



THE DREAM EDUCATION CONCERN

"Quest for excellence"



PRIMARY SEVEN PLACEMENT SET- 1 -2025

INTEGRATED SCIENCE OFFICIAL MARKING GUIDE



A PRODUCT OF THE DREAM EDUCATION CONCERN

FOR ALL EXAMINATIONS FROM BABY TO P.7

**THE DREAM PUBLISHERS OF QUALITY ASSESMENTS, WORKBOOKS, COMPANION BOOKS, PLE REVISIONBOOKS,
HOLIDAY PACKAGES, TEACHER'S TRAINING, CUSTOMISED HOLIDAY PACKAGES, REPORT CARD PRINTING
AND OFFLINE SCHOOL MANAGEMENT SYSTEM**

TURN OVER

SECTION A (40 MARKS)

| NO | RESPONSE AND RELATED CONTENT | CLASS | TOPIC | TERM |
|----|--|-------|------------------------------------|------|
| 1 | <p>Give the meaning of the term brooding.</p> <p>Brooding is the giving of special care to chicks below eight weeks.</p> <p>Related content</p> <p>Types of brooding</p> <ul style="list-style-type: none"> -Natural brooding -Artificial brooding <p>Natural brooding</p> <p>Natural brooding is a method where a mother hen takes care of her chicks</p> <p>Artificial brooding</p> <p>Artificial brooding is a method where chicks are kept in a special place called a brooder</p> <p>A brooder</p> <p>A brooder is a special structure where chicks below 8weeks of age are kept and cared for</p> <p>Advantages of Natural brooding</p> <ul style="list-style-type: none"> -Natural brooding is cheap to farmers -The hen looks or food from the environment -Toe pecking is reduced in chicks because they move with their mother -It saves the farmer from buying artificial brooder -The hen provide security for the chicks <p>Disadvantages of Natural brooding</p> <ul style="list-style-type: none"> -It cannot be used on large scale -Chicks are eaten by wild animals like kites, eagles and cats since they just move with the mother <p>Advantages of Artificial brooding</p> <ul style="list-style-type: none"> -Many chicks are kept at ago -Chicks are protected from predators -It can be used for commercial purpose | P5 | KEEPING OF POULTRY & BEES | 1 |

| | | | | |
|---|--|----|---------------------------------|---|
| | <p>-It is easier to feed chicks from one place</p> <p>Disadvantages of Artificial brooding</p> <p>-It is expensive to buy feeds for chicks</p> <p>-The chicks need constant and special person to take care of them</p> <p>-It needs constant supply of warmth which can be expensive</p> <p>Types of brooders</p> <p>-Kerosene /paraffin brooder</p> <p>-Charcoal brooder</p> <p>-Infrared lamp brooder</p> <p>Reasons for feeding chicken</p> <p>-To enable them produce good meat</p> <p>-To make them grow fast and healthy</p> <p>-To enable them lay good number of eggs</p> <p>Classes of a balance diet in poultry feeds</p> <p>Carbohydrates</p> <p>This gives energy to the body of the bird</p> <p>Proteins</p> <p>This promotes growth and fattening and it's got from soya beans, insects, ground nut etc.</p> <p>Fats</p> <p>It gives more energy and heat to the birds</p> <p>It's got from ground nuts, peas etc.</p> <p>Mineral salts</p> <p>Calcium and phosphorous, it helps in making of hard eggs</p> | | | |
| 2 | <p>State any one example of pouched mammals.</p> <p>Kangaroo</p> <p>Wallabies</p> <p>Koala bears</p> <p>Related content</p> <p>Pouched / marsupials mammals</p> <p>These are mammals which have a pouched pocket on their abdomen</p> <p>Note: The word marsupials means a pouch / bag</p> | P6 | CLASSIFICATION OF LIVING THINGS | 1 |

| | | | | |
|---|---|----|-----------------|---|
| | <p>Flying mammals Bats are the only flying mammals Note: The common characteristic of all flying mammals is that they fold attachment to the fore limbs which act as wings Types of bats -Fruit eating bats -Insect eating bats -Blood sucking bats (vampire bats) -Bats are nocturnal animals which are dormant during day time and active at night -Echoes are used by bats to find their way out Note: Nocturnal animals are animals which are only active at night and dormant during day time while diurnal animals are animals which are active during day time and dormant at night Sea mammals (Cetaceans) Cetaceans are animals which live in seas Characteristics of sea animals -They don't have gills but breathe through lungs -They give birth to live young ones -They breast feed their young ones -They have a large area of fats under the skin called blubber which keeps them war</p> | | | |
| 3 | <p>Convert 25°C to Fahrenheit. Solution process Formula = $^{\circ}\text{F} = (\text{C} \times \frac{9}{5}) + 32$ What we have C = 25° F = ? Let's substitute in as below following the formula</p> | P5 | MATTER & ENERGY | 2 |

$$^{\circ}\text{F} = (\text{C}^{\circ} \times \frac{9}{5}) + 32^{\circ}$$

$$^{\circ}\text{F} = (25 \times \frac{9}{5}) + 32^{\circ}$$

$$^{\circ}\text{F} = (\cancel{25}^5 \times \frac{9}{\cancel{5}_1}) + 32^{\circ}$$

$$^{\circ}\text{F} = (5 \times 9) + 32^{\circ}$$

$$^{\circ}\text{F} = 45 + 32$$

$$^{\circ}\text{F} = 77^{\circ}$$

Related content

Let's prove by converting 77°F to °C as below

Use the formula below

$$\text{C}^{\circ} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$$

What we have

$$\text{F} = 77^{\circ}$$

$$\text{C} = ?$$

Let's substitute as below using the formula

$$\text{C}^{\circ} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$$

$$\text{C}^{\circ} = (77^{\circ} - 32) \times \frac{5}{9}$$

Arrange vertically to subtract as below

$$77^{\circ}$$

$$- 32$$

$$\hline 45^{\circ}$$

$$\text{C}^{\circ} = (45) \times \frac{5}{9}$$

$$\text{C} = (\cancel{45}^5 \times \frac{5}{\cancel{9}_1})$$

$$\text{C}^{\circ} = (5 \times 5)$$

$$\text{C}^{\circ} = 25^{\circ}\text{C}$$

Therefore 77°F will equal to 25°C

Therefore our answer is correct because it has gone back to our original question

| | | | | |
|---|--|----|-----------|---|
| | <p>Burning</p> <p>Burning is a chemical reaction in which heat and light are produced</p> <p>Note: The gas which is needed for burning to take place is oxygen</p> <p>The gas which is needed for stopping / putting off burning is carbon dioxide and for this reason, it is used in fire extinguishers to put off fire</p> <p>Methods used to put off fire</p> <ul style="list-style-type: none"> -Using fire extinguishers - Using dust and sand -Using water (but the one caused by petrol) -Rolling oneself on the ground <p>Reasons why water is not recommended to put off electric and petrol fire</p> <ul style="list-style-type: none"> -Petrol is less dense than water so it floats on water and fire continues burning -Water is good conductor of electricity so one can get serve shock | | | |
| 4 | <p>What is the main function of the large intestines is the digestive system of man?</p> <p>To absorb water</p> <p>Related content</p> <p>Functions of different parts of the digestive system</p> <p>(a) The Duodenum</p> <p>It's first section of small intestines</p> <p>It receives bile and pancreatic juice through the pancreatic duct</p> <p>(b) Ileum</p> <p>It's where digestion of food ends</p> <p>It's where absorption of food takes place</p> <p>Note: The large intestine absorbs water and mineral salts from the remaining indigestible</p> <p>(c) The stomach</p> <p>Its where we find itch (acid) and it's use is to kill the germs that escape along with the food that we eat</p> | P5 | DIGESTION | 3 |

| | | | | |
|---|---|--|------|---|
| | <p>It's where digestion of proteins begins from being acted up on by the gastric juice enzymes</p> <p>(d) Rectum</p> <p>It keeps the undigested waste materials before they are passed out</p> <p>Disorder of digestion</p> <ul style="list-style-type: none"> -Constipation -Indigestion -Vomiting <p>Causes of constipation</p> <ul style="list-style-type: none"> -Lack of roughages in the diet -Drinking little water -Lack of physical exercise <p>How to prevent constipation</p> <ul style="list-style-type: none"> -Eat fruits and vegetables -Drink water before and after eating food <p>Causes of indigestion</p> <ul style="list-style-type: none"> -Stomach ache -Heart burns -Tiredness / fatigue <p>Diseases of the digestive system</p> <ul style="list-style-type: none"> -Appendicitis -Cholera -Typhoid -Dysentery <p>Note: Please help learners to know how to identify the diseases of digestive system and the disorder of digestion since majority tend to misunderstand what to answer where</p> | | | |
| 5 | <p>Give any one reason why clay soil has the highest water retention capacity?</p> <ul style="list-style-type: none"> -Clay soil particles are very small and tightly packed , which allows it retain water well -Clay soil has small air spaces in between | | SOIL | 2 |

-Clay soil has fine particles that reduce air spaces

Related content

-Soil PH is the degree of acidity or alkalinity of soil

-Soil structure is the arrangement of particles in the soil

Characteristics of clay soil

-It has the smallest particles

-It is sticky

-It has little humus

-It drains water slowly

Note: Clay soil is the best soil for pottery work / modeling

Characteristics of sand soil

-It has the biggest particles

-It has rough particles

-It drains water quickly

Note: It is the best soil for building

Characteristics of Loam soil

-It's a mixture of sand and clay soil

-It has a lot of humus

-It is dark in colour

Note: Loam soil is the best for crop farming because it is well aerated

Weathering is the process by which rocks break down into small particles to form soil

Soil profile

Is the vertical arrangement of soil layers from the top to the bottom

Agents of weathering

-Animals

-Earth quakes

-Plants

-Flowing water

-Strong wind

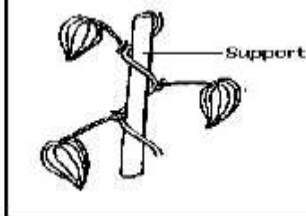
6

Name the method of climbing by plants shown below

P4

PLANT LIFE

1



Twining

Related content

Stems

These are parts of the flowering plant on which leaves and fruits are born

Functions of stems to plants

- They support the structure of the shoot i.e. branches, flowers etc.
- They conduct food from leaves to other parts of a plant
- Green stems help in the process of photosynthesis
- Some stems store food for the plant

