a mineral?*
2. *Define the term mining*
3. *Complete the table below;*

|  |  |  |
| --- | --- | --- |
| *mineral* | *Finished product* | *Area where it is mined* |
| *copper* |  |  |
| *limestone* |  |  |
| *salt* |  |  |
| *Petroleum oil* |  |  |

1. *Give two reasons why some minerals are not fully exploited in Uganda*
2. *How important is the mining industry to Uganda?*
3. *How do people near Lake Katwe benefit from their location?*
4. *Mention one way of caring for vegetation in your school*
5. *Mention one way of caring for wild animals.*

***THE END***

**TERM II**

**TOPIC ONE:THE PEOPLE OF PRE-COLONIAL UGANDA**

* The Bushmen were the original inhabitants of Uganda.

**Activities carried out by the Bushmen.**

* Hunting
* Food gathering
* Uprooting roots.

The Bushmen/Earlyman lived during the Stone Age period.

NB The stone age period was the period when Earlyman used tools and weapons made out of stones.

**Stages of the Stone Age period**

* Early/Old Stone Age period.
* Middle Stone Age period.
* New /Late Stone Age period.

**Major discoveries in each stage**

|  |  |
| --- | --- |
| **Stage** | **Discovery** |
| Old Stone Age period | Fire |
| Middle Stone Age period | Farming |
| New/old Stone Age period | Iron smelting |

**ETHNIC GROUPS IN UGANDA**

* An ethnic group is a group of people with the same origin and speak related languages.

**Common terms related to ethnic groups**

* **Ethnicity-**Ethnicity is a state of belonging to a particular group of people.
* **Tribe-**A tribe is a group of people with the same origin and speak the same language.
* **Clan-**A clan is a large family group in a tribe.
* **Lineage-**A lineage is a group of people under one forefather.
* **Family-**A family is a group of people related by blood, marriage and adoption.
* **Totem-**A totem is a special object or animal respected as an emblem.

**Characteristics of ethnic groups**

* They speak related languages
* They have the same origin.
* They have similar cultural practices.
* They carry out similar economic activities
* They have similar names
* They have similar or related political and social set ups.

**Examples of ethnic groups in Uganda.**

* Bantu
* The Nilotes.
* Hamites or Cushites.
* The Sudanic people
* **MAP OF UGANDA SHOWING EARLY MIGRATIONS AND SETTLEMENT OF ETHNIC GROUPS.**

**Reasons for or causes of early migrations**

* Shortage of land due to increased population.
* Internal conflicts.
* External conflicts.
* Epidemics and diseases
* Famine in their homeland.
* Drought in their homeland.
* Shortage of water in their homeland.
* Shortage of pasture in their homeland.

**Problems faced by early ethnic migrants during their migration.**

* Attacks from indigenous hostile tribes.
* They were attacked by dangerous wild animals.
* They suffered from tropical diseases.
* Poor transport
* Shortage of supplies like food, clean water and medicine.
* There was no proper or good shelter.

**THE MIGRATION AND SETTLEMENT OF BANTU**

* The Bantu have a common suffix ‘ntu’ or ‘ndu’ to refer to people or a person.
* Bantu are the largest ethnic group in Uganda.
* They carry out crop farming or cultivation.
* The Bantu came from Cameroon highlands in West Africa.
* They entered Uganda through the western direction from DRC.
* The Bantu settled in the Interlacustrine region.

**The Interlacustrine region**

* The term “Interlacustrine”refers to the area between the great lakes of East Africa
* **Why did the Bantu settle in the interlacustrine region?**
* The region received reliable rainfall that supports crop growing.
* The area had cool temperatures that favoured settlement.
* The region had fertile soil good for growing crops.

**Reasons for or causes of Bantu migration**

* They were looking for fertile land for cultivation.
* They were running away from internal and external conflicts
* They were running away from epidemics and diseases.
* They were looking for areas with reliable rainfall amounts.
* They were running away from famine.
* Population pressure in their homeland (cradle land) forced them to migrate.

**Examples of Bantu in Uganda**

* **B**aganda – Luganda
* Banyankole – Lunyankole
* Banyoro - Lunyoro
* Banyole – Lunyole
* Batooro–Lutooro
* Bagisu – Lugishu
* Bakiga - Lukiga
* Basamia – Lusamia
* Bafumbira - Lufumbira
* Basoga – Lusoga
* Bakonjo - Lukonjo

**Effects of Bantu migration and settlement in Uganda**

* They led to displacement of the Bushmen.
* They introduced the cultureof cultivation.
* They introduced new languages
* They introduced new systems of administration (centralisation)
* They led to population increase in the region where they settled.
* There were intermarriages between the Bantu and the indigenous people.
* They led to the outbreak of wars and conflicts.

**Revision questions**

1. Define an ethnic group.
2. Give the meaning of the term tribe.
3. Which ethnic group migrated to Uganda from Cameroon highlands?
4. Whythe Bantu are called so?
5. From which direction did the Bantu enter Uganda?
6. Identify two reasons why the Bantu settled in the “Interlacustrine” region.
7. Who were the inhabitants of the land that the “Interlacustrine” the Bantu occupied?
8. Name the largest Bantu tribe in Uganda.
9. In three ways, show how the Bantu migration affected the people of Uganda.
10. State any four causes of Bantu migration.

**Reference**

Comprehensive SST guide page 146 -149

Mk standard SST pupils book five pages 52 – 54

SST syllabus for primary five page 186

**NILOTES**

* Nilotes carry out pastoralism or Cattle keeping.

**Why most tribes under Nilotes have adopted Mixed farming**

* They settled in areas with fertile soil.
* They settled in areas with favourable climate or reliable rainfall.
* They were influenced by the Bantu.

**Reasons for the migration of the Nilotes.**

* They were looking for water and pasture
* They were running away from internal and external conflicts.
* They migrated due to animal and human diseases in their homeland.
* They migrated due to famine in their cradle land.

**Sub- groups of Nilotes**

* River-Lake Nilotes or Luo speakers
* Plain Nilotes
* Highland Nilotes

**The River-Lake Nilotes**

* They are also referred to as Nilotics or Luo Speakers.
* They carry out pastoralism or cattle keeping.
* The River-Lake Nilotes migrated from Bahr-el-Ghazel in South Sudan.
* They entered Uganda through the Northern direction and settled in Pubungu, present day Pakwach.

**NB:** Due to the disagreement about a spear and a bead, the Nilotic’s separated into different groups.

1. **Gipiirs group.**

* Gipiir led his group across R.Nile and settled in the West Nile region.
* They intermarried with the Lendu and Okebo to form the Alur.

1. **Labongos group.**

* They moved NorthEast into present day Acholi sub region.
* They intermarried with the natives and formed the Acholi.

1. **Isingoma Mpuuga Rukidi.**

* Isingoma Rukidi led his group southwards and came into contact with the Babiito in Bunyoro-Kitara to form the Luo-Babiito dynasty.

1. Another group moved to Eastern Uganda in present day Tororo,they formed the Jopadhola.

**How Pubungu is related to the River-Lake Nilotes.**

* It is where River-Lake Nilotes first settled in Uganda
* It was a dispersal area for the River-Lake Nilotes.
* It is where River-Lake Nilotes separated.

**Examples of the River-Lake Nilotes in Uganda.**

* Alur
* Acholi
* Jop’Adhola

**How did the migration and settlement of the River-Lake Nilotes affect the people of Uganda?**

* Their invasion led to the decline of Bunyoro-Kitara Empire.
* They increased animals and human population in areas they settled.
* They intermarried to form new tribes.
* They caused land conflicts
* They introduced pet names.
* They displaced people in areas they occupied.
* They founded the Luo-Babiito dynasty.

**THE PLAIN NILOTES**

* They are also known as Nilo Hamites.
* They carried out Nomadic pastoralism or cattle keeping but today many adopted mixed farming.
* They came from the Ethiopian Highlands.
* They entered Uganda through the North Eastern direction and settled in North Eastern and Eastern Uganda.

**Example of plain Nilotes in Uganda**

* Karimojong-Ngakarimojong
* Iteso-Ateso
* Lango-Lango
* Kuman–Kumam

**Results of the migration and settlement of Plain Nilotes to the people of Uganda.**

* They intermarried with other tribes leading to new cultures.
* They introduced new systems of governance based on family and clan levels.
* They led to increased population in Uganda.
* They displaced people where they settled.
* They led to overstocking of domestic animals.

**Highland Nilotes.**

* They carry out cattle keeping or pastoralism.
* They came from the Ethiopian Highlands.
* They entered through the North Eastern direction and settled in the North East near Mt.Elgon.

**Examples of Highland Nilotes in Uganda**

* Sabiny or Sebei- KupSabiny.

**Districts occupied by Highland Nilotes.**

* Kapchorwa
* Bukwo

**Effects of the migration and settlement of Highland Nilotes.**

* They intermarried with other tribes leading to new cultures.
* They led to increased population in Uganda
* They displaced people where they settled.

**THE HAMITES OR CUSHITES.**

* The Hamites are also known as the Cushites.
* They are the smallest tribal group in Uganda.
* Their main occupation was Nomadic pastoralism but now adopted settled cattle keeping.
* They came from Ethiopian Highlands and entered Uganda through the South Western direction.

**Districts occupied by Cushites or Hamites.**

* Kiruhura District
* Lyantonde District
* Sembabule District

**Examples of the Hamites or Cushitic tribes in Uganda**

* Bahima

**Reasons for their migration**

* Shortage of water for their animals
* Shortage of pasture for their animals.
* Presence of animal pests in their cradleland.
* Presence of animal diseases in their cradleland.
* Overpopulation in their cradle land.

**THE SUDANIC PEOPLE.**

* They came from Juba in South Sudan.
* They entered Uganda through the Northern direction and settled in the West Nile region of Uganda.

**Tribes that belong to the Sudanic people**.

* Lugbara
* Madi
* Okebo.
* Lendu.

**Revision questions**

1. Identify the three sub groups of the Nilotes.
2. What was the main occupation of the Nilotics?
3. Give three reasons why some Nilotics tribes changed to mixed farming.
4. Whythe Nilotics are sometimes referred to as the Luo speakers?
5. Who was the founder of the Luo Babiito dynasty?
6. How was the Luo-Babito formed?
7. Where was the cradle land of the River-Lake Nilotes?
8. What is the relationship between Pubungu and the River-Lake Nilotes.
9. Write down four examples of the River-Lake Nilotes in Uganda.
10. Give three reasons why the River-Lake Nilotes migrated from Bahr-el-Ghazel into Uganda.
11. How did the coming of the Nilotes affect the life of people in Uganda?
12. Why the River-Lake Nilotes are called so?

**Areas of settlement of different ethnic groups**

* Around lake shores.
* Around river banks.
* Around mountain slopes.
* On plain areas.

**Factors that influence or affect the settlement pattern of ethnic groups of people.**

* Nature of the soil
* Vegetation distribution
* Climate
* Water bodies
* Human activities
* Security of the area

**RECENT MIGRATIONS**.

* Migration is the movement of people from one place to another for settlement.

**Types of migration**

* Internal migrations
* External migrations

**Internal Migration.**

* This is the movement of people from one place to another within the same country for settlement.

**Examples of internal migrations.**

* Rural-Urban migration
* Urban –Rural migration
* Urban-Urban migration
* Rural-Rural migration

**Note:**

* Explain the causes of each type of internal migration.
* Discuss the disadvantages of Rural-Urban migration.
* Discuss ways the government can prevent Rural-Urban migration.

**External migration.**

* This is the movement of people from one country to another for settlement.

**Examples of external migrations.**

* Immigration.
* Emigration.

**Immigration.**

* Immigration means coming into a foreign country for a permanent settlement.

**Causes of immigration.**

* Civil wars.
* Presence of natural disasters.
* Unemployment in the home country.
* Presence of Religious wars in the home country.

**Effects of immigration.**

* It leads to shortage of labour in the home country.
* It leads to brain drain in the home country.
* It leads high cost of living in the settled country.
* It increases on the levels of unemployment in the settled country.
* Immigration results into many refugees in a country.

**NB:**The opposite of immigration is emigration.

**Emigration**means leaving a home country to settle permanently in a foreign country.

**ORGANISATION OF ETHNIC GROUPS  
Political organisation**

* Political organisation refers to how people govern themselves.

**Ways ethnic groups were politically organised or cultural institutions.**

* Empires.
* Kingdoms.
* Chiefdoms.
* Clans.
* Lineage.

**EMPIRES.**

* An empire is a large area with many states controlled and governed by one ruler.

**BUNYORO KITARA EMPIRE**

* Bunyoro Kitara kingdom was the earliest empire to be formed in Uganda.
* It was founded by the Abatembuzi or Batembuzi.
* Leadership was done through dynasties.
* A dynasty is a line of rulers from the same family.

