P.3 LITERACY I LESSON NOTES TERM II– 2016

ENVIRONMENT

Environment are things / around us. Surroundings is another word to mean environment
Component of the environment
Environment is made up of two components namely:

- Living components
- Non – living components

Living components	Non living components
Plants Animals	Air Water Soil

- Living things

What are living things?

THEME: LIVING THINGS IN OUR SUBCOUNTY

Reading descriptions of words

Breath
Wastes
Respond
Reproduce
Feed
Stimuli
Thorax
Spiracles
Antennae
Tasting
Laying
Feathers
Beaks
Swimming
Gills
Cold blooded
Hooves
Buttons
Manure
Prestige
Dowry
Buffalos
Tourists
Taboos
Giraffes
Wetland
Water logged
Crocodiles
Tortoises
Earthworms
Hides
Aquatic animals
A pond
Protection
Monitor
Shelter
Slugs
Friendship
Wriggling
Gliding
Maggot
Nostril
Ventral fin
Caudal fin
Pectoral fin
Dorsal fin
Corners
Senses
Nile perch
Silver fish
Proteins
Belts
Salting
Refrigerator
Scratching
Warmth
Flightless
Web feet
Penguins
Geese
Swans
Poultry
Pigeons
Sucking
Regarded
Scorpions
Harmful
Spoil
Weevils
Wax
Swarm
Proboscis
Nectar
Dragonflies

THEME: LIVINGTHINGS IN OUR SUBCOUNTY

What are living things?

Livingthings are things which have life.

Examples: cows , goats , oranges , mangoes , beans , birds , insects etc

Groups of living things.

- Plants
- Animals

Characteristics of living things

- They breathe
- They feed
- They move
- They reproduce
- They pass out wastes
- They respond to stimuli
- They grow and change

Non-living things:

These are things which do not have life.

e.g stones, soil, water , timber , etc.

Characteristics of non-living things

- They do not breathe
- They do not feed.
- They do not move
- They do not reproduce
- They do not pass out wastes
- They do not respond stimuli
- They do not grow and change.

Animals

Types of animals in our division

There are two types of animals in our subcounty and these are;

(i) Domestic animals

(ii) Wild animals

Domestic animals:

Are animals which are kept in homes.

Examples;

- Cows
- Dogs
- Goats
- Sheep
- Rabbits
- Donkeys

Reasons why people keep domestic animals.

- To get meat
- To get milk
- To sell and get money
- For transport
- For protection

Animals kept for transport

- Donkey

- Camels
- Horse
- Oxen

Animal	Products	Things we make
Goats Cow	Skins and hides	Belt , drum , shoes , watchstraps , handbags
	Milk	Yoghurt, butter , cheese , ghee
	Hooves and horns	Glue , buttons, bungles , necklaces
	Bones	Animal feeds
Sheep	Wool	Woolen blankets , sweaters , stockings , jackets , scurvies
	Mutton	
Pigs	Pork	Bacon and ham, lard
Rabbits	Fur	Blankets
	meat	

Ways of caring for domestic animals

- By giving them food and water
- By cleaning their houses (shelter)
- By treating them when sick
- By building them shelter.

Wild animals

- Are animals which live in the bush.

Examples:

- Antelopes
- Giraffes
- Elephants
- Buffalos
- Zebras
- Leopards

Uses of wild animals

- They attract tourists
- Some wild animals give us skins eg snakes , leopards , lions .
- Some wild animals gives horns eg antelopes , rhinos , buffalos.
- Elephants give us ivory.

Dangers of wild animals

- Some wild animals can eat people e.g lions , leopards, etc.
- Some wild animals can also eat domestic animals.
- Some wild animals destroy our crops

Habitats

A habit is a home of a livingthing.

Types of habitats

- Animal habitats
- Plant habitat

Animal habitats

An animal habitat is a place where an animal lives.