Example of stems which keep food for the plants

- Sugar cane
- Yams
- Finger plant
- Irish potatoes

Uses of stems to man

- Many stems are used as food
- Some stems are used as local medicine
- Some stems are used to make poles
- Some stems are source of timber

Kinds / types of stems

- Upright stems
- Underground stems
- Climbing stems
- Creeping stems

Reasons why plants climb others

- Plants climb others to get sunlight

- Plants climb others for support
- To expose their fruits for seed dispersal
- To get enough air

Ways how plants climb others

- By use of tendrils
- By thinning eg some yams some beans
- By use of hooks and thorns
- By clasping

Creeping stems

These are stems which run along the ground

Examples of plants with creeping plants

- Water melons
- Pumpkins
- Sweet potatoes
- Straw berry
- Morning glory

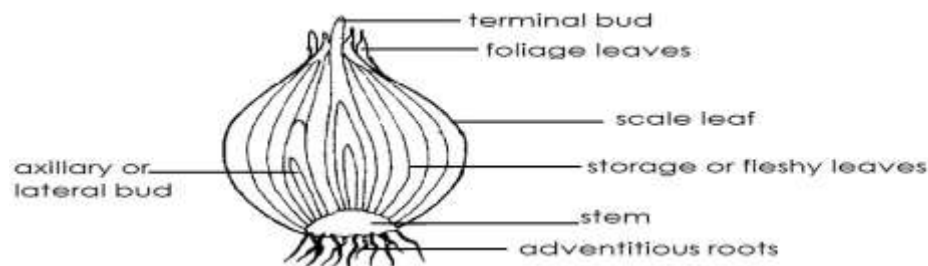
Bulbs

A bulb is an underground stem

Examples of bulbs

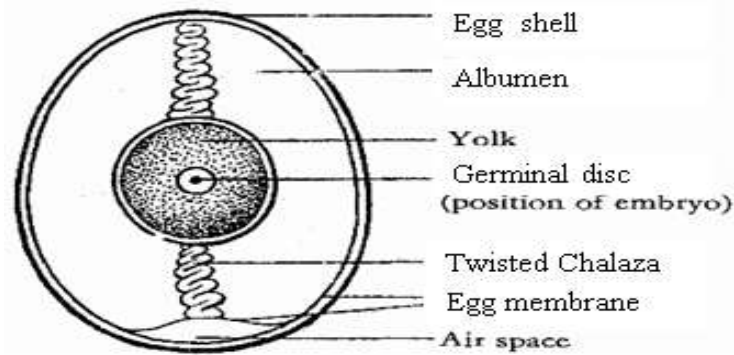
- Onions
- Garlic
- Leak
- Shallots

Structure of a bulb



| | | | | |
|---|---|----|-------------|---|
| 7 | <p>Give the meaning of a seed bed.</p> <p>A seed bed is a large piece of land where seedlings are planted for further growth</p> <p>Related content</p> <p>Hardening off</p> <p>Is the making of seeds get used to harsh climatic conditions</p> <p>How is hardening off done</p> <ul style="list-style-type: none"> -Reduced water -Removing thatched roof/ shelter <p>Note: Hardening off help to expose seedlings to sunlight to make their own food</p> <p>Transplanting</p> <p>Transplanting is the transfer of seedlings from the Nursery bed to the main garden or seed bed</p> <p>Reasons why transplanting is done in the evening</p> <ul style="list-style-type: none"> -The weather is cool in the evening which help seedlings not to lose then they are able to absorb which prevents wilting -Evening transplanting help plants to have long hours of the night which helps roots to absorb enough water <p>Note: Summary of the above explanation</p> <p>To prevent wilting of seedlings caused due to excess transpiration</p> <p>Ways of caring for crops</p> <ul style="list-style-type: none"> -Thinning -Mulching -Watering -Gap filling -Pruning -Manuring | P4 | PLANT LIFE | 1 |
| 8 | <p>Name the structures which are used on kitchens and factories to let the smoke out.</p> <p>Chimney</p> <p>Related content</p> | P5 | HEAT ENERGY | 2 |

| | | | | |
|---|---|----|---------------------------------|---|
| | Ventilation Ventilation is the circulation of air / exchange of gases Importance of different structures on a house Ventilators They let out warm air Windows They let in fresh air Doors They let in fresh air Importance of heat transfer by radiation in the environment -Radiation is used while roasting meat, fish and chicken in an oven -It enables us to warm our bodies while using heaters or warmers -Heat from the fire reaches our bodies by radiation Examples of radiation in nature -Heat from the sun reaches us by radiation -Heat from fire reaches the maize being roasted by radiation Importance of heat transfer by conduction -Conduction of heat enables us to iron our clothes -It helps us to cook using saucepans -It is used in smelting of metals -It is used in cutting and welding of metals | | | |
| 9 | State the reason why the egg shell is porous. To allow gaseous exchange Related content How the egg shell is adopted to it's function of gaseous exchange It is porous Reasons why layers should be given mash (feeds) rich in calcium To lay hard shelled eggs Functions of different parts of an egg | P6 | CLASSIFICATION OF LIVING THINGS | 1 |



Egg shell

It protects the inner parts of an egg

Air space

-It keeps oxygen for the embryo

-It supplies oxygen to the embryo

Egg yolk

It provides proteins to the embryo

Albumen (egg white)

It provides water and proteins to the embryo

Embryo

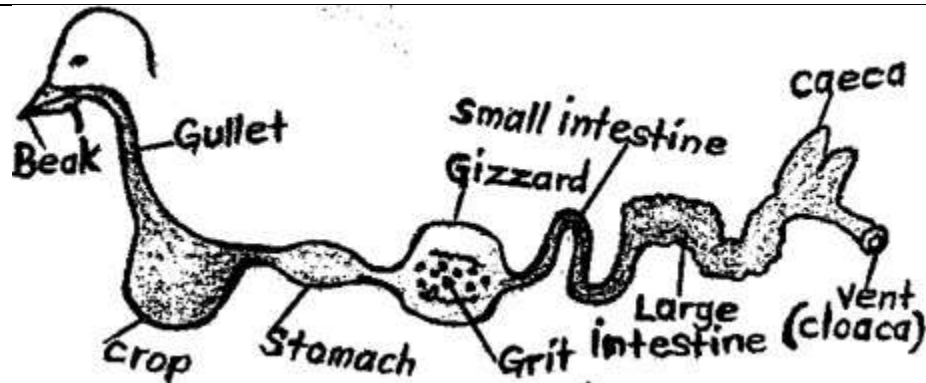
It develops into a young bird

Germinal disc

It develops in to an embryo after fertilization

Note: An embryo is found into a fertilized egg while germinal disk is found in unfertilized egg

The digestive system of a bird



Beak

- It picks food
- It passes food to the crop

Crop

- It stores food for a short time (it is used for temporary storage)
- It moistens and softens food
- It produces crop milk to feed chicks eg in pigeons

Note: Things which happen to food while in the crop of a bird

- Food is moistened
- Food is softened

Examples of birds that do not have a crop

- Owl
- Geese
- Button quail

Gizzard

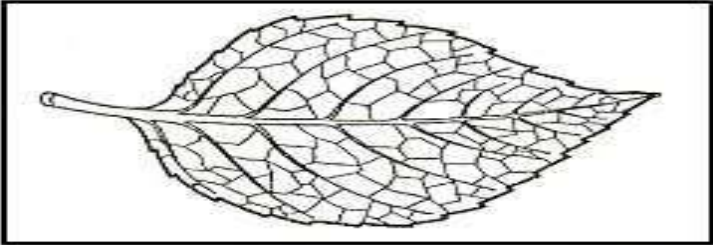
It crushes or grinds food

How is a gizzard adopted to its function

It has grit/stones which helps in crushing of food

Note: Which parts of the digestive system of a human being does the same function as the gizzard in a bird

- Teeth

| | | | | |
|----|---|----|------------|---|
| | <p>Reason for the above answer (teeth) is that both are used in crushing food</p> <p>Grit</p> <p>They crush food into small particles. So they are small stones found in the gizzard</p> <p>How is the gizzard able to withstand the grit?</p> <p>-It has thick muscular walls</p> <p>Small intestines / ileum</p> <p>-It is where digestion of food ends</p> <p>-It is where food absorption takes place</p> <p>Main process that takes place in the small intestines</p> <p>-Food absorption</p> <p>-Food digestion</p> | | | |
| 10 | <p>Identify the type of leaf venation below.</p>  <p>Network leaf venation</p> <p>Related content</p> <p>Leaf venation</p> <p>This is the arrangement of vein in the leaf</p> <p>Types of leaf venation</p> <p>-Network venation</p> <p>-Parallel venation</p> <p>Network venation</p> <p>This is the type of leaf venation where a leaf makes a net like structure</p> | P4 | PLANT LIFE | 1 |

Note: Network venation is mostly characterized by dicotyledonous plants

Examples of plants with network leaf venation

- Bean plants
- Soya
- Black jack plant
- Pease
- Mango plants
- Ground nuts

Parallel leaf venation

This is the type of leaf venation where the veins run from the leaf stalk to the apex of the leaf parallel to another



Note: The veins in this type of venation do not meet and hence the name parallel venation