**The Tembuzi dynasty.**

* The Tembuzi ruling dynasty was founded by Ruhanga and his brother Nkya.
* Abatembuzi were believed to be demigods.
* They performedmiraculous signs. For example; when annoyed, they could disappear
* The last ruler of the Tembuzi dynasty was king Isaza.
* It is believed that the Batembuzi didnot die but disappeared.
* Traditions also have it that the Tembuzi dynasty came to an end when Isaza was locked underground by King Nyamiyonga –king of the underground.

**The Chwezi dynasty.**

* The Chwezi are believed to have come from the Ethiopian Highlands in Ethiopia.
* Ndahura was the first king of the Bachwezi.
* Wamala was the last Chwezi king.
* Bigobyamugenyi was the official palace and the headquarters of the Chwezi.

**Cultural sites leftby the Bachwezi**

* Bigobyamugenyi in Sembabule.
* Kibengo.
* Kagongo.
* Kasonko.
* Ntusi.

**Importance of cultural sites left by Bachwezi to the economy of Uganda**

* They attracted tourists who bring in revenue.
* They are a source of employment.
* They promote culture.
* They are used for research and study purposes.

**Contribution of the Bachwezi**

1. **Political contributions.**

* They introduced centralised system of administration.
* They introduced their royal regalia.
* They introduced the idea of building reed palaces.

1. **Economiccontributions.**

* They introduced the iron smelting(black smith)
* They introduced long-horned cattle.
* They introduced coffee growing.
* They introduced the idea of salt-mining.
* They introduced the idea of bark cloth making.
* They introduced the idea of pottery.

1. **Social contribution.**

* They introduced a local game called Omweso(local chess).
* They introduced the building of grass thatched huts.
* They introduced the idea of digging ditches.
* They introduced other sports activities like wrestling and long races.
* They introduced cow-hide sandals.
* They introduced the footed dishes made from clay.

**NB:**The Chwezi were the last rulers of Bunyoro Kitara empire.

**Reasons for the collapse of Bunyoro-Kitaraempire**

* Death of the beloved cow Bihogo.
* The empire was too large to be ruled by one ruler.
* Increased natural calamities and misfortunes e.g. famine.
* Constant rebellions from Bantu communities.
* The invasion by the Luo speakers.

NB: The Luo invasion led to the final collapse of Bunyoro Kitara Kingdom.

**The Luo Babiito dynasty.**

* The Luo-Babiito dynasty was founded by Isingoma Rukidi Mpuga and his twin brother Kato Kimera.
* Luo-Babiito dynasty led to the formation of various Kingdoms from Bunyoro-Kitara Empire.

**KINGDOMS**

* **A** kingdom is a political unit headed by a king or queen.

**Characteristics of a Kingdom.**

* Leadership is hereditary.
* They have royal regalia.
* Rulers have absolute powers.
* They have social (cultural) institutions.
* People have the same economic activity.

**Advantages of kingdoms.**

* They promote unity among the people.
* They promote moral and culture among the people.
* They avoid power struggle since leadership hereditary.
* They promote peace and security.
* They foster development through provision of social services.
* They offer scholarships to school-going children.
* They mobilise people for government programmes.

**Disadvantages of kingdoms.**

* They promote dictatorship as the king is not democratically elected.
* Sometimes they favour the interests of the minority.
* They concentrate on one region rather than the whole region.
* They promote tribalism.
* They promote unequal distribution of wealth.

**Examples of ancient Kingdoms formed from Bunyoro-Kitara empire.**

* Bunyoro kingdom.
* Buganda kingdom.
* Tooro kingdom.
* Ankole kingdom.

**Current Kingdoms in Uganda.**

|  |  |  |
| --- | --- | --- |
| **Kingdom** | **Traditional Tittle** | **Traditional leader.** |
| * **Buganda Kingdom** | * **Kabaka** | * **Kabaka Ronald Muwenda Mutebi 11** |
| * **Bunyoro Kingdom** | * **Omukama** | * **Omukama Solomon Gafabusa Iguru.** |
| * **Tooro Kingdom** | * **Omukama** | * **Omukama Oyo Nyimba Kabamba Iguru.** |
| * **Rwenzururu Kingdom** | * **Omusinga** | * **Omusinga Charles Wesley Mumbere** |

**Roles and responsibilities of traditional leaders.**

* They unite people.
* They settle conflicts among their subjects.
* They guide and counsel people.
* They promote peace and security among people.
* They promote culture.
* They foster development through setting up projects.

**BUGANDA KINGDOM.**

* Traditions have it that Buganda kingdom was founded by Kato Kimera a twin brother of Isingoma Mpuga Rukidi.
* Another tradition has it that Buganda was founded by Kintu from Eastern Uganda around Mt.Elgon.
* Kintu is believed to be the first king of Buganda.

**The original counties of Buganda Kingdom.**

* Busiro.
* Mawokota.
* Kyadondo.

**Factors for the growth and expansion of Buganda**

* Good leadership. Buganda had able and strong leaders.
* The decline of Bunyoro Kitara kingdom.
* Fertile soils and abundant food supply.
* Strong military (army) with guns from Arabs.
* Buganda was protected in the South by Lake Victoria.
* The coming of Europeans made Buganda more advantaged than other kingdoms.
* The kingdom was small enough for easy administration.
* Unity of the people.
* Buganda had a standing army.
* Buganda acquired firearms from the Arabs.
* Buganda’s participation in the Long Distance Trade.

**Factors that weakened Buganda Kingdom.**

* Religious wars that broke out in 1892 weakened Buganda.
* Participation in politics that led to banning of Kingdoms.
* Intermarriages that have diluted the cultures of Buganda.
* The 1900 Buganda agreement that reduced the powers of Kabaka.
* The coming of Europeans and the colonisation of Uganda.

**Why Bantu tribes were able to form Kingdoms.**

* They were united.
* They were organised.
* They were settled.

**CHIEFDOMS.**

* A Chiefdom is a political unit headed by a chief.

**Examples of chiefdoms in Uganda**

|  |  |
| --- | --- |
| **Chiefdom.** | **Traditional tittle of the leader**. |
| Busoga | Kyabazinga |
| Bugisu | Omukhuka |
|  |  |
|  |  |
| Acholi | Rwoth |
| Alur | Rwot |
| Iteso | Emorimori |

**Abolition or banning of Cultural Institutions.**

* The 1967 constitution abolished all cultural institutions in Uganda.
* The 1967 constitution was made by the UPC government under H.E Apollo Milton Obote.

**Restoration of cultural institutions in 1993.**

* They were restored by the 1995 or people’s constitution.
* The NRM government under H.E Y.K Museveni restored all cultural institutions in Uganda.

**Cultural institutions restored in 1993.**

* Buganda kingdom.
* Tooro kingdom.
* Bunyoro kingdom.
* Busoga chiefdom.

**Reasons why kingdoms were restored.**

* To promote unity among the people.
* To restore and promote morals and cultural values.
* To strengthen families and clans.
* To ensure that Ugandans live peacefully with one another.

**SOCIAL ORGANISATION OF ETHNIC GROUPS.**

* This refers to ways people interacted or related with each other.

**Ways ethnic groups were socially organised.**

* Through marriage.
* Through families.
* Through games and sports like wrestling.
* Initiation ceremonies.
* Achievement ceremonies e.g. good harvest, birth of Twins.

**Culture among ethnic groups of people**

* Culture is the way of life and beliefs of people in society.

**Types of cultures.**

1. **Material culture.**

* Material culturesare physical items thatexplain people’s ways of life and beliefs.

**Examples of material culture.**

* Clothing.
* Crafts.
* Weapons.
* Food.
* Royal regalia.

1. **Non material culture.**

* Non material culture is actions and gestures that explain people’s ways of life and beliefs.

**Examples of non-material culture.**

* Traditional ways of burying the dead.
* Traditional ways of naming children.
* Traditional marriage.
* Traditional dances.
* Languages.
* Customs and taboos.
* Circumcision
* Totems.

**Importance of culture**

* Culture helps to promote unity.
* It promotes peace.
* It promotes a sense of identity or belonging.
* It promotes morals.
* It promotes cultural heritage.

**VALUES OR SOCIAL NORMS.**

* The things we believe to be right and wrong.
* The things we believe in and support openly.

**Examples of values.**

* God fearing.
* Orderliness.
* Carefulness.
* Love.
* Obedience.
* Faithfulness.
* Respect.
* Cleanliness.
* Honesty.
* Helpfulness.
* Law abiding.
* Trust.
* Value for work.

**Importance of values.**

* They promote discipline among people.
* They promote peace among people.
* They promote friendship among people.

**Types of values.**

* Personal values
* Family values
* Community values.

**Relationships.**

* Relationship is how people interact with each other.

**Types of relationships.**

* Blood relationship.
* Peer relationship
* Social relationship.
* Marriage relationship

**Importance of relationships**

* They promote love among people.
* They promote peace among people.
* They promote unity among people.

**ECONOMIC ORGANISATION OF ETHNIC GROUPS.**

* It refers to the ways ethnic groups of people worked to earn a living.

**Activities done by ethnic groups of people to earn a living**.

* Bartering or trading.
* Iron smelting.
* Crop growing.
* Animal rearing.
* Bark cloth making.
* Salt mining.

**NB:** Today people get goods through the use of money.

**Reference**

-MK SST Pupil’s book five page 56-68

-SST Syllabus page 188-189

-Sharing our world pupil’s book five pages 55-69

**FOREIGN INFLUENCE IN UGANDA**

* Foreign influence refers to the changes brought by foreigners to Uganda.

**Examples of foreigners or visitors that came to Uganda.**

|  |  |
| --- | --- |
| **Continent of origin** | **Foreigner or visitors.** |
| Asia | * Arab traders * Indian traders |
| Europe | * Explorers * Missionaries * Traders * Colonialists or Administrators. |

**THE ARAB TRADERS**

* Arab traders were the first group of foreigners to come to Uganda.
* They used Dhows blown by Monsoon winds to cross the Indian Ocean.
* The first group of Arab traders were welcomed by Kabaka Suuna 11 of Buganda.
* Ahmed bin Ibrahim was the first Arab trader to come to Uganda.
* Khartoumers were Arab traders who came from Sudan.

**Note:**Most Arab traders moved in groups called Caravans.

* A caravan is a group of people moving together.
* Arabs moved in caravans for protection or security reasons.

**Reasons why Arabs traders came to Uganda.**

* They came to trade.
* They came to spread Islam**.**
* Some ran away from Religious wars in Saudi Arabia.
* Some came due to the spirit of adventure.

**Trade items that were brought by Arab traders to Uganda**

* Guns – major item of trade brought to Uganda.
* Cloths.
* Carpets.
* Cowrie shells – first currency or medium of exchange introduced by Arab traders.
* Glass ware.
* Beads.
* Mirrors.
* Cups.

**Trade items taken by Arabs from Uganda**

* Slaves –major item taken by Arabs.
* Ivory.
* Gold.
* Salt.
* Animal skins and hides.
* Iron implements.
* Cereals or grain.
* Rhinoceros horns.

**Note:** The Arab traders and natives practised Barter trade**.**

**Barter trade**

* Barter trade is the exchange of goods for goods.

**Advantages of Barter trade.**

* It promotes friendship between the trading parties.
* It solves the problem of currency differences.
* It avoids the problem of bad debtors.

**Disadvantages of Barter trade.**

* It is difficult to get a ready customer.
* There is time wastage.
* It is tiring.
* There is no borrowing of goods.
* There is no standard of measurement used in the exchange.

**Note**: Barter trade was replaced by monetary trade.

* Monetary trade is a type of trade that involves the use of money in the exchange of goods and services.

**Contributions of Arab traders to Uganda’s development.**

1. **Positive contributions.**

* They introduced cowrie shells as a medium of exchange.
* They spread Islam.
* They introduced new items of trade e.g. glass ware, mirrors, guns,etc.
* They introduced zebu cattle.
* They introduced an Arab way of dressing e.g. kanzu and veils.
* They intermarried with natives forming a new race.
* They introduced new languages i.e. Arabic and Kiswahili.
* They introduced their architecture of building stone and flat topped buildings.
* They developed trading centres.

1. **Negative contributions.**

* They started slave trade.
* They led to death of elephants for Ivory.
* They led to depopulation through slave trade activities.
* They led to decline of African culture.

**INDIAN TRADERS.**

* They came from India in Asia

**Groups of Indians traders.**

* Banyans – Indian money lenders.
* Indian coolies.

**Reasons why Indian traders came to Uganda.**

* Indian coolies came to build the Uganda railway.
* Some came to trade.

**Examples of Indian traders in Uganda.**

* **Aldina Visram –** Opened up the first shop in Kampala.
* **N.K Mehta –** He opened up a sugar factory at Lugazi in 1924 under SCOUL.
* **Madhivan –** He opened up a sugar factory at Kakira .

**Contributions of Indian traders in Uganda.**

1. **Positive contributions.**

* They provided cheap labour during the building of the Uganda railway**.**
* They opened up shop,plantations and factories.
* They introduced Rupees as a medium of exchange.

1. **Negative effects.**

* They over exploited Uganda’s resources.
* They over exploited Ugandan workers.

**Questions.**

1. Name the first group of foreigners to come to Uganda.
2. Who was the reigning Kabaka of Buganda when the first group of Arabs arrived in Buganda?
3. Why did the people of Buganda welcome the Arabs?
4. How was the communication between the Arabs and the local people made possible?
5. Identify three problems that the early Arab travellers faced in the interior of East Africa.
6. Give three reasons why Islam took long to spread in Uganda.
7. How is the coming of Arabs related to the coming of Europeans to Uganda?
8. Give one reason why the local people of Uganda hated the Arabs traders .
9. In three ways, show how the coming of Arabs helped to develop Uganda’s economy.
10. Which was the first currency to be introduced in Uganda?
11. Define the term slave trade.
12. Give two ways slaves were obtained.
13. Give two reasons for the development of slave trade in Uganda.
14. Mention three effects of slave trade.
15. Give reasons why local traders of Uganda never wanted slave trade to stop.

**EUROPEAN EXPLORERS.**

* An explorer is a person who moves to a foreign land to discover what is unknown.
* Explorers were sent and sponsored by the Royal Geographical Society (R.G.S).

**Ways the R.G.S financed,funded,sponsored explorers.**

* They provided medical supplies.
* They provided food .
* They provided means of transport to explorers.

**Reasons for the coming of explorers**

* To see the source of the great R.Nile.
* To find out more about other physical features.
* To study about the culture of Ugandans.
* To acquire and expand their knowledge.
* Some came for political prestige.

**Problems faced by the early Explorers in East Africa.**

* They suffered from tropical diseases like malaria.
* Language problem .
* Poor transport due to natural barriers.
* Shortage of food, water and medical supplies.
* Attacks from hostile tribes.
* Attacks from fierce man eaters like lions.

**Ways explorers tried to solve the problems above.**

* They employed translators and interpreters to solve language barrier.
* They employed guides to direct them to various routes
* They employed human porters to carry luggage
* They made friendship with local people to shelter them

**Examples of explorers who came to Uganda.**

1. **John Hanning Speke.**

* King Rumanika of Karagwe kingdom welcomed John Speke and James Grant.
* He was the first European explorer to come to Uganda
* He was the first European to see and name the source of R.Nile, (Rippon falls).
* He saw and renamed L.Nalubaale as L.Victoria.
* He moved northwards and met the Bakers at Gondokoro in South Sudan.

1. **Sir Samuel Baker.**

* He was welcomed by Omukama Kamurasi of Bunyoro.
* He followed the Nile route southwards from its mouth.
* He met John Speke at Gondokoro in South Sudan.
* He renamed L.Mwitanzige as L.Albert.
* He named the Murchison falls along the Victoria Nile.

1. **Henry Morton Stanley**.

* **He made two journeys to Uganda.**

1. **During his first journey to Uganda.**

* He circumnavigated L.Victoria.
* He named Mt.Rwenzori as the “mountains of the moon”.
* He named L.Edward and L.George.

**NB:**

* This journey was sponsored by the NewYork Tribune.
* He wrote a letter on behalf of Kabaka Mutesa 1 inviting Missionaries to Uganda.

**Why H.M Stanley circumnavigated L.Victoria.**

* To prove the source of R.Nile.
* To draw the sketch map of L.Victoria.

1. **During his second journey to Uganda.**

* He was sent to rescue Emin Pasha

NB:The Daily TelegraghNewspaper of Britain and the New York Herald of America sponsored H.M Stanley’s first journey to Africa to look for Dr David Livingstone.

**d)Dr. Joseph Thompson (1883-1884)**

* He made the first direct route from the coast to L.Victoria.
* He was the European explorer to pass the Masai land to reach L.Victoria.
* He was the first European explorer to see and rename Mt.Masaaba as Mt.Elgon.

**Why is Dr.Joseph Thompson regarded as the greatest explorer in Uganda?**

* He was the first European explorer to use the Eastern route to L.Victoria.

**A SKETCH MAP OF UGANDA SHOWING EXPLORATION ROUTES.**

**KEY**

**John Speke and Grant (1860-1862)**

**Sir Samuel Baker (1862-1865)**

**Henry Morton Stanley (1874-1877)**

**Dr. Joseph Thompson (1883—1884)**

**Note:**

* Most explorers visited Zanzibar before coming into the interior of E.A.
* Most explorers entered East Africa through Bagamoyo at the coast.
* Most explorers passed through Tanzania as they were coming to Uganda.

**Why did most explorers visit Zanzibar before coming into the interior**?

* To get interpreters.
* To get guides to bring them to the interior.
* To hire porters.
* To get permission from the Sultan.

**Why did most explorers enter through Bagamoyo?**

* The Bagamoyo route was safe to use.

**Why did most explorers pass through Tanzania and not Kenya?**

* The Tanzania route was safer than the Kenya route.

**Reference Questions.**

1. Who is an explorer?
2. From which continent did most early explorers to Uganda come?
3. Name the organisation that sent the early explorers to Uganda.
4. Give the major reason why the early explorers came to Uganda.
5. State any four reasons for the exploration of Uganda
6. Identify atleast four problems that the early explorers faced during their work in Uganda
7. How did the exploration work lead to the colonisation of Uganda?
8. Name the African country that attempted to colonise Uganda.
9. Why is Joseph Thompson regarded as the greatest explorer?
10. Mention four ways explorers contributed to the development of Uganda.
11. Why is it wrong to regard John Speke as the first person to see and name L. Victoria?
12. Why did HM Stanley make his second journey to Uganda in 1888?

**EUROPEAN MISSIONARIES.**

* A missionary is a person who moves to a foreign land to preach the word of God.

**Reasons for the coming of Missionaries to Uganda**

* To spread Christianity.
* To stop slave trade.
* To introduce formal education.
* To introduce western culture.

**NB:**They were invited by Kabaka Muteesa 1.

**Reasons why kabaka Mutesa 1 invited missionaries.**

* To teach the Baganda how to read and write.
* To spread Christianity.
* To teach the Baganda practical skills.

**Personalities associated to the invitation letter to the missionaries.**

1. **Kabaka Mutesa 1.**

* He invited missionaries to come to Buganda.

1. **H.M Stanley.**

* He wrote a letter on behalf of kabaka Mutesa 1 inviting missionaries to come to Uganda.

1. **Scorpion Dallington Mafta**.

* He translated H.M Stanley’s speech from English to Kiswahili.

1. **Lenant De Bellefond.**

* He was a Frenchman given the letter to take to the Queen of England.
* He was killed by the Madhist fighters in South Sudan.

NB:The letter was advertised in The Daily Telegraph Newspaper in England.

**Why did Kabaka Mutesa 1 later turn against Christian missionaries?**

* They preached against A.T.R which he believed in.
* They did not give him guns as he expected.

**Missionary groups that came to Uganda**

* The Church Missionary Society (C.M.S).
* The White Fathers.
* The Holy Ghost Fathers.
* The Mill Hill Fathers.
* The Verona Fathers.

1. **Church Missionary Society (C.M.S).**

* The C.M.S was the first group of missionaries to come to Uganda in 1877.
* They were later joined by Alexander Mackay (leader of C.M.S in Uganda) in 1878.
* The C.M.S wereProtestants or Anglicans from England.
* They first settled at Nateete before moving to Mengo present day Namirembe.

**Examples of Missionaries who belonged to the C.M.S.**

* Shergold Smith
* Reverend C.T Wilson
* O’Neil
* Alexander Mackay.
* Reverend G.Letchfield
* Reverend C.W.Pearson
* Dr.Pelkington-translated the English Bible into Luganda.

**Contributions of Alexander Mackay as a missionary.**

* He introduced the first printing press in Uganda.
* He taught people carpentry,joinery and building.
* He spread Christianity in Uganda.

1. **The White Fathers.**

* They were the second group of missionaries to arrive in Uganda in 1879.
* They were Roman Catholic Missionaries (R.C.M) from France.
* They were sent by Cardinal Lavigerie the founder of the White Fathers.
* They established a mission station at Rubaga.

**Examples of the Roman Catholic Missionaries.**

* Fr.Simon Lourdel
* Br.Amans Delmas
* Rev.Fr.Ludovic Girault
* Fr.Leon Barbot

**Note:**

* Fr.Simon Lourdel was the leader of the Roman Catholic Missionaries in Uganda.
* He was nicknamed Mapeera from his French title Mon-Pere meaning Father.

**Other missionaries and their contributions.**

1. **Dr.Albert Cook.**

* He built the first hospital (Mengo) in Uganda.
* He treated people suffering from sleeping sickness at the shores of L.Victoria.

1. **Kenneth Borup**.

* He introduced the first growing cotton seeds in Uganda
* The first growing cotton seeds were known as the American Upland Cotton seeds.

1. **Sir Robert Ashe.**

He introduced the first bicycle (Raleigh bicycle) in Uganda.

1. **Apollo Kivebulaya.**

* He spread Christianity in Western Uganda and Eastern D.R.C

**Problems faced by early European missionaries in Uganda**

* They suffered from tropical diseases.
* They were attacked by hostile tribes.
* They were attacked by man eaters like lions
* There was poor transport.
* There was a problem of language.
* Shortage of food, water and medical supplies.
* They were opposed by some traditional leaders e.g. Kabaka Mwanga.
* They were opposed by believers of other Religions.

**Effects or contributions of Missionaries.**

1. **Positive effects or contributions.**

* They introduced Christianity.
* They introduced formal education (They taught the 3rs thus Reading, Writing and Arithmetic’s).
* They built hospitals.
* They built churches.
* They introduced the first printing press.
* They introduced cash crops in Uganda e.g. Cotton
* They taught people modern methods of farming.

1. **Negative effects or contributions.**

* They paved way for the coming of European Colonialists.
* Their preaching led to the decline of African culture.
* They led to Religious wars in Uganda.
* They led to division of people according to Religion.

**Examples of missionary schools in Uganda**

* Namilyango College in 1902.
* Gayaza for the daughters of chiefs in 1905.
* King’s college Buddo for sons of Kings and chief in 1906.
* Mengo S.S.
* St. Mary’s College,Namagunga.
* St.Mary’s College Kisubi in 1906.
* Rushoroza in Kabaale.

**Examples of missionaries hospitals in Uganda.**

* Mengo hospital built in 1897 – the first hospital in Uganda.
* Rubaga Hospital.
* Nsambya Hospital.
* Nkokonjeru Hospital.
* Dabani Hospital in Busia.
* Kisubi Hospital in Wakiso.
* Naggalama Hospital in Mukono.
* Villa Maria Hospital in Masaka.

**RELIGIOUS WARS IN BUGANDA.**

* These are wars between different Religions and denominations.

**Causes of Religious wars in Uganda.**

* Struggle for power among leaders**.**
* Disobedience of the converts.

**Example of Religious wars in Uganda.**

* Anglicans against Catholics (1888-1892)
* Catholics against Moslems.

**NB:**

* Captain Frederick Lugard fought on behalf of Anglicans against Catholics.
* He used a Cannon gun to win this battle.

**Why did Kabaka Mwanga turned against Christian Missionaries in Uganda?**

* The Christian converts disobeyed Kabaka Mwanga.
* They preached against his Religion.

**NB:**

* Kabaka Mwanga ordered for the killing of Bishop James Hanningtone.
* Bishop James Hannington was speared to death at Chief Luba’s Palace in Busoga on orders of Kabaka Mwanga.

**Who was the first Anglican Archbishop of Uganda?**

* Bishop James Hannington.

**Why did Kabaka Mwanga order for the killing of the first Anglican Archbishop of Uganda?**

* According to the Baganda tradition, he used a wrong route coming to Buganda.

**EUROPEAN TRADERS.**

* European traders carried out trade through forming trading companies or chartered companies.
* They formed the Imperial British East Africa Company (IBEACo).

**Examples of European traders.**

* Sir William Mackinnon.
* Captain F.D Lugard.

**The Imperial British East Africa Company (IBEACo).**

* IBEACo was formerly known as British East Africa Association.
* In Uganda,IBEACo. offices were set up at Old Kampala Hill.
* The IBEACo flag was raised by Captain F.D Lugard in 1890.