Parallel leaf venation is characterized mostly in monocotyledonous plants

Examples of plants with parallel leaf venation

- Maize plants
- Sugar cane
- Banana plants
- Sorghum

Types of leaves

- Compound leaves
- Simple leaves

Simple leaves

These are leaves with one leaf blade on the leaf stalk

Characteristics of simple leaves

- They have one leaflet on the stalk

| | | | | |
|----|--|----|---|---|
| | <ul style="list-style-type: none"> -They have one leaf magine -They have one leaf stalk | | | |
| 11 | <p>Mention any one characteristics of testudines</p> <ul style="list-style-type: none"> -They have hard shells -They protect the animal from predators -They have four limbs -They have very long life span -Tortoises can live between 150 – 300years -Turtles live for about 20 – 40years <p>Related content</p> <p>Examples of testudines</p> <ul style="list-style-type: none"> -Tortoise -Turtle -Terrapin <p>Note: Terrapin are turtles that live in fresh and salty water</p> <p>Testudines</p> <p>These are reptiles which have hard bony shells</p> <p>How do tortoise and terrapin protect them selves</p> <p>By hiding in the shell</p> <p>What do we call the upper and lower shells of turtles and turtoises</p> <p>Upper shell is called – Carapace</p> <p>Lower shell is called – Plastron</p> <p>Food for tortoises and turtles (testudes)</p> <ul style="list-style-type: none"> -Insects -Small animals -Vegetation <p>Mouting</p> <p>This is the shedding off the outer skins in reptiles</p> <p>Reasons why reptiles moult</p> <p>To grow / increase in size</p> <p>How do snakes hear / detect movement / vibration</p> <p>Snakes hear vibration with the help of inner ear inside their jaw bones</p> | P6 | CLASSIFICA TION OF LIVING THINGS | 1 |

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|----|--|----|------|---|
| | <p>Reasons why snakes move while bringing out their forked tongue</p> <ul style="list-style-type: none"> -For smelling <p>Food for snakes</p> <ul style="list-style-type: none"> -Small insects -Eggs <p>Groups / classes of snakes</p> <ul style="list-style-type: none"> -Venom snakes -Non-venom snakes -Constrictors <p>Venom snakes</p> <p>These are snakes which have venom</p> <p>Examples of venom snakes</p> <ul style="list-style-type: none"> -Cobra -Death adder -Coral snakes -Water moccasins <p>Characteristics of venom snakes</p> <ul style="list-style-type: none"> -They have triangular heads -They have venom -They have a slit –like (elliptical) eye pupil | | | |
| 12 | <p>Give any one cause of soil exhaustion.</p> <ul style="list-style-type: none"> -Mono cropping -Over cultivation -Leaching of mineral salts -Over grazing -Soil erosion -Over use of soil fertilizers <p>Related content</p> <p>Soil exhaustion</p> <p>Soil exhaustion is the loss of soil fertility</p> <p>Leaching</p> | P5 | SOIL | 2 |

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|----|---|----|--------------------|--|
| | <p>Leaching is the washing of mineral salts from the upper layers to the lower layers of the soil</p> <p>Causes of leaching</p> <ul style="list-style-type: none"> -Soil erosion -Deep ploughing -Floods <p>Soil conservation</p> <p>Soil conservation is the maintenance of soil fertility</p> <p>Methods of soil conservation</p> <ul style="list-style-type: none"> -By carrying out crop rotation -By mulching the garden -By growing legumes -By afforestation -By terracing -Through contour ploughing <p>Intercropping</p> <p>This is the practice of growing two or more crops on the same plot at the same time</p> <p>Ways how intercropping is important to soil</p> <p>It prevents soil exhaustion when legumes are planted</p> <p>Alley cropping</p> <p>This is where food crops are grown between rows of trees</p> <p>Bush fallowing</p> <p>This is the practice of leaving the land to grow bushy for some time</p> <p>Importance of bush fallowing</p> <p>It helps the soil to regain its fertility</p> | | | |
| 13 | <p>State any one importance of keeping our bodies clean.</p> <ul style="list-style-type: none"> -To control the spread of germs -To remove dirt from the bodies -To prevent bad body smell -To be smart and healthy -To prevent teeth diseases | P4 | PERSONAL HYGIEN | |

-To prevent skin diseases

Related content

Personal hygiene

Personal hygiene is the general cleanliness of our bodies

Parts of the body that needs proper cleaning

-Fingers / finger nails

-Hair

-Face

-The teeth

-The skin

Things that should be kept clean

-Clothing

-Beddings

-Tooth brush

-Shoes

Ways of keeping our bodies clean

-Bathing regularly

-Washing clothes regularly

-Ironing clothes and beddings regularly

-Shaving over grown hair

-Brushing the shoes regularly

-Washing hands before eating or touching food

Reasons why we wash our hands

-To remove germs and dirt

-To prevent diseases

When do we wash our hands

-Before preparing food

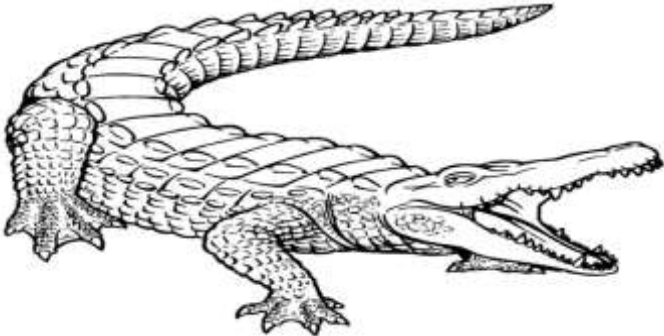
-Before serving food

-After visiting the latrine

Items used to keep our bodies clean

-Soap

-Water

| | | | | |
|----|--|----|---------------------------------|---|
| | <ul style="list-style-type: none"> -Sponge -Comb -Towel -Tooth paste | | | |
| | <p>The diagram below is of a reptile. Use it to answer questions 14 and 15.</p>  | P6 | CLASSIFICATION OF LIVING THINGS | 1 |
| 14 | <p>Mention the reason why the above animal sometimes gape / open its mouth widely?</p> <ul style="list-style-type: none"> -To cool down body temperature -To cool themselves | | CLASSIFICATION OF LIVING THINGS | 1 |
| 15 | <p>How is the sun's heat important to the above female reptiles?</p> <p>Sun's heat provide s the right temperature for eggs to hatch.</p> <p>Related content</p> <p>Examples of crocodilians</p> <ul style="list-style-type: none"> -Alligator -Gavial -Crocodile <p>Characteristics of crocodiles and alligators</p> <ul style="list-style-type: none"> -They have strong tails for swimming, attacking their enemies -They have strong pointed teeth for tearing their prey -They have streamlined bodies for reducing friction in water -They reproduce by laying eggs <p>How are crocodiles adapted to their life in water</p> <ul style="list-style-type: none"> -They have strong tails for swimming | | CLASSIFICATION OF LIVING THINGS | 1 |

| | | | | |
|----|--|----|------------------------------------|---|
| | <p>-They have streamlined bodies to overcome viscosity in water</p> <p>-Their bodies allow eyes and nostrils to be outside water</p> <p>Importance of reptiles to man</p> <p>-Some reptiles attract tourists eg crocodiles</p> <p>-Some reptiles eat insect pests eg chameleon</p> <p>-Some reptiles have skins which can be sold for income</p> <p>-They provide skins for leather industries</p> <p>-Some reptiles are source of food to man</p> <p>Note the following terms</p> <p>Oviparous animals These are animals which lay eggs</p> <p>Viviparous animals These are animals which produce living young ones</p> <p>Viviparous These are animals that give birth to live young ones from the eggs that hatch inside their bodies</p> <p>Terrestrial animals These are animals which mainly live on land</p> <p>Aquatic animals These are animals which live mainly in water</p> | | | |
| 16 | <p>Give the importance of an ovipositor to a queen bee.</p> <p>To lay eggs</p> <p>Related content</p> <p>Apiculture Apiculture is the keeping and management of bees An apiary is a farm of bees OR is a place where many bee hives are kept An apiarist is a person who keeps bees</p> <p>Reasons why people keep bees</p> <p>-Bees pollinate crops for easy fertilization</p> <p>-Bees provide honey to man</p> <p>-Honey from bees can be sold to get money</p> <p>-Honey is used to sweeten bread and tea</p> | P5 | KEEPING OF POULTRY & BEES | 1 |

- Bees provide man with bee wax
- Honey is a source of carbohydrates to man

Types of bees in a hive

- The queen bee
- The drone bee
- The worker bee

a) The queen bee

- It lays eggs
- It mate with a drone once in a life time

Characteristics of a queen bee

- It has long abdomen
- It is the largest bee in the hive
- It has a sting

Note: The queen feeds on royal jelly by the nurse bee

b) Worker bee

These are sterile female bees in a hive

Note: Sterile bees are unable to produce or lay eggs

Characteristics of worker bees

- They are many in number
- They cannot lay eggs and do not have the ovipositor
- They have stings used for defence
- They have a pollen basket on their hind legs for carrying pollen grains
- They are sterile bees because their reproduction organs are under developed

Duties of a worker bee

- They fan the hive to keep it cool
- They feed the brood (grub)
- They feed the queen bee on royal jelly
- They build the hive using the wax
- They collect the nectar, water, and pollen grains

c) Drone bee

The major function of the drone bee is to mate with the queen bee

| | | | | |
|----|--|----|------------------------------|---|
| | <p>Note: Reasons why the drone bee dies after mating with the queen bee Ejaculation kill the drone because it basically eviscerates their abdomen The wedding / mating / maiden fight This is a fight during which the drone bee mates with the queen bee</p> | | | |
| 17 | <p>State the importance of the septum of the human heart. To prevent mixing of de-oxygenated and oxygenated blood Related content Reasons why blood goes to the lungs -To pick oxygen -To be oxygenated -To drop carbon dioxide Functions of other parts of the heart Pulmonary vein It carries oxygenated blood to all the body parts Aorta It carries oxygenated blood from the heart Valves They prevent the back flow of blood Semilunar valves They prevent the back flow of blood from the arteries into the ventricles Reasons why the left ventricle is thicker walled than the right ventricle -It pumps blood at a higher pressure than the right ventricle Heart beat This is the contraction and relaxation of the heart Pulse Is the number of times the heart beats per minute</p> | P6 | THE CIRCULATORY SYSTEM | 1 |
| 18 | <p>Give any one reason why the burnt part of the body is always put in cold water. -To reduce the burning pain -To reduce heat from destroying the body cells -To cool down the temperature of the burnt part Related content</p> | P4 | ACCIDENTS | 3 |

An accident is the sudden happening that can cause harm or death to the body

A casualty is a person who has been injured in an accident

Causes of traffic road accidents

- Over loading
- Unskilled drivers
- Careless driving
- Bad weather driving
- Failure to follow road signs

Reasons why we give first aid

- To stop bleeding
- To reduce pain
- To save life

Poisoning

This is the act of taking harmful or toxic substance in the body

Poison

Poison is any substance that can cause harm when taken into the body

Examples of poisonous substances / poison

- Jik
- Paraffin
- Herbicides
- Petrol
- Expired drugs
- Acid
- Insecticides

Causes of poisoning at home and schools

- Keeping drugs where children can reach
- Ignorance
- Poor storage of drugs
- Keeping poison in soda bottles
- Taking over dose
- Eating expired tinned food

| | | | | |
|----|--|----|--------------|---|
| | <ul style="list-style-type: none"> -Mixing insecticides before children <p>Ways of preventing poisoning</p> <ul style="list-style-type: none"> -Keep drugs out of reach of children -Dispose expired drugs -Avoid drug misuse -Clearing bushes that hide snakes -Avoid eating expired packed food -Buy drugs from recommended pharmacies | | | |
| 19 | <p>Give any one way how the human body acquire artificial immunity.</p> <ul style="list-style-type: none"> -By immunization -Through injection of prepared antibodies into the body <p>Related content</p> <p>Immunity</p> <p>This is the ability of the body to resist diseases</p> <p>Types of immunity</p> <ul style="list-style-type: none"> -Natural immunity -Artificial immunity <p>Natural immunity</p> <p>Is the type of immunity that does not involve use of vaccines</p> <p>Ways of acquiring natural immunity</p> <ul style="list-style-type: none"> -Through breast feeding -After recovering from sickness <p>Reasons why it is dangerous to acquire immunity after recovering from illness</p> <p>It may lead death</p> <p>Artificial immunity</p> <p>This is the type of immunity that involves use of vaccines</p> <p>Vaccines</p> <p>These are medical drugs used for immunization</p> <p>Importance of vaccines</p> <p>They boost immunity</p> <p>How do vaccines boost immunity</p> | P5 | IMMUNISATION | 3 |

| | | | | |
|----|--|----|------|---|
| | <p>-Vaccines stimulates the production of antibodies</p> <p>-They enable the body to produce antibodies</p> <p>Methods of administering vaccines</p> <p>-Oral method</p> <p>-Injection method</p> <p>Types of vaccines</p> <p>-Killed vaccines</p> <p>-Live attenuated vaccines</p> <p>-Toxoid vaccines</p> <p>Live attenuated vaccines</p> <p>These are vaccines made from weakened live germs</p> <p>Examples of attenuated vaccines</p> <p>-Yellow fever vaccine</p> <p>-Rotavirus vaccine</p> <p>-Measles vaccine</p> <p>-Oral polio vaccine</p> <p>-BCG vaccine</p> <p>-Chicken pox vaccine</p> | | | |
| 20 | <p>How does deforestation cause soil erosion?</p> <p>It leaves the soil bare exposing it to agents of soil erosion</p> <p>Related content</p> <p>Reasons why people carry out deforestation</p> <p>-To get land for settlement</p> <p>-To get land for farming</p> <p>-For road construction</p> <p>-For industrialization</p> <p>-Due to charcoal burning</p> <p>How does our stalking and grazing cause soil erosion</p> <p>-Animals eat all the grass leaving the soil bare</p> <p>-Animals carry soil in their hooves</p> <p>Effects of deforestation</p> <p>-It causes soil erosion</p> | P5 | SOIL | 2 |

- It leads to drought
 - It causes global warming
 - It destroys habitats for wild animals
- Note:** Global warming is the constant rise in temperature world wide

Ways or methods of controlling soil erosion

- Bush fallowing
- Cover cropping
- Strip cropping
- Agro forestry
- Bundling
- Mulching
- Terracing
- Reforestation
- Contour ploughing

Note: Bundling is the making of embankment on river banks to control soil erosion

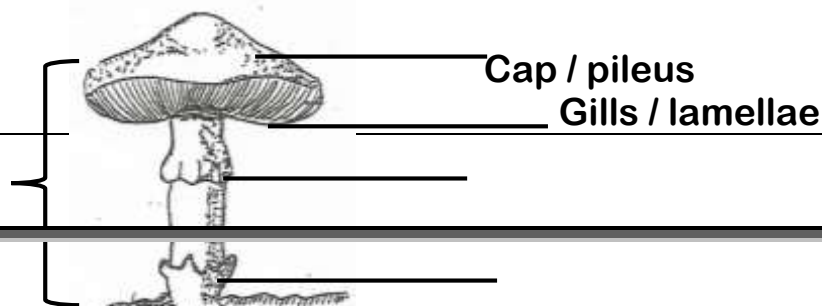
How do trees control soil erosion

- Trees reduce the speed of wind
- Trees act as wind breakers

How does terracing control soil erosion

- Terraces reduce the speed of flowing water

- 21 State one reason why a mushroom is not called a plant.
- It has no chlorophyll while a plants has chlorophyll
 - Mushrooms feed on dead decaying matter while plants make their own food
- Related content**
- Parts of a mushroom and their functions**



P6

BACTERIA
& FUNGI

2

Fruiting body

Ring / annulus

Volva /cup

Mycelium { ————— hyphae

Note: The parts of a mushroom visible above the ground is called fruiting body

The parts of a mushroom below the ground is called mycelium

Functions of its parts

Cap / pileus

It protects the gills

Gills

They produce and store spore

Stalk / stipe

It holds the cap and the gills

Ring

It protects the mushroom when it's still young

Hyphae

They absorb food (Nutrients) from dead matter

How does yeast reproduce

Yeast reproduce by budding

The enzymes found in yeast is called zymase

Yeast spreads up the fermentation of alcohol

Conditions necessary for the growth of fungi

-Moisture

-Warmth

22

State the meaning of seed viability.

Seed viability is the ability of seeds to germinate when all conditions are present

Related content

P4

PLANT LIFE

1

Conditions needed for germination to take place

- Water
- Oxygen
- Warmth

How important / helpful are the conditions which must be present for germination to take place

Water

- It softens the testa / seed coat
- It dissolves the food for the embryo to use

Oxygen

Help the embryo to carry out respiration

Warmth

To encourage growth of anew cells
Gives the enzymes necessary conditions needed to digest food for the embryo

Methods of planting

- Row planting
- Broad casting

Row planting

This is the planting of seeds /seedlings in line

Examples of seeds /seedlings planted using row planting

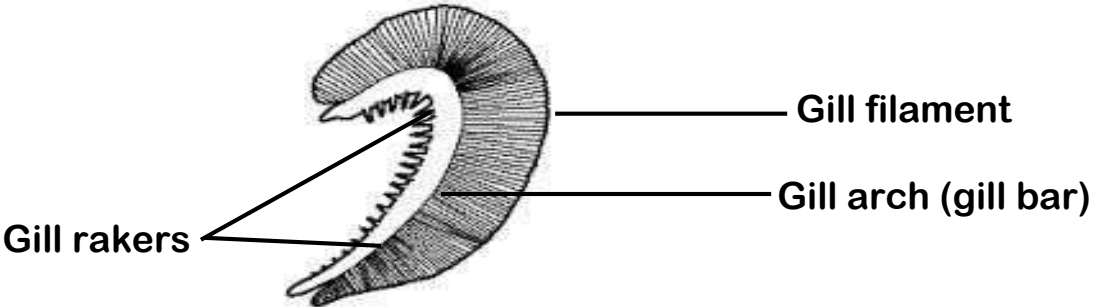
- Beans
- Ground nuts
- Maize
- Cotton
- Soya beans

Advantages of row planting

- Few seeds are used
- It is easy to weed the crops
- Spacing in line help to control pests

Disadvantages of row planting

- It is tiresome / takes a lot of time

| | | | | |
|----|---|----|---------------------------------|---|
| | <p>-It wastes land -It acquires a lot of skills</p> | | | |
| 23 | <p>Give the reason why a fish dies when removed from water. It lacks dissolved oxygen Related content Reasons why the gill filaments are many in number / numerous To increase the surface area Uses of gill filament For gaseous exchange Adaptation of gill filaments to gaseous exchange -They are numerous / many in number -They are moist -They have dense network of blood capillaries The structure of a gill of a fish</p>  <p>Gill arch (gill bar) It supports the gill filaments and gill filaments Gill rakers -To trap solid materials from damaging the gills -To filter food from water as it moves from mouth to the gills How are fish with no swim bladders (cartilaginous fish) able to float on water They use their fins to float on water</p> | P6 | CLASSIFICATION OF LIVING THINGS | 1 |

| | | | | |
|----|--|----|--------------|---|
| | <p>Examples of cartilaginous fish</p> <ul style="list-style-type: none"> -Shark -Ray / sting ray -Dog fish -Skates <p>Why lung fish is called so?</p> <p>It has gills and lungs</p> <p>Examples of lung fish</p> <ul style="list-style-type: none"> -African lung fish / mud fish -South American lung fish -Australian lung fish <p>Reasons why lung fish take long to die when removed from water</p> <ul style="list-style-type: none"> -It can breathe through using a swim bladder -It's swim bladder is modified into lungs for breathing <p>Reasons why lung fish produce mucus that dries into cocoon around it's body</p> <p>To survive drought</p> | | | |
| 24 | <p>Give one reason why DPT vaccine is given to babies at 6 weeks.</p> <p>Babies are born with maternal immunity that lasts for six weeks</p> <p>Related content</p> <p>Reasons why Tuberculosis (TB) common among AIDS patients</p> <p>They have weak immunity / due to loss of immunity</p> <p>How is smoking related to TB (tuberculosis)</p> <p>Smoking worsens tuberculosis</p> <p>Common signs in both TB and AIDs patients</p> <ul style="list-style-type: none"> -Chronic cough -Loss of weight -Severe sweating <p>Tetanus</p> <p>It is caused by a bacteria found in soil</p> <p>The bacteria enters our bodies through fresh cuts and wounds</p> <p>Signs and symptoms of tetanus</p> | P5 | IMMUNISATION | 3 |