**Personalities related to IBEACo in Uganda.**

1. **Sir William Mackinnon.**

* He was the founder of IBEACoin **1887.**

1. **Captain F.D Lugard**.

* He was the representantive of IBEACo in Uganda.
* He raised the IBEACo flag at old Kampala.
* He built fort Edward at old Kampala Hill.
* He restored Omukama Kasagama to his throne.

1. **Bishop Alfred Tucker.**

* He requested for funds from the C.M.S to support IBEACo in Uganda.

**Note**:

* Captain F.D Lugard brought the Sudanesse soldiers from the Equatorial Province to help him promote peace inBusoga, Buganda and Bunyoro.
* Later the Sudanese soldiers staged a mutiny.
* A mutiny is the act of soldiers refusing to obey somebody in authority.

**Why did the Sudanese soldiers stage a Mutiny?**

* They were tired of fighting.
* They were under paid.
* They were under fed.
* To improve on their working conditions.

**Reasons why IBEACo was formed**.

* To carry out legitimate trade.
* To end slave trade.
* To protect Christian Missionaries.
* To protect the British protectorate.
* To set up better communication and transport systems.

**Achievements of IBEACo in Uganda.**

* IBEACo signed treaties that enabled Britain to colonise Uganda.
* IBEACo secured areas for the British colonial government through violence.
* IBEACo protected Christian Missionaries.
* IBEACo developed transport and communication network.
* IBEACo developed legitimate trade which replaced slave trade.

**Reasons for the withdrawal of IBEACo from Uganda.**

* It was bankrupt.
* It failed to completely end slave trade.

**Why did IBEACo run bankrupt?**

* It had no alternative source of income.
* It spent a lot of funds crushing rebellions.
* It controlled a very large area which was costly.
* It employed expensive personnels.

**Reasons why Lugard remained in Uganda after the collapse of IBEACo in 1892**

* He wanted to complete the signing of treaties he had started.
* He wanted to protect the Christian missionaries in Buganda.
* He wanted to protect Omukama Kasagama of Tooro.

**COLONIALISTS OR ADMINISTRATORS.**

* **A colonialist** is a person who carries out administration on behalf of a colonial master.
* **Colonial master** is a powerful country that controls a weak country.
* **A protectorate** is a country controlled and protected by another country for economic reasons.
* **A colony** is a country that is controlled and developed by another for a permanent settlement.
* **To colonise** is to take control of an area that is not of your own.
* **Colonialism** is a situation where a powerful country controls a weak country.

**Reasons for the coming of Colonialists or Administrators**.

* To control the source of R.Nile.
* To get raw material for their industries.
* To get market for their finished products
* To end slave trade.
* To enjoy political pride or prestige.

**Origin of colonial rule in Uganda.**

* Egypt was the African country that tried to colonise Uganda.
* The king of Egypt (Khedive Ismail) tried to colonise Uganda.

**Methods used by Egypt to try to colonise Uganda.**

* Forming the Equatorial Province.
* Sending governors to the Equatorial Province.
* Sending Messengers to Buganda kingdom.

**The Equatorial Province.**

* It was an area that consisted of Northern Uganda and Southern Sudan.
* The headquarters of the Equatorial Province were at Gondokoro in South Sudan.

**Reasons why Egypt wanted to colonise Uganda**.

* To control the source of the R.Nile.

**Governors of the Equatorial Province.**

* Sir Samuel Baker.
* Col: Charles Gordon.
* Edward Schnitzer (Emin Pasha).

1. **Sir Samuel Baker.**

* He was the first governor of the Equatorial province.
* He ended slave trade in Acholi.
* He built fort Patiiko and Wadelai.
* He disarmed the Arab slave traders.

1. **Col: Charles Gordon.**

* He was killed during the Madhist rebellion.

1. He was the second governor of the Equatorial province.
2. **Edward Schnitzer.**

* He was nicknamed Emin Pasha.
* He was the last governor of the Equatorial Province**.**
* He was hated and disliked by the Acholi because his soldiers were involved in slave trade activities.

**Messengers sent to Buganda**

* Lenant De Bellefond.
* Chaille Long –named L.Kyoga.

**EUROPEAN COLONIALISTS.**

* Germany was the first European country to try to colonise Uganda.
* Carl Peters signed a protection treaty with Kabaka Mwanga in 1890 to accept Germany rule.
* The Heligo land treaty was signed to end Germany rule in Uganda in 1890.

**British colonial rule in Uganda.**

The British colonialists were sent by the British government to administer Uganda.

**Examples of British colonialists or Administrators**.

* Captain Frederick Lugard.
* Sir Gerald Portal.

1. **Captain Frederick Lugard**

* He signed a protection treaty with Kabaka Mwanga in 1890 to accept British colonial rule in Uganda.

1. **Sir Gerald Portal.**

* He came to study the political situation in Uganda in 1892.
* He raised the Union Jack to replace the IBEACo flag in 1893.
* He signed a protectorate treaty with Kabaka Mwanga to establish British rule in Uganda.
* He built Forts like fort Portal and fort Alice.
* He set up his headquarters at fort Alice in Entebbe.
* He recommended Uganda to be made a British Protectorate.

**Why did Sir Gerald Portal recommend Uganda a British protectorate?**

* Uganda had fertile soils for growing cash crops.
* Uganda had many mineral deposits.

**c) Lord Roseberry.**

* He declared Uganda a British protectorate in 1894.

**Evidence to prove that Uganda was a British protectorate.**

* Uganda has ever used the Union Jack.
* The use of English as the official language.
* Uganda participates in the Commonwealth games (Olympic Games).
* Uganda is a member of the Commonwealth of Nations.

**Methods used by colonialists to establish colonial rule in Uganda.**

* Signing agreements or treaties.
* Use of Collaborators.
* Use of military force.
* Fuelling existing misunderstandings.
* Use of IBEACo.

NB: The British took long to colonise Karamoja.

**Why the British took long to colonise Karamoja.**

* The Karimojong were very hostile.
* Karamoja was unproductive.

1. **SIGNING OF TREATIES OR AGREEMENTS.**

* An agreement is a written promise or contract between two groups of people.

**Examples of treaties signed to establish colonial rule.**

* The protection treaty between Carl Peters and KabakaMwangain 1889.
* The protection treaty between F.D Lugard and Kabaka Mwanga in 1890.
* The protection treaty between Sir Gerald Portal and Kabaka Mwanga in 1893.

1. **COLLABORATORS.**

* A collaborator is a person who allowed to work with the colonialists to extend colonial rule.

**Examples of collaborators of colonial rule in Uganda.**

1. **Semei Kakungulu.**

* He helped to extend colonial rule to Eastern and some parts of North Eastern Uganda.
* He administered on behalf of the British colonialists.
* He helped the British to arrest omukama kabalega and kabaka Mwanga.

**Achievements of Semei Kakungulu.**

* He built roads in Eastern Uganda.
* He planted trees along the roads to conserve the environment.

1. **Nuwa Mbaguta**.

* He was a Prime Minister of Ankole kingdom.
* He extended colonial rule to Western Uganda.
* He promoted formal education in Western Uganda.

1. **Sir Apollo Kaggwa.**

* He signed the 1900 Buganda agreement on behalf of Buganda kingdom

**Reasons why some natives collaborated with colonialists.**

* They wanted favour from colonialists.
* They wanted gifts from colonialists like land
* To annoy their enemies.
* They wanted protection from the colonialists.

NB:Some African natives resisted colonial rule.

**Examples of resistors to colonial rule**.

* Kabaka Mwanga of Buganda.
* Omukama Kabalega of Bunyoro.
* Chief Awich of Payera.

**Ways traditional leaders resisted colonial rule**.

* Staging rebellions.
* Boycotting European goods.
* Organising riots and strikes.

**REBELLIONS.**

* A rebellion is also referred to as a revolt or resistance.
* A rebellion is an act of refusing to obey given laws.

**Examples of rebellions in Uganda.**

* Lamogi rebellion.
* Nyangire rebellion.
* The Mwanga resistance.

1. **The Lamogi rebellion**.

* It was staged in Acholi in Northern Uganda.
* Chief Awich was the leader of the Lamogi rebellion.

**Causes of the Lamogi rebellions.**

* Forceful registration of guns.
* Fear to pay hut and gun tax.
* Chief Awich feared to lose his traditional powers.

**Why the British forced the Acholi to register their guns.**

* To disarm the Acholi.
* To make the Acholi pay gun tax.

NB:Sir. Fredrick Jackson fought and overcame the Lamogi rebellion and Awich was exiled in Kampala.

The main effect of Lamogirebellion ,theAcholi never registered their guns.

1. **The Nyangire rebellion**.

* The word “Nyangire”means “I have refused”.
* It was mobilised by local chiefs in Bunyoro kingdom.

**Causes of the Nyangire rebellion.**

* Employing Baganda chiefs in Bunyoro.
* Forcing the Banyoro to speak Luganda.
* They did not want to lose their traditional powers to the British.

**Effects of the Nyangire rebellion.**

* There was loss of life.
* Destruction of property.
* Displacement of people.
* Outbreak of famine.

**NB:**

* Colonel Henry Colville fought and overcame the Nyangire rebellion.
* Kabaka Mwanga and Omukama Kabalega were exiled to Seychelles Island.

**Reference questions**

1. What name was given to Omukama Kabalega’s army?
2. Name the chartered company which was in charge with administration of Uganda on behalf of the British colonial government.
3. Why was Capt. F D Lugard sent to Uganda in 1890?
4. Write IBEACo in full.
5. Who founded IBEACo?
6. Why was IBEACo formed?
7. Mention at least three factors that contributed to the bankruptcy of IBEACo.
8. Why is the year 1894 important in the political history of Uganda?
9. Name the flag that was replaced by the Union Jack in 1894.
10. Why do people in Uganda use English in schools and offices of Uganda?
11. Give four reasons that made colonialists to come to Uganda.
12. Which river in Uganda is connected to the colonisation of Uganda?

**Reference**

Mk standard SST pupils book 5 page 85 – 89

Sharing our world bk 5 page 1 – 8

**HOW UGANDA BECAME A NATION**

* A nation is a group of people under one government.

**Types of nations**

* **Monolithic nations**
* **Heterogeneous nation**

1. **Monolithic nation.**

* A monolithic nation is a nation where almost all people speak the same language.

**Examples of Monolithic nations.**

* Rwanda.
* Burundi.
* Buganda kingdom
* Bunyoro kingdom

1. **Heterogeneous nation.**

* A heterogeneous nation is a nation where people speak different languages.

**Examples of Heterogeneous nations.**

* Uganda.
* Kenya.
* Tanzania.
* DRC.
* South Sudan.

**Differences between Monolithic and Heterogeneous Nation**.

|  |  |
| --- | --- |
| **Monolithic** | **Heterogeneous** |
| * People speak the same language | * People speak different languages |
| * Has one major tribe | * Has many tribes |

**How did Uganda become a nation?**

Uganda became a nation through a process that involved adding territories to the protectorate.

* Uniting different independent communities.
* Signing agreements with local leaders.
* Creating Uganda’s boundaries.

**THE 1900 BUGANDA AGREEMENT**

This agreement was signed between Buganda kingdom and the British protectorate government.

**Personalities associated to the 1900 Buganda agreement.**

1. **Bishop Alfred Tucker of C.M.**S- mediated the 1900 Buganda agreement.
2. **Sir Harry Johnstone**-signed on behalf of the British government.
3. **SirApollo Arthur Kaggwa**-signed on behalf of Buganda kingdom.

**Other regents of Kabaka Daudi Chwa 11.**

* Zakaliya Kisingiri.
* Stanslas Mugwanya.

**NB:**

* A regent is a person who rules a kingdom on behalf of a young king .
* Kabaka Daudi Chwa II was still young to sign the 1900 Buganda agreement.
* KabakaMwanga failed to sign the 1900 Buganda agreement because he was in exile.

**Why was the 1900 Buganda agreement signed?**

* To strengthen the British authority over Buganda.
* To prevent further resistance.
* To set up a platform to raise revenue.
* To have an effective occupation of Buganda.

**Terms of the 1900 Buganda Agreement**

* **Land**
* **Taxation**
* **Governance or administration**
* **Boundaries**

**Effects of the 1900 Buganda agreement**

* Thepowers of the kabaka were reduced.
* TheLukiiko was given more powers.
* Buganda kingdom expanded to include the lost counties of Buyaga and Bugangaizi.
* The land of Buganda was divided into Mailo and Crown land.
* Special land was set aside for places of worship such as churches and mosques.
* Hut and gun taxes were introduced.
* The number of Lukiiko members was increased.
* The Kabaka was given the title of His Royal Highness.

**Tooro Agreement of June 1900**

* Signed between Tooro and British government.
* Omukama Kasagama signed on behalf of Tooro Kingdom and Sir Gerald Portal signed on behalf of the British government.