| | | | | |
|----|--|----|--------------|---|
| | <ul style="list-style-type: none"> -Stiffness of muscles -Stiffness of the jaw -The baby stops breast feeding | | | |
| 25 | <p>Mention any one condition of proper storage.</p> <ul style="list-style-type: none"> -The grain should be stored when they are dry -Rat guards should be fixed on granary -Stores should have good ventilation -Foot crops should be dried first before storing them -The roofs of the stores should not leak <p>Related content</p> <p>Farm records</p> <p>These are written information showing the different inputs and outputs on a farm</p> <p>Examples of records kept by crop farmers</p> <ul style="list-style-type: none"> -Planting records -Harvesting records -Sales records -Pests and disease control records <p>Uses of farm records / importance of farm records</p> <ul style="list-style-type: none"> -Records help farmers to know whether they are making losses or profits on a farm -Records help farmers to budget for the farm -Records help farmers to secure loans -Records help farmers to avoid repeating mistakes <p>Changes in weather</p> <p>Types of weather</p> <ul style="list-style-type: none"> -Rainy weather -Windy weather -Cloudy weather -Sunny weather <p>Elements of weather</p> <ul style="list-style-type: none"> -Rain | P4 | CROP GROWING | 2 |

| | | | | |
|----|---|----|-------------------|---|
| | <ul style="list-style-type: none"> -Cloud cover -Sunshine -Temperature -Humidity -Air pressure | | | |
| 26 | <p>Identify any one advantage of strip grazing.</p> <ul style="list-style-type: none"> -Pasture is evenly used -Diseases and pests are easily controlled -Labor is reduced on farms <p>Related content Strip grazing This is where small sections called strips are created using temporary electric wire to restrict the movement of animals</p> <p>Disadvantages of strip grazing</p> <ul style="list-style-type: none"> -It's expensive to maintain -Few animals are kept <p>Tethering method (use of ropes) Is the system where animals are tied on the peg with the rope and allowed to graze in the restricted area</p> <p>Advantages of tethering method (use of ropes)</p> <ul style="list-style-type: none"> -It is cheap and appropriate to small scale farmers -No fencing is required <p>Disadvantages of tethering method (use of ropes)</p> <ul style="list-style-type: none"> -Animals lack exercise -Animals may be restricted to one type of grass -Few animals can be kept <p>Free range system This is the system in which animals are left to move and graze freely</p> <p>Note: It's the commonest system in Uganda because its cheap</p> <p>Advantages of free range system</p> <ul style="list-style-type: none"> -It's the cheapest method of feeding animals -Animals get enough exercise | P6 | CATTLE KEEPING | 2 |

| | | | | |
|----|---|----|------------------|---|
| | <p>-Animals feed on variety of pasture</p> <p>Disadvantages of free range system</p> <p>-It is difficult to manage animals</p> <p>-It requires a lot of land</p> <p>-Animals may stray and eat people's crops</p> | | | |
| 27 | <p>Calculate the volume of a stone of mass 48g and density 6g/cc</p> <p>Solution process</p> <p>So density = $\frac{\text{mass}}{\text{Volume}}$</p> <p>Whereas;</p> <p>Density (d) = 6g/cc</p> <p>Mass (m) = 48g</p> <p>Volume (v) = ?</p> <p>Let's substitute in as below using the formula $D = \frac{M}{V}$</p> <p>D = 6g/cc</p> <p>M = 48g</p> <p>V = ?</p> <p>$6 = \frac{48}{V}$</p> <p>$\frac{6}{1} = \frac{48}{V}$</p> <p>We are to divide by the side which has the unknown after cross multiplying as below</p> <p>$\frac{6}{1} = \frac{48}{V}$</p> <p>$1(48) = (6V)$</p> <p>$\frac{48}{6} = \frac{6V}{6}$</p> <p>V = 8cc</p> <p>Related content</p> | P5 | MEASURE MENTS | 2 |

Densities of some substances

| Substances | densities |
|------------|-----------|
| Gold | 19.3 |
| Mercury | 13.6 |
| Lead | 11.3 |
| Silver | 10.5 |
| Copper | 3.9 |
| Aluminum | 2.7 |
| Glass | 2.7 |

Reasons why Aluminum is used to make bodies of aero planes

Aluminum has low density

Behavior of objects when put in water

-Floating

-Sinking

Floating

This is when objects remain on top of water

Note: Objects remain on top of water because they are less dense than water

Liquids that float on water

-Kerosene

-Petrol

-Diesel

-Lubricating oil

-Cooking oil

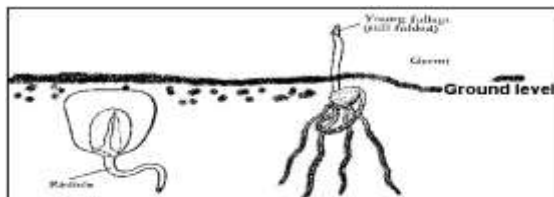
Other objects which float on water

| | | | | |
|----|--|----|---|---|
| | <ul style="list-style-type: none"> -Cork -Plastic cups and plates -Boats -Ice -Sponge -Papers <p>Sinking objects These are objects that go to the bottom of water These objects are more dense than water Examples of sinking objects</p> <ul style="list-style-type: none"> -Stones -Sand -Glass -Mercury -Metal rods | | | |
| 28 | <p>State any one way how silting affects water bodies</p> <ul style="list-style-type: none"> -Reduces the depth of water bodies -It leads to disappearance of water bodies -It leads to flooding of surrounding areas -Destroys habitats for aquatic life <p>Related content Ways of controlling silting</p> <ul style="list-style-type: none"> -Controlling soil erosion -Avoid cultivating near river banks -Protect vegetation cover around water bodies <p>Silting Silting is the deposition of fine and other solid materials like soil particles into the water body</p> <p>Water pollutant / water impurities Water impurities are substances which when added to water can change its natural quality</p> <p>Note: Water in the reservoir poses potential energy</p> | P6 | RESOURCE S IN THE ENVIRONM ENT | 2 |

| | | | | |
|----|---|-----|--------------------------------------|---|
| | Flowing water poses kinetic energy | | | |
| 29 | <p>State any one reason why rusting is regarded as chemical change.</p> <ul style="list-style-type: none"> -It is irreversible -It is forms a new permanent substance <p>Related content</p> <p>Rusting</p> <p>Rusting is a chemical process that causes a red or orange coating to form on the surface of metals</p> <p>Conditions needed / necessary for rusting</p> <ul style="list-style-type: none"> -Oxygen -Moisture (water) <p>How important is moisture in iron rusting</p> <p>It speeds up oxidation of iron</p> <p>How important is rusting</p> <p>It adds iron in the soil</p> <p>Disadvantages of rusting</p> <ul style="list-style-type: none"> -It makes metals weak -It spoils the colour of metals -It makes sharp metals blunt -It makes bolts and nuts hard to drive <p>Ways of preventing rusting and corrosion</p> <ul style="list-style-type: none"> -By keeping metals in cool and dry places -By making alloys -By painting some metals <p>Examples of metals that can rust</p> <ul style="list-style-type: none"> -Iron -Steel <p>Examples of metals which do not rust</p> <ul style="list-style-type: none"> -Copper -Aluminum -Silver -Brass | P.5 | TYPES OF CHANGES IN THE ENVIRONM ENT | 2 |

| | | | | |
|----|--|----|------------|---|
| | -Bronze | | | |
| 30 | <p>Name any one example of seeds which undergoes hypogeal germination.</p> <ul style="list-style-type: none"> -Maize seeds -Sorghum seeds -Millet seeds -Wheat seeds -Rice seeds -Oats seeds <p>Related content</p> <p>Germination is the growing of a seed into a young plant</p> <p>Note: A young plant is called a seedling</p> <p>Types of germination</p> <ul style="list-style-type: none"> -Epigeal germination -Hypogeal germination <p>Epigeal germination</p> <p>This is the type of germination when a germinating seed carries it's cotyledon above the ground</p> <p>All seeds which undergo Epigeal germination are dicotyledonous seeds as shown below in their</p> <p>Examples</p> <ul style="list-style-type: none"> -Beans -Soya beans -Coffee seeds -Orange seeds -Water melon seeds <p>Hypogeal germination</p> <p>This is the type of germination where the germinating seed leaves the cotyledons under the ground</p> <p>Differences in structural appearance between the Epigeal and hypogeal germination</p> <p>A B</p> | P4 | PLANT LIFE | 1 |

Hypogeal



Epigeal



Note the following

a) Epigeal

Under this type of germination all the food is kept in the cotyledons. And so they are as well dicotyledonous since they have two cotyledon

b) Hypogeal

Under this type of germination the seed store their food in the endosperm. And as well they have only one cotyledon

31

Identify any one method of storing sound.

- Mechanical methods
- Magnetic methods
- Electromagnetic methods

Related content

Echo location

This is the ability of an organism to locate objects using echo

Examples of animals which use echo location

- Bats
- Whales
- Dolphins
- Propoises

How is an echo formed

By obstruction of sound waves / when sound waves hit the hard surface

Importance of echoes / advantages

P6

**SOUND
ENERGY**

1

| | | | | |
|----|---|----|------|---|
| | <ul style="list-style-type: none"> -They help bats and whales to dodge obstacles -They help doctors to detect heart beats -They help sailors to detect the depth of water bodies -They help pilots o dodge tall buildings and mountains -They help blind people to dodge obstacles by using sonar sticks <p>Disadvantages of echoes</p> <ul style="list-style-type: none"> -They turn music into noise in empty rooms -They prevent people from communicating clearly <p>How echoes can be reduced in cinema halls, recording studios, conference halls and theater halls</p> <ul style="list-style-type: none"> -By covering the walls with soft boards -By covering the walls with sponge and thick blankets <p>Sound reflectors</p> <p>These are materials that bounce /send back sound waves</p> <p>Characteristics of sound reflectors</p> <ul style="list-style-type: none"> -They are hard -They are impermeable <p>Examples of sound reflectors</p> <ul style="list-style-type: none"> -Mountains -Hills -Cliffs -Rocks | | | |
| 32 | <p>Give one reason why water logging is dangerous to plant roots and organisms in the soil.</p> <p>It leads to lack of oxygen for respiration</p> <p>Related content</p> <p>Reasons why clay soil is poorly aerated and dried</p> <p>It has very small spaces between its particles</p> <p>Reasons why clay soil is used for making ceramics and bricks</p> <p>It is sticky when wet</p> <p>Reasons why some plants cannot grow in water logged areas</p> <p>Due to lack of fresh air around their roots</p> | P5 | SOIL | 2 |