**Effects of the 1900 Tooro agreement.**

* This agreement confirmed Toro’s independence from Bunyoro.
* It brought Toro under the protectorate rule.
* Hut and gun taxes were also introduced.
* All land that was not in use was taken over by the colonial government.

**THE ANKOLE AGREEMENT OF 1901.**

* It was signed between Ankole kingdom and the British government.
* Omugabe EdwardKahaya signed on behalf of Ankole Kingdom.
* Sir Fredrick Jackson signed on behalf of the British government.

ITS EFFECTS

-It confirmed the British control over Ankole.

-The hut and gun tax were introduced.

-Ankole was given territories of Buhweju, Igara, Bunyaruguru and Kayara.

**THE BUNYORO AGREEMENT OF 1896.**

It was signed between Mr.E.J.LBerkerly who represented the British government and Sir Tito Winyi ofBunyoro.

The Bunyoro kingdom came under military rule because OmukamaKabalega had resisted and fought the British colonialists and their Baganda agents.

The Baganda helped the British to defeat Bunyoro and they were awarded 6,000 square miles of land

* In 1933,another agreement was signed between Bunyoro Kingdom and the British government to end the military rule.
* Omukama Andrea Duhaga signed on behalf of the Bunyoro Kingdom.
* Sir Henry Colville signed on behalf of the British government.

**Effects of the 1933 Bunyoro agreement.**

* It enabled the British to collect tax for paying its administrators.
* Bunyoro was put under British rule.
* The powers of the traditional leaders were reduced and given to the central government.

**Reference questions**

1. What is an agreement?
2. For what major reason was the 1900 Buganda agreement signed?
3. Why did the three regents sign on behalf of Buganda?
4. Why was Mwanga unable to sign the 1900 Buganda agreement?
5. Give one way the 1900 Buganda agreement helped to raise revenue for the British protectorate government.
6. Give one way the 1900 Buganda agreement reduced the powers of the kabaka
7. Why was Toro agreement signed in 1900?
8. Why did many youth fear to build huts after the 1900 Buganda agreement?
9. How did colonialists benefit from the 1900 Buganda agreement?
10. Identify three effects of the 1900 Toro agreement.
11. Mention the contribution of NuwaMbaguta towards the colonisation of Ankole kingdom.
12. Give one way treaties were effective in the colonisation of Uganda.

**How the agreements contributed to the creation of the Uganda nation**

* Agreements confirmed separate independent states as provinces of the nation of Uganda.
* Agreements reduced the powers of kings.
* Agreements were proofs that various communities had accepted to be colonised.

**EVOLUTION OF UGANDA’S BOUNDARIES.**

* Evolution of boundaries means creation or fixing of boundaries of Uganda

**A map showing the evolution of Uganda’s boundaries**

**How Uganda’s boundaries evolved.**

1. **Nyanza Province**

* It was transferred from Uganda to Kenya in 1902

**Why was Nyanza province transferred to Kenya?**

* To put the railway under one administration.
* For easy control of the Maasai and Nandi.
* To allow the Uganda government concentrate on developing the North.

1. **West Nile**

* It was transferred from Belgian Congo to Uganda in 1914.
* This was done to ensure maximum control over the Nile

1. **Lando Enclave**

* It was handed over to the Sudanese government in 1914
* This was done to separate the Sudanese from the Acholi.

1. **The North Eastern part of Uganda.**

* It was transferred from Kenya to Uganda in 1926.
* This was to separate the Karimojong from the Turkana to control cattle rustling.

1. **South-western Uganda**

* It was transferred from German East Africa (Tanganyika) to Uganda in 1910.

1. **Western part of Uganda**

* The part close to L.Albert was transferred from Belgium Congo in 1910
* The area close to L.Edward was given to Uganda in order to use the Rift valley as a natural boundary.

**The features used to fix boundaries in Uganda.**

* Western arm of the rift valley.
* Lakes
* Rivers
* Mountains

**Why physical features were used as natural boundaries.**

* They were readily available .
* They are permanent.
* They did not involve any cost.

**Positive results of fixing Uganda’s boundaries**

* Uganda’s size was enlarged.
* It helped to control resistances and peace prevailed
* It helped to diversify the culture of Uganda.

**Negative results of fixing Uganda’s boundaries**

* There was displacement of people.
* Natives lost their historical origin
* It led conflicts among different communities.
* Some tribes were split.
* Some natives lost their land.

**THE BRITISH COMMISSIONERS.**

* A British commissioner is a person responsible for representing the interests of Britain in an area.

The headquarters of the British commissioners were at Entebbe.

**Examples of British commissioners.**

* Sir Harry Johnstone.
* Sir Henry Colville.

NB: The title of commissioner was replaced with Governor.

**THE BRITISH GOVERNORS.**

* A governor is an official appointed to head a country politically controlled by another.

**Examples of British governors in Uganda.**

1. **Sir Hesketh Bell(1905 – 1910)**

* He was the first British colonial governor of Uganda.
* He encouraged the growing of cash crops.
* He constructed many roads in Uganda.
* He started the department of agriculture in Uganda.
* He introduced the first Ford car in Uganda.
* He linked the railway line from Jinja to Namasagali.
* He established steamers on Lake Victoria, Kyoga and Albert.

**Why did the British introduce cash crop growing in Uganda?**

* To get raw materials for their home industries.
* To use natives for cheap labour force.
* To provide a stable source of income to the people to pay tax.

**Why the railway line was extended from:**

1. **Jinja to Namasagali.**

* For easy transportation of cotton to the industries in Jinja.

1. **Kampala to Kasese**.

* For easy transportation of Copper from Kasese to Jinja for smelting .

1. **Tororo to Pakwach(Northern Uganda).**

* For easy transportation of Tobacco and cotton from the West Nile.

NB: The railway line entered Uganda through Tororo town.

1. **Sir Fredrick Jackson (1911 – 1918)**

* He governed Uganda during the first world war which began in (1914 – 1918).
* He started the construction of Mulago Hospital.
* He defeated the Lamogi rebellion between 1911-1912.

1. **Sir Robert Thone Corydon (1918 – 1922)**

* He established the first Legco in 1921.

1. **Sir William Gower (1925 – 1932)**

* He established a department of education during his term of office

1. **Sir Geoffrey F. Archer (1922 – 1925)**

* He promoted formal education by building schools like Makerere College in 1922.

1. **Phillip Mitchel(1935 – 1939).**

* He promoted higher education.
* He turned Makerere College into a University.

1. **Sir Charles Dundas (1939 – 1944)**

* He governed Uganda during the World War II (1939 – 1945).
* He drew a development plan for Uganda.

1. **Sir John Hathon Hall (1944 – 1952)**

* He stopped many riots in Uganda especially in 1949.
* The first political parties were formed during his term of office.
* He formed the 2nd Legco in 1945.
* The first Ugandans to be represented on the Legco. were during his term of office (1945).

1. **Sir Andrew Cohen (1952 – 1957)**

* Owen Falls Dam was completed during his term of office.
* The building of parliamentary structure started.
* Radio Uganda was opened during his term of office.
* Nyanza Textile Limited (NYTIL) was built under his regime.
* He exiled Mutesa II to Britain in 1953.
* He organised the first general elections in Uganda.

1. **Sir Fredrick Crawford (1957 – 1961)**

* The first general election in Uganda was held during his regime in 1958.
* The government health department was formed.
* The construction of the parliamentary building was completed.
* The second general elections were also organised by his government in 1961.

1. **Sir Walter Coutts (1961 – 1962)**

* Independence general elections were held.
* Uganda got independence during his term of office.
* He was the last British colonial Governor in Uganda.

**COLONIAL SYSTEM OF ADMINISTRATION**

* Colonial system of administrationis a way people were ruled or administered.

**Colonial methods of administration.**

* Indirect rule.
* Direct rule.

**Indirect rule in Uganda.**

* This is where local leaders were used to administer on behalf of colonialists.
* Indirect rule was introduced by the British colonialists in Uganda.
* Indirect rule was introduced in Uganda by Capt. Frederick Lugard.
* Local chiefs were in charge of collecting taxes, keeping law and order and administering Justice.

**Ways indirect rule was practised exercised.**

* Employing local kings.
* Employing local chiefs.

**Roles or duties of local chiefs during indirect rule**.

* Collecting taxes.
* Keeping law and order.
* Administering Justice.
* Administering areas on behalf of the British colonialists.

**Examples of local rulers who were used**

* Semei Kakungulu used in Bukedi, Bugisu and Teso
* Kabaka Daudi Chwa – Buganda kingdom.
* Omugabe Kahaya – Ankole kingdom.
* Omukama Kasagama –Tooro kingdom.
* Omugabe Ntare – Ankole kingdom.
* NuwaMbaguta –Ankole kingdom.

**Why did the British colonialists use indirect rule in Uganda?**

* It was cheap to pay the local leaders.
* It reduced the resistance to colonial rule.
* It maintained the traditional institutions.
* The local rulers already had loyalty of the masses.
* The local rulers knew their people better.
* It prevented the problem of language barrier.
* It solved the problem of labour shortage.

**Advantages of indirect rule**

* It maintainedtraditional institutions
* It reduced rebellions or resistance.
* It was cheaper than direct rule.
* Local leaders were trained new methods of administration.
* It solved the problem of language barrier.
* It made the British rule rooted in Uganda.

**Disadvantages of indirect rule.**

* The local leaders lost the trust of their subject.
* The local leaders lost total control over their territories.
* It caused divisions among the natives
* Local leaders were used as puppets.
* It provoked resistance in some areas where agents were sent.

**Direct rule.**

* This was where colonialists ruled the people by themselves.

**Ways direct rule was exercised.**

* Employing Governors.
* Employing commissioners.
* Employing District Commissioners.

**Disadvantages of direct rule**

**-**It led to loss of power of the local leaders.

-It increased African resistance against the colonialists.

-There was language barrier.

-It increased hatred between the natives and colonialists.

**Effects of the British colonial administration in Uganda.**

1. **Positive effects.**

**Economic effects:**

* It led to the introduction of traditional cash crops.
* It led to development of social services like education.
* It led to introduction of monetary economy.
* It enabled people to acquire jobs moreso the educated and professionals.
* It led to the development of practical skills among the locals.

**Social effects:**

* It introduced modern clothes.
* It promoted formal education.
* English was introduced as a new language.

**Political effects**

**-**Modern systems of administrations were introduced.

**-**It enabled Uganda to become a nation.

**-**The native leaders became politically skilful.

**-**Modern laws were introduced in Uganda.

1. **Negative results.**

**Political results:**

* The local people lost their traditional independence.
* There was introduction of foreign unfriendly laws.
* The local leaders lost power over their people.

**Economic results:**

* There was forced labour.
* The natives lost their land.
* There was unfair taxation of the natives.
* It led to over exploitation of natural resources.

**Social results:**

* It undermined traditional cultures.
* Some Ugandans lost their identity.
* There was segregation of people.

Questions:

1.How did the British rule weaken the African Traditional culture?

2.Mention any two areas in Uganda direct rule was applied.

3.State any two advantages direct rule.

4.Why was Uganda’s capital to transferred from Entebbe to Kampala?

5.Why was it easier for the British to control Buganda than Lango sub region?

6.Who was the last British government in Uganda?

7. In which one way did Uganda become a nation?

8.Give two ways the 1900 Buganda agreement affected the local people in Buganda.

9.Mention one way Capt. FD Lugard was useful OmukamaKasagama of Tooro.

10.State any three characteristics of the British administration in Uganda.

|  |
| --- |
| **THE ROAD TO INDEPENDENCE.** |
| * Independence is the political freedom from colonial rule. * The state of being free from control of another country.   **Characteristics of Colonial Administrative system.**   * Unfriendly foreign laws. * High taxation. * Forced labour. * Segregation of natives. * Exportation of unprocessed goods. * High prices of goods sold by foreigners. * Low prices of goods bought from the natives. * Natives were denied to grow cash crops on their own plantations.   **Impacts or effects of the British colonial administration.**   * There was increased poverty. * There was detention of people without trial. * There was displacement of people. * Hut and gun tax was introduced. * People were forced to work without payment. * People worked for long hours without food. * Africans were not allowed to join the Legco. * Africans lost their independence. * There was unemployment as unprocessed goods were exported. * Many natives remained landless. * Some people lost their lives due to harsh treatment. * Those who broke colonial laws were imprisoned. * Some colonial resistors were exiled. |
| **REACTION TO COLONIAL LEGAL SYSTEM**  Reaction to colonial legal system was the way the natives responded to colonial system. |
| **Why people reacted to the colonial legal laws?**   * They had lost their freedom on land. * They were underpaid for the goods they sold to foreigners. * They were denied to grow cash crops on their own plantations. * They were forced to provide labour on the white man’s plantations. * Exportation of unprocessed goods leading to unemployment. * They were forced to join the colonial army.   **Ways Ugandans reacted towards the colonial legal laws.**   * Some Collaborated. * Others resisted colonial laws.   **Ways Ugandans resisted the colonial legal laws.**   * They boycotted goods sold by foreigners. * They staged demonstrations to demand for their rights. * They staged rebellions. * They organised riots. * They formed Associations to demand for the rights of farmers.   **THE LEGISLATIVE COUNCIL (LEGCO).**   * The LEGCO was a law making body during colonial days. * It served as the Parliament (Uganda National Assembly) during colonial days.   **Factors that led to the formation of the LEGCO.**   * The need for laws to govern Uganda. * The need to represent the views of European businessmen. * The need to approve plans for the protectorate. * The demand by the local people to be properly represented. * The demand by Associations for the rights of Africans.   **Formation of the LEGCO of 1921.**   * It was formed during the governorship of Sir Robert ThoneCoryndon. * It was made up of 8 members who were foreigners.   **NB:** African were unhappy with the Legco of 1921 because Africans were not represented.  **The Legislative council by 1945.**   * Sir John Hathon Hall was the governor when the first Ugandans joined the LEGCO. * They were appointed to join the LEGCO in 1945.   **The first Ugandans to join the LEGCO.**   * PeteroNyangabyakiAkiiki-Western Uganda. * KawalyaKaggwa-Central Uganda. * Yekonia Zirabamuzaale-Eastern Uganda.   **NB:**   * Later in 1946,YekosofatiInnyon was nominated to represent the Northern region. * Dr.Apollo Milton Obote was the first Ugandan to be elected to join the LEGCO.   **Reasons why the LEGCO was formed.**   * To make laws for governingthe natives. * To advise the colonial governor. * To get information from various regions of Uganda.   **NOTE:**In 1958,the LEGCO expanded to have representatives at district level and direct elections were organised.  The first speaker other than the governor was **Sir John Griffin.** |
| **THE DEMAND FOR INDEPENDENCE.**  **Reasons why Ugandans demanded for independence.**   * To have control over their resources. * To be free from over taxation. * To be free from forced labour. * To grow cash crops on theirown plantations. * To be able make laws and decisions for their country.   **Factors that led to the demand for independence.**   * Formation of the LEGCO. * Participation in World War 1 and 11. * Formation of the United Nations Organisation (U.N.O). * Formation of political parties. * Contribution of political and Traditional leaders.   **Ways the LEGCO helped in the demand for independence.**   * It gave natives courage to air out their complaints. * It encouraged members to form associations. * It encouraged the use of peaceful ways to demand for independence. * It helped representatives to gain political experience.   **World war 1 and 11.**   * A world war is a war that involves almost all countries of the world.   **Examples of world wars.**   * The First World War (1914-1918). * The Second World War (1939-1945).   **NB:**Uganda got involved in the two world wars because Britain, her colonial master participated in it.  **How the world wars helped in the demand for independence.**   * It united people in the demand for independence. * The veterans gained fighting skills. * The war veterans learnt the weaknesses of colonialists. * The veterans learnt leadership skills. * The veterans gained knowledge and political ideas about the importance of Liberation.   **The role of traditional leaders in the demand for independence.**   * Some traditional leaders demanded for the independence of their kingdoms from the independent state e.g. KabakaMutesa 11. * Traditional leaders staged rebellions. * Traditional leaders organised boycotts.   **The Kabaka crisis of 1953-1955.**   * This was a period when the Kabaka Mutesa 11 was exiled. * Kabaka Mutesa 11 was exiled by Sir Andrew Cohen to England in November 1953.   **Causes of the Kabaka crisis or Why Kabaka Mutesa11 was exiled.**   * KabakaMutesa 11 refused the idea of the East African Federation. * Kabaka Mutesa 11 demanded for a separate independence of Buganda. * The Kabaka refused to send representatives to the LEGCO.   **Effects of the Kabaka Crisis of 1953-1955.**   * It led to protests in Buganda. * It led to strikes and demonstrations. * The Baganda boycotted boarding buses owned by the British and Asians. * Baganda refused to buy from shops owned by the British and Asian traders.   **The Namirembe Agreement of 1954.**   * It was signed to organise the peaceful return of KabakaMutesa 11 from exile. * **Sir Keith Hancock-**signed on behalf of the British government. * **Mr Michael Kintu-**signed on behalf of Buganda kingdom.   **Terms of the Namiremmbe agreement.**   * Buganda was part of Uganda. * The Kabaka was a constitutional leader. * The Katikiro (prime minister) was responsible for the Lukiiko.   **Why did Buganda refuse to send representatives to the LEGCO?**   * To show interest for her separate independence. * Buganda had her own parliament or Lukiiko it respected.   **The role of Kabaka Edward Mutesa 11 in the demand for independence.**   * He demanded for Buganda’s independence from the British. * His being sent to exile united people to demand for independence. * He formed an alliance with U.P.C which helped Obote win the 1962 independence elections.   **Ways Ugandans demanded for independence.**   * Forming of political parties. * Forming of Associations. * Having open rallies. * Writing to colonial government.  |  | | --- | | **FORMATION OF POLITICAL PARTIES.**   * A political party is a group of people with the same political goals of ruling a country.   **Reasons for the formation of political parties.**   * To demand and prepare Uganda for independence. * To provide leadership skills to future leaders. * To sensitise on their rights. * To expose the bad practices in the colonial government. * To unite people of different backgrounds. * To demand for more representation on the Legco’   **Examples of political parties.**   * Uganda National Congress.(U.N.C) * Democratic Party (D.P). * Uganda Peoples Union (U.P.U). * Uganda People’s Congress (U.P.C). * Kabaka Yekka Party (K.Y).   **The Uganda National Congress (UNC)**   * It was the first National political party to be formed in Uganda. * It was formed by Ignatius Kangave Musaazi in 1952.   **Objectives of UNC.**   * To struggle for Uganda’s independence. * To unite all Ugandans. * To promote democracy. | | THE DEMOCRATIC PARTY (DP) | | * The Democratic Party was founded by Joseph Kasolo in 1954. * He was succeeded by Matayo Mugwanya and later Benedicto Kiwanuka in 1958.   **Objectives of D.P.**   * To demand for the independence of Uganda. * D.P was to protect the interests of Roman Catholic. * To demand for justice and the rule of law.   **THE UGANDA PEOPLE’S CONGRESS. (U.P.C**)   * It was formed Dr Apollo Milton Obote in 1960.   **KABAKA YEKKA (KY).**   * It was formed by S. Masembe and Augustine Kamya.   **Objectives of K.Y**   * To defend the Kabaka and his kingdom. * To protect the interests of Buganda.   **THE GENERAL ELECTIONS IN UGANDA.**   * They were organised to prepare Uganda for independence.   **Note:**   * D.P under Benedicto Kiwanuka won the first general elections. * Benedicto Kiwanuka became the first chief minister of Uganda. * The U.P.C-K.Y alliance under Dr.A.M.Obote won the second general elections. * U.P.C under Dr.A.M.Obote led Uganda to her independence on 9th October, 1962. * Dr.A.M.Obote became the first Prime minister of Uganda.   QUESTIONS.   1. How did the Kabaka Yekkahelp Dr. Obote to become the first executive Prime Minister of Uganda? 2. Why were many political parties formed in Uganda in the late 1950s? 3. Why did Kabaka Muteesa II reject the East African Federation? 4. Who signed the Namirembe agreement? 5. On behalf of the Kabaka of Buganda 6. On behalf of the Queen of England. 7. Why didn’t the Kabaka Muteesa II sign the Namirembe agreement of 1954? 8. Why is Ignatius Kangave Musaazi remembered in Uganda’s history? 9. How did IK Musaazi fight for the rights of Uganda farmers? 10. Why didn’t Ben Kiwanuka become the Prime Minister of independent Uganda? 11. Name the organ of government that does the same work like the LEGCO did. 12. Give two ways political parties demanded for independence in Uganda.   **END** | |
|  |

**PRIMARY FIVE SOCIAL STUDIES LESSON NOTES FOR THIRD TERM 2023**

**WEEK ONE (LESSON ONE)**

**UGANDA AS AN INDEPENDENT STATE/NATION**

**A Nation**

What is a nation? A group of people living together within the same geographical and political boundaries under one government.

**TYPES OF NATIONS**

**Homogeneous nation**- A group of people who may speak the same language and have the same culture.eg Swazi of Swaziland and Banyarwanda of Rwanda.

**Heterogeneous nation** ;A nation made up of different ethnic groups.eg Uganda which has many languages spoken with different cultures.

**4.An Independent Country**

Is a country free from colonial rule.

Uganda got independence on 9th October 1962.

**5. Independence.**

-this is the freedom from political, social and economic oppression.

-An independent country makes its own laws and decisions.

-An independent country is a country which is not ruled by another country.

**6.The independence of Uganda.**

-Uganda got her independence on 9th October,1962**.**

-On the independence day, the following activities took place.

a)The Uganda flag was raised while the British Flag (Union Jack) was lowered.

b) The flag was raised by Major Akorimo Kanuti.

c)The National Anthem was sung for the first time**.**

**ACTIVITY;**

* **Name the first president of Uganda.**
* **Which political party led Uganda to independence?**
* **Name the following people;**
* **The first president of Uganda.**
* **The first executive Prime Minister of Uganda.**
* **Name the first and last British Governors of Uganda.**
* **What are the advantages and disadvantages of an independent Nation?**

**9.Symbols of a nation**

i) National Anthem.

ii) National Flag.

iii) National Coat of Arms.

iv) National Emblem.

v) National Constitution.

vii) National Motto.

vii) National currency.

**10. Importance of National symbols**

-Used for identification.

-They show independence.

- They symbolize unity

**Uganda National Flag**

It replaced the British Flag called Union Jack and the union jack replaced IBEACO flag

The Uganda National Flag was first hoisted officially on 9th October 1962 by Major Akorimo Kanuti.

**Who designed the Uganda Flag?**

Grace Ibingira.

**Colours of the Uganda Flag**

|  |  |
| --- | --- |
|  | flag |
| colorbar | |
|  |  |
|  | |
|  |  |
| colorbar | |

**a)Black**

The people of Uganda are black.

**b)Yellow**

Abundant sunshine.

**c)Red**

It represents brotherhood.

**QUESTIONS**

1. **When is Uganda Flag flown at half mast?**

During national mourning days.

When a very important person has died and the Parliament declares national mourning.

**2. Mention places where the Uganda National flag is flown?**

* At parliamentary building.
* State house.
* Bank of Uganda.
* Police Station.
* At schools.
* Uganda embassies and high commissions.
* Ministry headquarters
* International airports.
* On VIP vehicles e.g. the president, Vice president and cabinet ministers.

**3.How to care for the National Flag/How to use it**

* Should not be used to wrap things.
* Should not be burnt.
* Should not be allowed to touch the ground.
* The crested crane should face the pole when it is being flown.
* Should not be left in rain.

**4. What does the crested crane represent as it is on National Flag?**

It represents the national emblem.

**5. Why do Ugandans carry the National Flag when going for International events/matches?**

To easily be identified as Ugandans.

**6. Importance of the Uganda National Flag**

* It is a symbol of independence.
* It shows patriotism.
* It is a symbol of identity.

It promotes national unity.

**7. Why is the National Flag put on the Presidential official car?**

i. For easy identification.

Ii, To show respect.

**8 How do people Uganda show respect to the national flag?**

By standing still when it is being raised.

**UGANDA NATIONAL EMBLEM**

|  |  |
| --- | --- |
|  |  |
|  | |
|  |  |
|  | |
| crane |  |
|  | |

The crested crane was chosen as national emblem

**Characteristics of a crested crane**

* The crested crane is gentle.
* The crested crane is peaceful.
* The crested crane is humble.

**9. What does the crested crane symbolize to Ugandans?**

* It symbolizes humbleness of Ugandans.
* It symbolizes peacefulness of Ugandans.
* It symbolizes gracefulness of Ugandans.
* It symbolizes gentility of Ugandans

|  |  |
| --- | --- |
| **10. Objects and places where the crested crane can be found** |  |
|  | |

* The National Flag.
* The Parliamentary building.
* The security flag.
* The National New Currencies.
* The Hats of police.
* The Hats of the army.

**11. Why is the crested crane drawn standing on one leg?**

* It shows that Uganda is still developing.
* It shows that Uganda is moving forward in development

**The Uganda National Anthem**

Our country’s National Anthem was sung first officially on 9th October.

This is when Uganda got independence.

Before, Uganda got independence the British anthem was always sung

.