| | | | | |
|----|---|----|--|---|
| | <p>Examples of crops that grow well in swamps</p> <ul style="list-style-type: none"> -Rice -Yams -Sweet potatoes -Sugar canes -Cabbage <p>How can clay soil be improved</p> <p>By adding humus and lime</p> <p>Reasons why loam soil is well drained</p> <p>It has large pore spaces / has spaced particles</p> <p>Soil capillarity</p> <p>This is the upward movement of water between small spaces in the soil</p> | | | |
| 33 | <p>State the importance of alcohol in the six's thermometer.</p> <p>It is used to measure the lowest temperature of the day</p> <p>Related content</p> <p>Reasons why alcohol is used in the six's thermometer</p> <p>It has a very low freezing point</p> <p>Reasons why people drink alcohol</p> <ul style="list-style-type: none"> -To pass time -To quench thirsty -To fit in the peer groups of alcoholics -To show that they are tough -To be brave <p>Alcoholism</p> <p>Alcoholism is a condition where a person totally depends on alcohol</p> <p>Factors that lead to alcoholism</p> <ul style="list-style-type: none"> -Peer pressure -Frustration -Family back ground -Seduction advertisement -Social environment | P6 | ALHOCOL, SMOKING & DRUGS I THE SOCIETY | 1 |

| | | | | |
|----|---|-----|----------|---|
| | <p>Body organs affected by alcohol</p> <ul style="list-style-type: none"> -Brain -Liver -Stomach -Pancreas -Kidney -Heart <p>Effects of alcoholism to an individual</p> <ul style="list-style-type: none"> -It leads to brain damage -It leads to loss of appetite for food -Loss of jobs -It leads to liver cirrhosis (liver damage) <p>How does alcohol damage the liver</p> <p>It causes liver cirrhosis</p> <p>How does alcohol worsens stomach ulcers</p> <p>It leads to loss of appetite for food</p> <p>Effects of alcohol to a family</p> <ul style="list-style-type: none"> -It leads to family neglect -It leads to poverty -It leads to sex deviation -It leads to domestic violence -It leads to broken marriages | | | |
| 34 | <p>Name the deficiency disease which is caused by lack of proteins in the body.</p> <p>Kwashiorkor</p> <p>Related content</p> <p>Deficiency diseases are diseases caused by lack of certain class of food in one's diet</p> <p>Signs and symptoms of kwashiorkor</p> <ul style="list-style-type: none"> -Swollen moon face -Brown hair -Swollen hands and feet | P.4 | OUR FOOD | 2 |

- The child gets anemia
- The child get diarrhea
- Prevention and control of kwashiorkor**
- Feed the child with food rich in proteins
- Take the child to hospital

Below is a table showing deficiency diseases and what causes them

| Diseases | Caused by |
|-----------------|------------------------|
| Scurvy | lack of vitamin C |
| Marasmus | lack of carbohydrates |
| Rickets | lack of vitamin D |
| Night blindness | lack of vitamin iodine |
| Goitre | lack of vitamin B1 |

35 By what process does carbon dioxide enter the stomata of the leaf?

By diffusion

Related content

Photosynthesis is the process by which plants make their own food/glucose/starch

Raw materials needed for photosynthesis to take place

-Water

-Sunlight

Conditions necessary for photosynthesis to take place

-Water

-Carbon dioxide

Products of photosynthesis

-Glucose / starch (useful products)

-Oxygen (it is a waste product during the process of photosynthesis)

Requirements for photosynthesis

-Water, chlorophyll

-Sunlight

P6

CLASSIFICATION
OF PLANTS

2

| | | | | |
|----|--|----|--------------------------|---|
| | <p>Importance of each requirement for photosynthesis</p> <p>a) Water: it provides the hydrogen needed to form glucose Note: This water is got from soil</p> <p>b) Carbon dioxide: It provides carbon needed to form glucose Note: This carbon dioxide is got from the atmosphere</p> <p>c) Chlorophyll: It traps sunlight Note: This is the green pigment in the leaf</p> <p>d) Sunlight: It helps to split water into hydrogen and oxygen Reasons why photosynthesis can't take place at night There is no sunlight</p> <p>Importance of glucose produced during photosynthesis</p> <ul style="list-style-type: none"> -It is used for respiration to produce energy -It is used to make insoluble starch -It is used to make cellulose which build cell walls <p>Adaptations of leaves for photosynthesis</p> <ul style="list-style-type: none"> -They are broad and flat to trap sunlight easily -They have thin walls to allow easy diffusion of carbon dioxide -They have chlorophyll to trap sunlight -They have leaf veins to transport water to all leaf cells -They are properly arranged on their stems for easy exposure to sunlight <p>Factors that affect photosynthesis</p> <ul style="list-style-type: none"> -Light intensity -Carbon dioxide concentration -Optimum temperature <p>How do animals benefit from photosynthesis</p> <ul style="list-style-type: none"> -Animals get oxygen for respiration -Some animals get food eg herbivores etc <p>How do plants benefit from photosynthesis Plants get food</p> | | | |
| 36 | <p>State the reason why avocado is not regarded as a drupe yet it has one seed. Avocado has fleshy endocarp yet drupes have dry endocarp</p> | P6 | CLASSIFICATION OF PLANTS | 2 |

Related content

Reasons why avocado is called a single seeded berry

Avocado has a fleshy endocarp

Pomes

These are fruits formed from the swollen receptacles

Note: It's inner core is the pericarp

Examples of pomes

-Apples

-Pears

Reasons why an apple is called an accessory fruit (false fruit)

It develops from the receptacle other than the ovary

Dry fruit

These are fruits with a dry pericarp

Groups of dry pericarp

-Dehiscent fruit

-Indehiscent fruit

Dry dehiscent fruit

These are dry fruits which split to disperse the seeds

Examples of dry dehiscent fruits

-Beans

-Cassia

-Desmodium (tick)

-Pease

-Tobacco

-Castor oil

-Sodom apple

Dry indehiscent fruits

-Sunflower

-Tridax

-Maize

-Bidens pilosa (black jack)

-Cashew nuts

| | | | | |
|----|---|-----|---------------------------|---|
| 37 | <p>Mention any one group of people that promote (PHC) Primary Health Care.</p> <ul style="list-style-type: none"> -Self-help group -Religious groups -Youth groups -Social welfare -Cooperative groups -Village health communities <p>Related content</p> <p>Activities done by a community to promote PHC</p> <ul style="list-style-type: none"> -Constructing public latrines -Repairing damaged roads -Organizing community health days -Distributing public garbage containers -Announcing any outbreak of diseases in the community -Protecting water sources <p>Activities done by family to promote PHC</p> <ul style="list-style-type: none"> -Construction of latrines at home to promote proper disposal of human wastes -Digging rubbish pits at home for proper disposal of rubbish -Boiling water for drinking to prevent diarrheal diseases -Setting up a plate rack at home to prevent washed utensils from getting contaminated -Taking children for immunization <p>Note: How does digging a rubbish pit, constructing of latrines, distributing garbage containers in the community promote PHC. I refer you to the above activities done by a family in promotion of PHC.</p> <p>Health life style that promote good health</p> <ul style="list-style-type: none"> -Feeding on a balances -Doing regular body exercise -Ironing clothes to kill germs and parasites -Washing clothes to remove germs | P.5 | PRIMARY HEALTH CARE | 2 |
|----|---|-----|---------------------------|---|

| | | | | |
|----|---|----|--|---|
| | <p>-Reading books in enough light</p> <p>Importance of getting enough rest and sleep</p> <p>-It breaks fatigue</p> <p>-It refreshes the brain</p> <p>Importance of good sitting posture</p> <p>-It prevents deformation of bones</p> <p>-It prevents back and chest pain</p> <p>-It prevents dislocation</p> <p>-It help in proper working of body organs</p> <p>Importance of performing physical exercise</p> <p>-It reduces body weight</p> <p>-It makes the joints flexible</p> <p>-It makes the heart muscle grow stronger</p> <p>-It prevents heart attack</p> | | | |
| 38 | <p>State any one reason why free range system is not used in urban areas.</p> <p>-There is inadequate land</p> <p>-It needs a big piece of land</p> <p>Related content</p> <p>Advantages of free range system</p> <p>-It is cheap</p> <p>-It saves time</p> <p>-Birds get balanced diet</p> <p>-Birds need little care</p> <p>-It controls poultry vices</p> <p>Reasons why free range system is regarded as the cheapest system of poultry keeping</p> <p>-The farmer doesn't buy poultry feeds</p> <p>Disadvantages of free range system</p> <p>-It needs a big piece of land</p> <p>-Birds can easily be stolen</p> <p>-Birds can easily be killed by predators / wild animals</p> <p>-Birds can easily be poisoned</p> | P5 | Keeping poultry and bees under poultry keeping | 1 |

| | | | | |
|----|---|----|--|---|
| | <ul style="list-style-type: none"> -Eggs can easily get lost -It is difficult to cull birds <p>Note: Vermins These are wild animals that attack and harm domestic animals</p> | | | |
| 39 | <p>Mention any one function of a crop to the digestive system of a bird.</p> <ul style="list-style-type: none"> -It stores food for a short period of time -It moistens and softens food -It produces crops <p>Related content Reasons why birds moult their feathers To grow new feathers Moulting This is the shedding of old feathers in the birds Reasons why birds are streamlined To overcome viscosity (to reduce air resistance) Importance of down feathers They insulate the bird's body</p> | P6 | Classificati on of living things | 1 |
| 40 | <p>What scientific term is used to mean the removal of horn buds from the head of a young animal?</p> <ul style="list-style-type: none"> -Debudding -Dehorning <p>Related content Instruments used in debudding /dehorning -Spoon dehorner -Dehorning iron Advantages of dehorning -It increases space in the kraal -It makes animals easy to handle -It prevents animals from destroying the structure -It prevents animals from injuring people and other animals Disadvantages of dehorning -It is painful to the animal</p> | P6 | KEEPING CATTLE | 2 |

- The animal may lose a lot of blood and die
- The wound may become septic
- It requires a skilled person who might be expensive to afford

Reasons why farmers deworm their animals

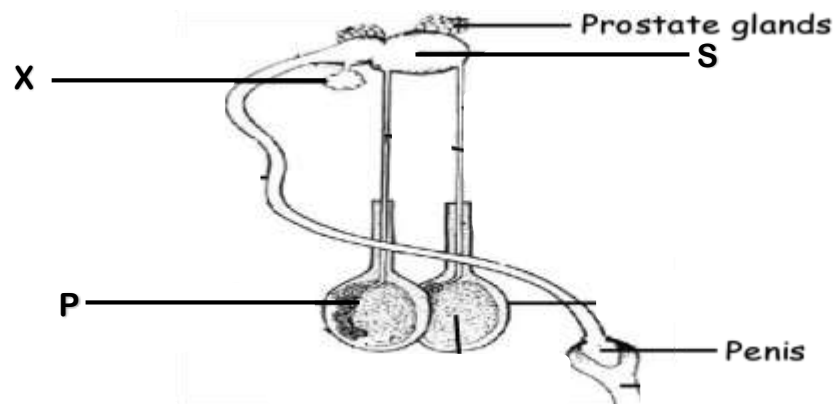
- To kill endo parasites

Examples of endo parasites

- Tape worm
- Hook worm
- Liver fluke
- Thread worm

SECTION B (40 MARKS)

- 41 The diagram below shows a reproductive system of a bull. Study it carefully and answer the questions about it



a) Name the parts marked

X **seminal vesicle**

P **epididymis**

b) Give any one reason why part marked P is coiled.

- To provide enough time for sperms to mature
- To delay release of sperms

P6

KEEPING CATTLE

2

c) How is the penis adapted to its function?

-It has an erectile tissue for erection

-It has a sheath which protect its head (glass)

-It has urethra to pass out sperms

Related content

Reasons why the scrotum always hanging between legs

-To keep the testes at a slightly lower temperature than the rest of the body

How the scrotum regulate temperature around the testes on the following days

a) Cold days

It contracts for testes to move upward and get warmth from the body

b) Hot days

It relaxes for the testes to move away from the body to cool temperature

Functions of different parts of the reproductive system of a bull

Penis

It deposits sperms into the vagina

Sheath

It protects the glans (head of the penis)

Epididymis

It allows sperms time to mature

Urethra

It passes out sperms from the penis

Scrotum

-It protects the testes from harm

-It regulates temperature of the testes

Sperm duct

It carries sperms to the urethra

Cowper's gland

It produces a fluid that neutralizes acids in the urethra

Fertilization in s cow

This is the union of male and female gametes to from to form a zygote

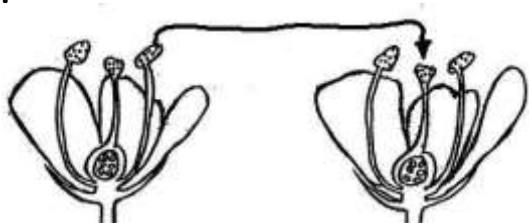
Gametes

-These are reproductive cells

| | | | | |
|----|--|----|---|---|
| | <ul style="list-style-type: none"> -The female gamete is called ovum -The male gamete is called sperm | | | |
| 42 | <p>(a) State one importance of screening blood.</p> <ul style="list-style-type: none"> -It helps to discover the germs in the blood -It helps to discover blood germs -It promotes safe blood transfusion <p>(b) Write any two ways of increasing blood volume in the body.</p> <ul style="list-style-type: none"> -Feeling on food rich in iron -Taking iron tablets -Through blood transfusion -Drinking a lot of juice <p>(c) How are blood groups formed?</p> <p>According to the antigens in the red blood cells</p> <p>Related content</p> <p>General functions of blood</p> <p>(A) Transports functions</p> <ul style="list-style-type: none"> -It transports digested food in the body -It transports oxygen in the body -It transports hormones in the body -It transports metabolic wastes to excretory organs <p>(B) Protective functions</p> <ul style="list-style-type: none"> -It protects the body against diseases -It prevents bleeding by clotting on the cuts and wounds <p>(C) Regulative functions</p> <ul style="list-style-type: none"> -It distributes heat in the body <p>What health problem is likely to get due to inadequate platelets in the body?</p> <ul style="list-style-type: none"> -Excessive bleeding in case of a cut -Poor blood clotting <p>The constituents of blood plasma / components</p> <ul style="list-style-type: none"> -Water -Hormones -Antibodies | P6 | Circulatory system under general functions of blood | 1 |

| | | | | |
|----|--|----|---|---|
| | <ul style="list-style-type: none"> -Digested food (amino acids, mineral salts) -Urea -Carbon dioxide | | | |
| 43 | <p>(a) What first aid would you give to a person who has been bitten by a snake? (give one)</p> <ul style="list-style-type: none"> -Tie the bandage slightly above the bitten part to prevent the flowing of venom to the heart -Apply the black stone to absorb venom from the injured part -Keep the victim calm and at rest to prevent venom from spreading into the whole body <p>(b) Write down any two signs of a venomous snake bite.</p> <ul style="list-style-type: none"> -Two puncture wounds -Bleeding from the injured part -Swelling of the injured part -Excessive sweating <p>(c) In one way, state how fangs are adopted to its function of injecting venom into the prey.</p> <ul style="list-style-type: none"> -They are hollow <p>Related content</p> <p>Importance of venom to venomous snakes</p> <ul style="list-style-type: none"> -It help to kill the prey <p>Dangers of snake venom to human life</p> <ul style="list-style-type: none"> -It poisons blood leading to death -It clots blood -It destroys nerve cells -It leads to internal bleeding by breaking cells and tissues -It paralyzes the heart <p>Medical importance of snake venom</p> <p>It is used to make antivenin / anti venom serum</p> <p>Reasons why it is advisable to identify the colour, marking and shape of a snake in case of a snake bite</p> <p>To give the right anti venom</p> | P6 | Classificat ion of living things under groups or classes of snakes | 1 |

44 The diagram below show a type of pollination. Study it carefully and answer the question about it



(a) Identify the type of pollination shown below.

Cross pollination

(b) Write the general name given to a group of petals.

Corolla

(c) Write any two examples of plants which carry out the above named type of pollination.

-Maize plant

-Coco plant

-Paw paw plant

-Cow pea plant

-Passion fruit plant

Related content

A table showing the difference between wind and insect pollinated flowers

| Insect pollinated | wind pollinated |
|-------------------------------|--------------------------------|
| Have brightly coloured petals | Have dull coloured petals |
| Have large petals | Have small petals |
| Produce scent | Produce no scent |
| Produce nectar | Produce no nectar |
| Produce few pollen grains | Produce a lot of pollen grains |
| Have sticky stigma | Have lighter stigma |
| Have heavier pollen grains | Have lighter pollen grains |

P4


**Plant life
under
types of
pollination**

2

| | | | | |
|----|--|----|---|---|
| 45 | <p>(a) State any one reason why subsoil tend to be rich in mineral salts. Due to leaching</p> <p>(b) Identify any two factors that influence weathering</p> <ul style="list-style-type: none"> -Earth quake -Action of plant roots -Frost action -Action of heat -Mining -Road construction <p>(c) Suggest one reason why some plants are not able to grow crops in water logged areas. Due to lack of fresh air around their roots</p> <p>Related content Weathering: This is the breakdown of rocks into smaller particles to form soil</p> <p>Types of weathering</p> <ul style="list-style-type: none"> -Chemical weathering -Biological weathering -Physical weathering <p>How does temperature cause weathering When temperatures are high, rocks expand and when temperatures are low, rocks contract and hence breaking</p> <p>Reasons why loam soil is regarded as the best soil for crop growing.</p> <ul style="list-style-type: none"> -It has a lot of humus -It is moderately drained -It has a good water holding capacity -It is moderately aerated -It has moderate soil texture | P5 | Our environment under components of the environment particularly soil | 2 |
| 46 | <p>(a) What causes convection currents? Different densities of molecules</p> <p>(b) State any two importance of convection in the environment.</p> <ul style="list-style-type: none"> -It enables air circulation in a house -It helps in boiling of water | P5 | Matter and energy under methods of heat transfer | 2 |

| | | | | |
|----|---|----|--|---|
| | <p>-It enables charcoal stoves to continue burning</p> <p>-It enables hot water supply in a home</p> <p>-It drives out smoke through the chimney</p> <p>-Convection currents take away smoke from cigarettes</p> <p>(c) State any one reason why doors and windows are put below the ventilators on a house.</p> <p>To allow in fresh air easily</p> <p>Related content</p> <p>Ways of managing heat in our daily life</p> <p>-Wearing white clothes on hot days</p> <p>-Using umbrellas on sunny days</p> <p>-Putting houses with white colours</p> <p>-Putting some objects with white colours</p> <p>Importance of ventilators on a house</p> <p>To let out stale air</p> <p>Reasons why stale air go up</p> <p>It is less dense than fresh air</p> <p>Differences between stale and fresh air</p> <p>-Fresh air is denser than stale air</p> <p>-Fresh air is cool while stale air is warm</p> <p>What happens if wood is burnt in plenty of oxygen?</p> <p>It turns into ash</p> | | | |
| 47 | <p>(a) How can pitch of wind musical instrument be decreased?</p> <p>By increasing the vibrating space</p> <p>(b) Which factor enables sound to travel in different media (state of matter).</p> <p>Molecules</p> <p>(c) Mention any two factors which affect the speed of sound.</p> <p>-Temperature</p> <p>-Wind</p> <p>-Altitude</p> <p>-Humidity</p> <p>-Heat</p> | P6 | Sound energy under transmission of sound | 1 |

| | | | | |
|----|--|----|--------------------|---|
| | <p>Related content</p> <p>Percussion instruments: Are musical instruments that produce sound by vibration of their surface when hit</p> <p>Examples of percussion instruments</p> <ul style="list-style-type: none"> -Marimba -Xylophone/ balafon -Vibraphones -Drums -Long drums <p>String musical instruments</p> <p>These are instruments that produce sound by vibration of their strings when plucked or bowed</p> <p>Examples of string musical instruments</p> <ul style="list-style-type: none"> -Cello -Violin -Bow harp -Guitar <p>Wind musical instruments: These are instruments which produce sound by vibration of air blown in them</p> <p>Examples of wind musical instruments</p> <ul style="list-style-type: none"> -Whistle -Trumpet -Panpipes -Flute -Saxophone -Bugle | | | |
| 48 | <p>(a) How do bacteria locomote / move?</p> <p>By using flagella</p> <p>(b) Give any two conditions needed by bacteria to reproduce.</p> <ul style="list-style-type: none"> -Food -Moisture (water) -Warmth | P5 | Bacteria and fungi | 2 |