**THE UGANDA NATIONAL ANTHEM**

Oh Uganda! May God uphold thee?

We lay our future in they hand.

United free for liberty,

Together we will always stand.

Oh Uganda! The land of freedom.

Our love and labour we give.

And with neighbours all

At our country call

In and friendship we live.

Oh Uganda! The land that feeds us.

By sun and fertile soil grown.

For our own dear land

We shall always stand

The pearl of Africa’s crown.

**1. In which way do people respect the National Anthem?**

* By standing up right when it is being sung.
* The scouts and army salute.
* The disabled who can’t stand raise their right arm as they are seated.

**2. Occasions at which the National Anthem are sung**

* At school assembly.
* On independence days
* When opening the parliamentary sessions.etc

**3. Importance of a National Anthem**

* It is a symbol of a nation.
* It is a symbol of independence**.**
* It is a symbol of identification.
* it promotes unity among the people
* Expression of love for our country.

**Important things that can be learnt from national anthem**

* Believe in one God.
* There is unity and freedom in Uganda.
* Ugandans are living in peace with neighbours.
* It reminds Ugandans of fertile soils.
* It reminds Ugandans about cool climate.
* Ugandans are obedient people.
* Vii Determination to remain free from foreign control.

**3.What are the similarities between the motto and the Uganda first verse?**

* Both show that Uganda is a God fearing country.

**4. Why should Ugandans stand up right when the national anthem is being sung?**

* T show respect our nation

**Uganda National Motto**

**FOR GOD AND MY COUNTRY**

**Importance of Uganda Motto**

* It was a symbol of a National identity.
* It shows independence.

**Lessons of the National Motto**

Uganda is a God fearing country.

**National Coat of Arms**

* It was designed by Mzee Paul Mukasa.
* It is put on the official car of the president.
* It is printed on national currency.

What does the coat of arms represent?

It represents political, cultural, social and economic aspects of a country.

**Features on Coat Arms**

|  |  |
| --- | --- |
|  |  |
|  | |
| crest2 |  |
|  | |
|  |  |
|  | |

**Crested Crane**

* It symbolizes peacefulness of Ugandans.
* It symbolizes humbleness of Ugandans.
* It symbolizes gentility of Ugandans.
* It symbolizes the gentleness of Ugandans.

**The Kob**

Symbolizes wildlife.

**The Drum**

* It represents traditional means of communications.
* It represents culture and entertainment.
* It shows culture

**The Shield and Spears**

Represents traditional weapons for defence.

**The Blue strips on top of the shield**

Represents lakes and rivers.

**The Blue strips at the bottom**

Represents the source of the River Nile.

**Green colour**

Represents savanna vegetation.

**The Sun**

It represents abundant sunshine.

Represents tropical climate.

**Cotton and Coffee**

Represents Ugandan traditional cash crops.

Shows Uganda’s is agricultural country.

**Black Colour**

Represents Black Africans.

The colour of Ugandans

**National Motto**

It shows Uganda is a God fearing country.

Ugandans are God fearing people

**Importance of National Coat of Arms**

* It is a symbol of independence.
* It is a symbol of nation.
* It is a symbol identity.
* Promotes unity among people

**Other symbols of an independent nation**

**National language**

**-Language commonly spoken by majority of the people in a country.**

**Importance.**

* **It promotes trade.**
* **Easy communication.**
* **Creates unity among the people.**

**National capital city**

**-It serves as administrative Centre, commercial Centre, and communication**

**Centre and education Centre.**

**Kampala is the capital city of Uganda**

**Entebbe used to be the capital city of Uganda during colonial time**

**The National Independence Monument**



**It was designed by Gregory Maloba to commemorate Uganda’s independence**

**FEATURES**

**A Child**

It represents a New Nation Uganda.

It was unveiled by Dr. Apollo Milton Obote

**Importance of National Monument.**

It is a sign of independence.

**National currency.**

* Uganda’s currency is Shillings.
* Cowrie shells were the first form of money to be used in Uganda, followed by the Indian Rupees
* Fifty shillings is the smallest denomination and a fifty thousand note, the largest.
* The central Bank of Uganda is what prints and mints the new money.

Other duties of the central bank

* To license the commercial banks
* To control money inflation in the country
* To reduce fake money in the circulation
* To keep the country’s wealth

Examples of commercial banks in Uganda

* Eco bank
* Crane bank
* Post bank
* KCB
* UBA bank
* Tropical bank
* Bank of Africa Uganda

Importance of commercial banks

* They create jobs
* They keep money
* They give loans to people
* They keep important documents for people like wills

What is money?

Money is anything that acts as a medium of exchange.

**Characteristics of money (Qualities of good money)**

* It should be portable.
* It should be divisible.ie into small denominations.
* It should be valuable.
* It should be acceptable.

Qn.1. Give one use of money.

1. What was the first currency to be introduced?
2. Which group of people introduced the shillings in Uganda?

**DEMOCRACY**

A system of governance that gives people freedom to exercise their rights

It may also mean the government of the people by the people and for the people

**Advantages of democracy.**

* It promotes equality.
* It promotes rule of law.
* It respect for human rights.
* It promotes good governance.
* It promotes national unity.
* It promotes easy transition of leadership.

**Challenges facing democracy in Uganda.**

* Political greed- many leaders don’t want to leave power.
* Failure to organize and conduct free and fair elections.
* Widespread poverty amongst the electorate.
* Tribalism.
* Nepotism
* Democracy is very expensive to practice

**Roles of citizens in practicing democracy**

* Participating in national elections.
* Ensuring proper use of government funds.
* Reporting wrong doers.
* Ensuring law breakers are tried in courts of law.
* By protecting human rights

**THE GOVERNMENT OF UGANDA**

What is a government?

This is a group of people given the executive powers to rule the country.

A group of people who exercise powers and carry out policies on behalf of a state.

A ruling body of a country

Duties/ roles/ responsibilities of a government to its citizens

* To protect human rights
* To keep law and order
* To construct good schools
* To construct hospitals
* To protect people and their property
* To make laws
* To amend laws
* To make the national budget

**Systems/types of government in Uganda.**

* Central Government
* ( Local Government

**Note**

* The Central Government is in charge of National affairs.
* The Local Government is in charge of District affairs.
* The Central Government checks over the activities of Local Government.
* Local Government is under the **Ministry of Local Government.**

**Organs of Democratic Government**

* Legislature/Parliament.
* Executive.
* Judiciary.

**The Legislature**

It is made of:

* The speaker of Parliament.
* The Deputy speaker of Parliament.
* Member of Parliament.
* Sergeant of Arms/
* The clerk to Parliament.

**The Speaker of Parliament**

He or She chairs the Parliament meetings/debates.

**The Deputy Speaker of Parliament**

She or He chairs Parliamentary meetings in absence of the speakers.

**Members of Parliament**

Members of Parliament represent constituencies/special groups.

**How useful are members of parliament to the people they represent?**

**What is a republic?**

It is a country where al powers belong to the president

**A Constituency**

Is an area represented by a Member of Parliament.

**Groups of people represented in the parliament of Uganda**

* Youths.
* The Army.
* The Workers.
* The Women.
* The persons with disabilities

Who are the Ex-officios?

There are ministers without constituencies in the parliament called ex-officio persons.

Ex-officio persons are included in the Parliament because of their positions but they do not have voting rights in parliament.

These ministers are appointed by the president to join the Parliament.

**Sergeant of Arms**

He/she is the senior police officer in the Parliament.

Maintains order in the house.

Alerts the House when the Speaker is about to enter.

Carries the Mace as the speaker enters the Parliament.

Ensures that nobody disturbs the House during Parliamentary sessions.

**A Mace**

Is a stick carried as a symbol of power of the Speaker.

The mace represents the power of:

* The Speaker
* The Judges
* The Deputy Speaker
* The Magistrate.

**The Clerk to Parliament**

He records the minutes in Parliament.

**How does one become a member of Parliament in Uganda?**

Through elections.

Through appointment

**Qualifications of the Members of Parliament**

* Should be citizen of Uganda.
* Should be a registered voter.
* Should have a minimum level of Education of Senior.
* Should have A’ level certificate.
* Should be 18 years and above.

**Functions of Legislature**

* To make laws.
* To amend laws
* To approve National budget.
* To approve persons appointed by the president egg Vice President, Prime Minister etc.
* To monitor Government’s policies
* To check on how the government spends public money.

**Note: The current speaker of parliament of parliament is Hon Rebecca Kadaga and the deputy is Jacob Oulanya**

**SQS**

Write LEGCO in full

Legislative council..

**How was the work of Legco similar to Legislature?**

LEGCO used to make laws and so does the Legislature.

What is an election?

This is a process of choosing a leader/political leader through casting votes.

Why should people choose their own leaders?

To exercise their democratic rights

To get leaders of their choice.

Which body in Uganda organizes national elections?

Uganda Electoral Commission.

**Who is the current chairman of the Electoral Commission?**

**State the duties of the Electoral Commission.**

* To register voters.
* To provide Civic Education.
* To supply ballot paper.
* To demarcate electoral area
* To declare electoral results.
* To count votes.

**Under what ministry is the electoral commission?**

Ministry of Justice and Constitutional Affairs.

**What is bye election?**

Is election held to fill a vacant political post

**Causes of a bye election**

* If a political leader dies
* If a political leader retires
* If a political leader runs insane
* Self-exile of a political leader
* Life imprisonment of a political leader

**Systems of elections**

Secret ballot system

Open elections

**Secret ballot system**

This the system where a voter is given a piece of a ballot paper, he or she indicates the choice of a candidatesecretly and cast it into a ballot box.

**Advantages of secret ballot system**

* **Voters select their leaders without fear.**
* **It is time saving.**
* **It can be easily monitored by use of computers.**

**Disadvantages of secret ballot system.**

* It is very expensive.
* Elections can easily be rigged.
* Announcing final results take long.

**Open elections.**

These are elections held by either voters lining up behind the candidate or raising up their hands.

**Advantages of open elections**

* Results can’t be easily rigged.
* It is cheap to carry out.
* The illiterate find it easy to take part in this election.

**Referendum**

Election organized to decide on political issues.

**Other terms related to elections**

**Polling station**

Is the place where voters go to cast their votes

**Ballot paper**

Is a special paper used by voters to cast their votes.

**Presiding Officer**

Heads all the election activities at a polling station.

**Ballot box**

This is a special box in which voters cast their votes.

**Polling Assistant**

This is the person who helps the presiding officer at polling Station

**Voters’ register**

**This** is a list with names and photographs of voters.

**Voters’ card**

It is a document that is given to a registered voter.

**Examples of electoral leaders in Uganda.**

* Presiding officer
* Polling assistant
* Election constable
* Returning officer

**How is the elections of youth members different from MPs**

A youth member is elected through electoral colleges while an MP is elected by the adult suffrage.

**Give the meaning of;**

1. A bill ;A proposed law in the parliament.-
2. An Act; Is a bill which has been passed and signed by the president.

**Electoral College**

This is a group of people chosen to represent others during elections.

**MPs elected through Electoral College.**

* Army representatives.
* Youth representatives

Worker representatives.

* Disabled persons representatives.

During Amin’s regime Uganda was ruled by **Decree**.

**LESSON SEVEN**

**JUDICIARY**

It is made of the:

* Lawyers
* Magistrates
* Judges
* Justices

The highest court is the **Supreme Court** headed by **Chief Justice**.

The Chief Justice heads the **Judiciary.**

**Justice Bart Katurebe is the chief justice of Uganda**

**Functions of the Judiciary**

* To interpret the law.
* To punish law breakers.
* Settles disputes and conflicts in courts of law.
* Protects the rights of citizens.

**Courts of judiciary in Uganda**

**-Local council courts**

**-Magistrates courts**

**-High court**

**-Court of appeal / constitutional court**

**-Supreme court which is the highest.**

**Executive**

It is the ruling organ of the Government

The executive is headed by the President.

**It consists of:**

* The president
* Vice president
* Prime ministers
* Cabinet ministers
* Civil servants.

The Public Service Commissioner recruits Civil Servants in a country.

**The permanent secretary** is the highest civil servant in any ministry.

-He or she is the chief accounting officer.

**The Civil service** is made up of government ministries and departments.

**Civil servants** are workers employed in different government ministries.

The principle is the **Prime Minister.**

He is the leader of government business.

**THE PRESIDENT**

* He heads the Executive.
* He is the commander in chief of Armed forces.
* He is also the chairman of the council of Ministers/Cabinet.
* He appoints a minister and vice president.
* He governs/heads/rules the state.
* Represents the country in international affairs.
* He pardons people on death sentence.

**Functions of the Executive**

* Implements laws.
* Collects and spends revenue.
* Protects people and their property.
* implements government policies.
* To maintain law and order.