| | | | | |
|----|---|----|-----------------------|----------|
| | <p>-Oxygen (c) In one way, suggest how bacteria are able to survive harsh environmental and chemical conditions. By forming endospores Related content Single celled organism that reproduce by cell division (Binary fission) -Bacteria -Amoeba -Virus -Paramecium Importance of bacteria (ways in which bacteria are useful) -Some bacteria help to fix nitrogen in the soil eg rhizobia -Some bacteria help in decomposition of organic matter eg putrefying bacteria -Some bacteria help in production of vinegar Reasons why it is bad to pour kerosene and oil in latrine Oil kills bacteria and maggots that would reduce the volume of faeces Examples of processes which need bacteria to take place -Decomposition -Fermentation of milk (production of cheese, butter and yoghurt) -Production of vinegar -Biogas production (anaerobic fermentation)</p> | | | |
| 49 | <p>The diagram below shows an equipment found on livestock farms. Study it and answer the questions that follows.</p>  <p>(a) Identify the farm instrument drawn above. Burdizzo (b) How important is the above named instrument to a cattle farm? It is used in closed castration of live stock</p> | P6 | KEEPING CATTLE | 2 |

| | | | | |
|----|---|-----|---------------------|---|
| | <p>(c) In one way, state how the above named tool adopted to its functions. It has a blunt pincers</p> <p>(d) Mention any one advantage of castration in livestock farming</p> <ul style="list-style-type: none"> -It prevents in breeding -It prevents random mating -It prevents un wanted pregnancies -It prevents bad smell in male animals <p>Related content</p> <p>Calf management practices on a farm</p> <ul style="list-style-type: none"> -Dehorning -Hoof trimming -Castration -Spraying -Dipping -Dusting -Numbering / identification <p>Branding</p> <p>This means putting marks on the body of animals using hot iron</p> <p>Different ways of branding animals</p> <ul style="list-style-type: none"> -Ear notching -Ear tagging -Using a number lace -Ear tattooing -Tail bobbing <p>Castration: This is the removal or inactivation of testicles of a male animal</p> <p>Methods of castration</p> <ul style="list-style-type: none"> -Open castration -Closed castration -Loop castration | | | |
| 50 | <p>(a) Define drug prescription. This is the information written by a medical worker on how to use a drug</p> <p>(b) State any two factors considered when prescribing drugs.</p> | P.6 | ALCOHOL ,SMOKING | 1 |

AND
DRUGS IN
THE
SOCIETY

- Age and patient
- Weight of the patient
- Kind of previous drug
- Duration of sickness
- Type of sickness

(c) What does the statement below represent medically? (2 x 3)

- Means taking 2 tablets every after 8hours
- Means taking 2tablets three times a day

Related content

Advantages of drug prescription

- It prevents wrong dose
- It prevents drug misuse
- It prevents poisoning

Causes of over dose

- Much fear for the diseases
- Sweetness of some drugs
- Self medication
- Drug misuse
- Keeping drugs in children's reach

Disadvantages of over dose

- It leads to poisoning
- It can lead to death
- It damages body organs

Some information manufactures put on a drug during packaging and before selling it

- Name of the drug
- Diseases cured by a drug
- Expiry date
- Composition of the drug

51 (a) State any one reason why wind mills are not commonly used in Uganda to produce electricity.

Uganda does not have regular windy seasons

| | | | | |
|----|--|----|------------------------------|---|
| | <p>(b) Suggest any one use of wind mills.</p> <ul style="list-style-type: none"> -It is used to draw water from underground tanks -It is used to grind grains and seeds -It is used to generate wind electricity <p>(c) Outline any two dangers of wind mills to people.</p> <ul style="list-style-type: none"> -It is an agent of soil erosion -It spreads air borne diseases -It destroys houses -It breaks trees and crops <p>Related content</p> <p>General uses of minerals</p> <ul style="list-style-type: none"> -They are source of income when sold -They are used as raw materials in industries -They earn foreign exchange for the government <p>Ways of conserving minerals</p> <ul style="list-style-type: none"> -Making alloys -Painting metals to avoid rusting -Recycling scrap metals | | | |
| 52 | <p>(a) List down any two examples of urinary tract infection (UTIs).</p> <ul style="list-style-type: none"> -Genital warts -Genital herpes -Gonorrhea -Candidiasis -Trichomoniasis -Chlamydia <p>(b) Write any two signs of UTIs.</p> <ul style="list-style-type: none"> -Blocked urethra -Pus discharge from penis and vagina -Swelling of genital parts -Bleeding from the genital parts <p>Related content</p> <p>Ways of controlling secondary infections</p> | P6 | RESOURCES IN THE ENVIRONMENT | 2 |

| | | | | |
|----|---|----|-------------------|---|
| | <ul style="list-style-type: none"> -Abstain from sex until marriage -Be faithful to our sexual partners -Use condoms to play sex with un trusted partner -Avoid extra marital sex -Learning more facts about HIV <p>PID in full Pelvic Inflammatory Disease</p> <p>Signs of PID</p> <ul style="list-style-type: none"> -Pain in the lower abdomen -Fever <p>Dangers of PID (effects of uncontrolled STDs in female)</p> <ul style="list-style-type: none"> -Painful menstruation -Sterility (barrenness) -Blocked oviduct -Wounds in the uterus <p>General prevention and control of STDs / STI</p> <ul style="list-style-type: none"> -Keep reproductive organs clean -Keep latrines clean -Abstain from sex until marriage -Be faithful to our sexual partners -Use condoms to play sex with un trusted partner | | | |
| 53 | <p>(a) What term is used to mean the force of attraction between molecules of different kinds?</p> <p>Adhesion</p> <p>(b) State any two properties of gaseous state of matter</p> <ul style="list-style-type: none"> -They do not have definite shape -Molecules in gases are furthest apart -Heat travels in gases by convection -Gaseous state has the smallest density <p>(c) Mention any one example of viscous liquids.</p> | P5 | Matter and energy | 2 |

- Porridge
- Syrup
- Honey

Related content

Sublimation: This is the direct physical change of liquids to gases

Examples of sublimates (substance which can sublime)

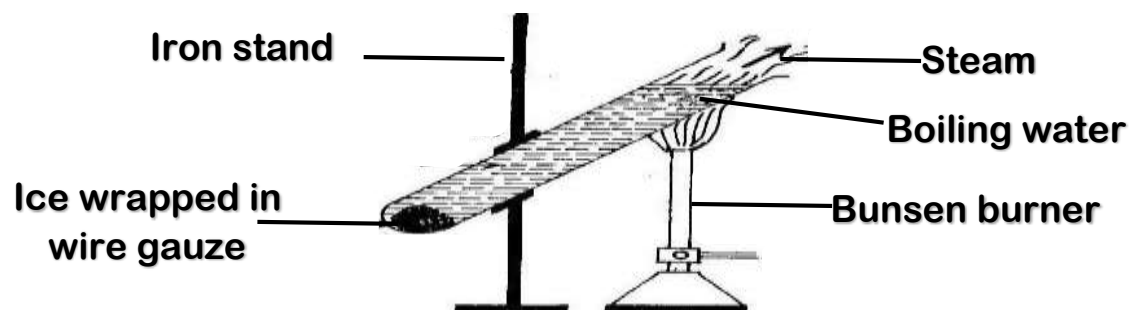
- Iodine
- Naphthalene (mothballs)
- Potassium per manganite
- Dry ice

54 Study the experiment below that confirms water being a poor conductor of heat.

P5

HEAT
ENERGY

2



(a) State the reason why ice cubes didn't melt yet the water at the top was boiling.

Water is poor conductor of heat

(b) Why does hot water remain on top of cold water as shown in the experiment above?

Heated molecules are less dense than cold molecules

(c) Suggest any two applications of conduction of heat in our daily life.

- It helps in ironing clothes
- It enables us to cook food in saucepan
- It helps in iron smelting
- It helps in melting ghee and butter
- It helps us to roast meat on metal rods

| | | | | |
|----|---|-----|---------------------------|---|
| | <p>Related content</p> <p>Reasons why the sea is cool during day time</p> <ul style="list-style-type: none"> -Water reflects some heat -Sun rays go deep in water since it is transparent -Water waves mix the warm water at the surface with cool water below it <p>Reasons why the land warms quickly during day time</p> <ul style="list-style-type: none"> -Land absorbs heat -Heat does not go inside the land <p>How does heat from the sun reach the earth to dry wet clothes</p> <p>By radiation</p> | | | |
| 55 | <p>(a) Define the term health parade.</p> <p>This is an assembly done at school to check on children's hygiene</p> <p>(b) Outline any one example of people who conduct health parades at school.</p> <ul style="list-style-type: none"> -Health prefects -Sanitary prefects -Science teachers -Teachers on duty <p>(c) Mention any one activity carried out on health parade.</p> <ul style="list-style-type: none"> -Checking children with un brushed teeth - Checking children with long finger nails -Checking children with dirty uniforms -Checking children with jiggers <p>(d) State any one reason why health parades are important in school.</p> <ul style="list-style-type: none"> -To promote personal hygiene among school children -To promote good health among school children -To promote child program <p>Related content</p> <p>Child to child program</p> <p>This is the health program where older children help the young ones to promote good health</p> <p>Activities done in child to child program</p> <ul style="list-style-type: none"> -Older children teach young ones how to use latrines | P.5 | PRIMARY HEALTH CARE | 2 |

- Older children teach young ones to wash hands before meals
- Older children take young ones for immunization

PWD in full

People With Disabilities

Types of disabilities

-Physical disabilities

-Sensory disabilities

Physical disabilities

This is when a person's limbs or arms are crippled

Sensory disabilities

This is when a person's sense do not work well

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