**The National Constitution**

A Constitution is a set of laws by which a country is governed.

**A supreme law used to govern a country.**

**Constitutions in Uganda**

The 1962 Constitution (Independence)

The 1966 constitution (pigeon hole constitution)

**1967 Constitution**(Republican constitution)

* It was written by Geoffrey Lukongwa Binaisa and Koffi(Ghananian)
* It gave the President Executive Powers to rule the country.
* It abolished kingdoms and chiefdoms.
* Uganda was declared a Republic.

**NB**

A republic is a country where all powers belong to the president

**The 1995 Constitution**

The constitution commission was set up to get views of Ugandans.

It was led by Benjamin Odoki.

It is sometimes called the people’s constitution because it was made depending on the views, opinions of the people

**The Constituent Assembly**

Mr. Stephen Akabway was the chair person of the interim electoral commission that organized the election of the CADs

Delegates (CADs) who were elected in 1994 discussed the 1995 constitution.

**JAMES WAPAKHABULO**

Chairperson of Constituent Assembly (His Deputy was Professor Victoria Mwaka)

The 1995 Constitution was **promulgated** (Launched) on **8th October 1995 at the Constitutional Square formerly City Square.**

**Give the importance of National Constitution**

* It protects human rights
* It promotes democracy
* It promotes a peaceful change of government
* It promotes peace

**THE GOVERNMENT REVENUE AND ITS SOURCES.**

**Revenue is the money government earns**

**Sources of government revenue.**

* Through taxes.
* Through privatization.
* Through loans.
* Through court fines.
* Through grants.
* Through export of goods.
* Through donations
* Through tourism.
* licenses

**TAXES**

**Excise duty**

This is the tax charged on locally manufactured goods.

**Customs Duty**

Tax charged on imports.

**Income Tax**

It consists of:

**PAYE:** Pay As You Earn.

It is charged on personal income.

**Company Tax**

It is charged on company profits.

**Value Added Tax ( VAT)**

It is charged on consumer goods/goods purchased in the country.

N.B. Graduated Tax was suspended because it was expensive to collect and a burden to the citizens.

**Reasons why people pay tax**

To enable the government get money to build:

* Schools.
* Build hospitals.
* Paying civil servants.
* Building roads.
* Paying school fees for children under UPE.

**Services on which the government spends its money**

* Education services.
* Security services.
* Transport and communication.
* Health services.

**Ways of the government spend its money**

* By building hospitals
* By building schools.
* By paying civil servants.
* By building roads.
* By repaying loans

**UGANDA REVENUE AUTHORITY ( URA)**

This is the body responsible for collecting taxes in Uganda

**Duties of URA**

* It collects taxes.
* It carries out tax education.
* It assesses taxes.
* It controls smuggling of goods.
* It gives tax education to the people

**URA Is under the** **ministry of Finance and Economic Planning**

**Problems faced by URA**

* Smuggling of goods.
* Corruption.
* People avoid paying taxes.

**Give one reason why people dodge paying taxes**

* It is expensive.
* People do not see the value of paying taxes.
* Lack of tax education.

**NB Grant**

This is the money given to the country to solve a particular problem.

**Donation**

This is the assistance given to a country according to its needs

**BUDGETING**

This is the estimate of income and expenditure of the country per year.

**Parts of the Budget**

* Income
* Expenditure

**Types of Budgets**

**Surplus Budget**

This is when the income is more than expenditure

**Advantages of Surplus Budget**

* The government is able to fulfill the needs of the people.
* It controls borrowing.
* It encourages investment.
* It encourages development
* A country does not depend on foreign aid

**Deficit Budget**

This is where expenditure is more than income.

**Disadvantages of Deficit Budget/Loss budget**

* It leads a country into debts
* It leads to borrowing of money
* The government is not able to fulfill the needs of the people.
* It leads to tax hikes.
* A country depends on foreign aid

**Balanced Budget**

This is when the income equal to expenditure.

**Reasons why there is need for budgeting**

* To spend money wisely
* To identify priorities.
* For easy accountability.

**The National Budget is under Ministry of Finance and Economic Planning.**

**CITIZENSHIP ( this is a state of belonging to a particular country.)**

**Who is a Citizen?**

Is a person who belongs to a particular country according to the constitution

**How one becomes a citizen of Uganda?**

* By Birth
* By Descent
* By Registration
* By Adoption
* By naturalization

**Who is a citizen by birth?** Is a person born in Uganda although his/ her parents are not Ugandans

**Who is a citizen by descent?** This is a person whose parents and ancestors are indigenous Ugandans.

**Who is a citizen by registration? -**This is a person whose parents are not citizens but he/she applies and is registered as a Ugandan.

-The immigration’s department is in charge of registering people who would like to become Ugandan citizens.

**Who is a citizen by adoption?** This is a child (person) who is adopted by a Citizen of Uganda.

Who is a citizen by naturalization?

**A person who has stayed in Uganda for long.**

**When a foreigner gives up citizenship of his country and takes special oath**

**How can one lose the Citizenship of Uganda?**

* By spying on Uganda for another country.( for a registered citizen)
* Through joining an army of an enemy country of Uganda.

**DUTIES/RESPONSIBILITIES OF A CITIZEN OF UGANDA**

* Should pay taxes in time.
* Maintain law and order.
* Participate in National Elections.
* Take his/her children to school.
* To preserve national property.
* To protect the environment.
* To protect human rights.
* Report law breakers.
* Take children for immunization.

**Human Rights**

This is the freedom supposed to be enjoyed by all people.

**Examples of Human Rights**

* A right to live.
* A right to own property.
* A right for fair trial in courts of law.
* A right of freedom of speech.
* A right of freedom of press
* A right in freedom of Association.
* A right to freedom of worship.
* A right to vote/elect leaders.

**PROTECTION OF HUMAN RIGHTS .**

* Bodies which protect human rights in Uganda.
* Uganda Human Rights Commission.
* Federation of Women Lawyers.( FIDA)
* Uganda Human Rights Initiative.

**INTERNATIONAL ORGANIZATIONS**

* Amnesty International
* Human Rights Watch

**Forms of Human Right abuse.**

* Denial of fair judgement in court.
* Mistreating a person for unjustified case
* Denial of freedom of movement.
* Denial of freedom of speech

**Children’s Rights**

This is the freedom enjoyed by children.

**Examples of children’s rights**

* a right to eat food
* a right to education
* a right to medical care
* a right to parental love
* a right to a clan
* a right to a name

**Reasons why children should know their rights**

* So that they are not exploited.
* So that they are not abused.
* To live happily and peaceful.
* To develop their skills.

**Child Abuse**

**What is Child Abuse?**

It is the violation of the children’s rights.

**Forms of child abuse**

* + Physical
  + Emotional
  + psychological

**ways how the children’s rights are abused in Uganda**

* Child sacrifice
* Corporal punishment
* Child labour
* Defilement
* Child kidnap
* Denial of a name
* Child battering
* Bad cultural practices
* Children are not given food/shelter
* Children are not taken to school
* Children are not give clothes

**Ways of controlling Child Abuse**

* Sensitizing people/masses about children’s rights.
* Teaching children about their rights.
* Enforcing laws against laws to protect children’s rights.
* Encouraging children to move in groups

**Note: The vice chairperson LC1 is responsible for protecting the rights of children**

**Causes of Child Abuse**

* Poverty
* Ignorance
* Insecurity in some areas.
* Bad cultural practices (Cultural beliefs).
* Domestic violence.
* Divorce of parents.
* Death of parents.
* Alcoholism
* Indiscipline among children.

How have children contributed to child abuse?

By being undisciplined.

**Reasons why children leave their homes to go on streets**

* Death of parents.
* Cultural beliefs.
* Indiscipline of children.
* Divorce of parents.
* Insecurity.
* Bad peer groups.

**LESSON THREE**

**POPULATION SIZE AND DISTRIBUTION IN UGANDA AND HER RELATIONSHIP TO ECONOMIC PLANNING**

**What is Population?**

This is the number of people living in an area at a given time.

**Population Census**

This is the official counting of people living in a country.

The first population census was carried out in 1921 and Uganda had three million people.

The most recent census was carried out was around 34million people in 2014.

Population census is carried out after an interval of ten years (10yrs).

**Population in Uganda 1929---2002**

**Year population**

**-1929 2,960,000**

**-1959 6,600,000**

**-1969 9,500,000**

**-1980 12,600,000**

**-1991 16,200,000**

**-2002 24,700,000**

**-2014 34,000,000**

**State any one reason why population census is carried out after ten years**

It is expensive.

It is a government policy.

It gives enough time for estimation and planning.

To enable population changes take place in the country.

**Information needed during population census**

* Level of education.
* Age.
* Sex.
* Number of children.
* Number of animals.
* Religion
* Occupation
* Marital status
* Type of housing
* Language spoken

**Reasons why the government carries out census**

* To plan for citizens.
* To know birth and death rate.
* To know the number of people in our country.
* To demarcate electoral areas.
* To determine the level of poverty.
* To determine the level of unemployment.
* To determine the level of illiteracy.

**Problems faced by the government when conducting population census**

* Poor transport system.
* Insecurity in some areas.
* Harsh weather (Bad weather).
* Ignorance among people.
* High rate of illiteracy.
* People give wrong information.
* Cultural beliefs.

**SQS**

**Who is an Enumerator ?**

This is a person who carries out population census.

**What is Census Night?**

This is the night before census (Census day).

**Which ministry is responsible for organizing census?**

Ministry of Finance and Economic Planning

**Who is the minister of Finance and Economic Planning?**

**Matia Kasaijja**

**Population Growth**

This is the gradual increase in the number of people living in an area at a given period of time.

**Causes of high population growth in Uganda**

* polygamy
* High fertility rate among women.
* Plenty of food.
* Improved medical care.
* Improved security.
* High immigration rate.
* The culture of early marriage.
* Religious beliefs.
* Inadequate family planning services.

**Advantages of high population growth**

* It creates enough labour force.
* It creates a large tax base
* It creates ready market for goods.

**Problems/disadvantages of high population growth**

* High crime rate.
* Poor sanitation
* Unemployment.
* Destruction of the environment
* Land fragmentation.
* Shortage of accommodation.
* Shortage of land.
* Shortage of food.
* Easy spread of diseases

**Reasons why it is difficult to control high population**

* Poverty amongst people.
* Ignorance among people.
* Religious beliefs.
* Illiteracy

**Population Distribution**

This is the way people are spread in an area.

**Factors which influence population distribution**

* Vegetation
* Climate
* Industrialization
* Job opportunities
* Soils
* Urbanization
* Presence of social services.

**Ways in which the government can control population growth**

* Encouraging better family planning methods
* Educating people about the dangers of population growth.
* Discouraging early marriages.
* By discouraging polygamy.
* Rewarding small families

**Natural factors that can reduce/check the population an area**

* Floods
* Landslides
* Outbreak of diseases
* Hail storms
* Earth quakes
* Famine
* Volcanic eruption
* Lightning

Man made factors that check the population of an area.

* Wars
* Pollution
* Accidents.

**DENSE POPULATION**

This refers to very many people living in a given area.

**SQS**

**Give reasons why areas around Lake Victoria densely populated**

Presence of fertile soils for agriculture.

Presence of reliable rainfall.

**State any two reasons why slopes of mountains are densely populated**

Presence of favourable climate for farming

Presence of fertile volcanic soils.

**State two reason why people settle on the banks of River Nile**

Presence of reliable rainfall.

Presence of fertile soil.

**What is sparse Population?**

This is refers to a low population.

|  |  |  |
| --- | --- | --- |
| DENSE POPULATION | MODERATE POPULATION | SPARSE POPULATION |
| Kabale  Kampala  Rukungiri  Mpigi  Mbale  Iganga  South western Uganda.  Slopes of Mt. Elgon and Rwenzori  Shores of L.Victoria | Apac  Soroti  Kumi | Kotido Nakapiririt  Moroto  Areas around George and Albert lakes |

**Disadvantages of small population**

* Shortage of market for goods.
* Low food revenue.
* Shortage of labour force.
* The is under utilization of resources.

**OVER POPULATION**

This is where the number of people is more than the resource available.

**Under Population**

This is where the resources available are more than the number of people.

**Demography**

This is the study of population.

**Optimum Population**

This is where available resources are equal to population.

**Population Density**

This is the average number of people living in an area per square kilometer.

**Example**

1. An area has a population of 5,000 people. Find its population density if the area is 10km2

Pd = No. of People

Area

5000

10

= 500 People per square km.

2. An area of 20km2 has a population of 20,000 people. Find the Population Density. P.d = 20,000

20

= 1,000 People per square km

**Population Explosion**

This is the sudden increase of the number of people in an area.

**Causes of population explosion**

Refugee influx

Immigrations