Examples of animal habitats

- Compound eg. goats , rabbits , geckoes
- Plants eg caterpillars , slugs , butterflies , chameleon
- Forest / bush eg monkey , buffalo, elephants
- Swamps eg mud fish
- Water eg whales, dophin
- Garden eg rats , squirrels etc

Animals in swamps and in water:

- A swamp is a water logged area with some plants in it or
- A swamp is a wetland with vegetation in it.
- A swamp can be called a wetland.

Water animals (Aquatic animals)

Animals that live in water are called aquatic animals.

Examples

- Fish
- Crocodiles
- Hippopotamus
- Frogs
- Slugs
- Crab

A POND

A pond is a small pool of water.
Some ponds are natural and others are manmade.
A pond can be found in homes , schools and hotels.

Examples of animals in a pond

- Fish
- Frogs
- Slugs
- Snails
-

AN AQUARIUM

An aquarium is a glass tank where fish and other water animals are kept in our homes.

Places where an aquarium can be found:

- Hotels
- School compounds,
- homes, etc

Diagram of an aquarium

Animals without legs

- fish
- Snakes
- Slugs
- Earth worm

Animals which lay eggs

- Lizards
- Tortoise
- Chameleon

Animals and their young ones

Animal	Young	Home
Cow	Calf	Byre
Goat	Kid	Shed
Rabbit	Kitten	Hutch
Sheep	Lamb	Pen
Pig	Piglet	Sty
Horse	Foal	Stable
Chicken	Chicks	Coop
Lion	Cab	Den
Fish	Fry	Water / aquarium

Animal movements

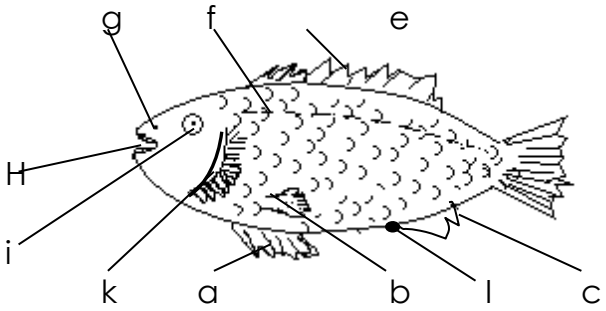
Way f movement	Animals
Crawling	Lizards Chameleon Tortoise
Hopping	Frogs Grasshoppers Locusts Toads
Flying	Butterflies Houseflies Bees
Walking	Cows Dogs Hens Man
Gliding	Snail Slug Snake
Wriggling	Caterpillar Earthworms Maggot

Swimming	Fish Ducks Swans Geese

Why animals move from one place to another

- To get food
- To get water
- To get protection
- To get shelter
- To look for their young ones
- To look for friendship
- To look for new homes

External parts of a fish



a. Pelvic fin
b. Pectoral fin
c. Ventral/anal fin
d. Tail/caudal fin
e. Dorsal fin
f. Lateral line
g. Nostril
h. Mouth
i. Eye
j. Scale
k. Gill cover/operculum
l. Anus

USES OF PARTS OF A FISH

1. The dorsal fin protects the fish from enemies.
2. The eyes are used for seeing.
3. The gill cover protects the gills.
4. He tail fin helps the fish to turn to different directions.
5. The scales protect the body of a fish.
6. The nostrils are for smelling.
7. The mouth is for feeding /getting food.
8. The lateral line detects sound waves.
9. Pectoral and pelvic fins are used for breaking speed and going up or down wards in water.
10. Gills are used for breathing.

NB : Fins help a fish to swim in water

Examples of fish common in Uganda.

- Tilapia (engage)

- Nile perch (empuuta)
- Cat fish
- Silver fish (mukene)
- Lung fish
- Mud fish

Use of fish

- Source of proteins
- Scales are used to make bags and belts.
- Fish helps to control mosquito larvae
- Helps in manufacture of animal feeds
- Some people get jobs e.g fish mongers
- For selling

Methods of catching fish

- fish hawks
- Fishing nets
- Fishing baskets

FISH PRESERVATIONS

Preservation

Preservation is the way of keeping food for a long time without going bad.

Morden methods of preserving fish

- Canning / tinning
- Refrigeration

Local methods

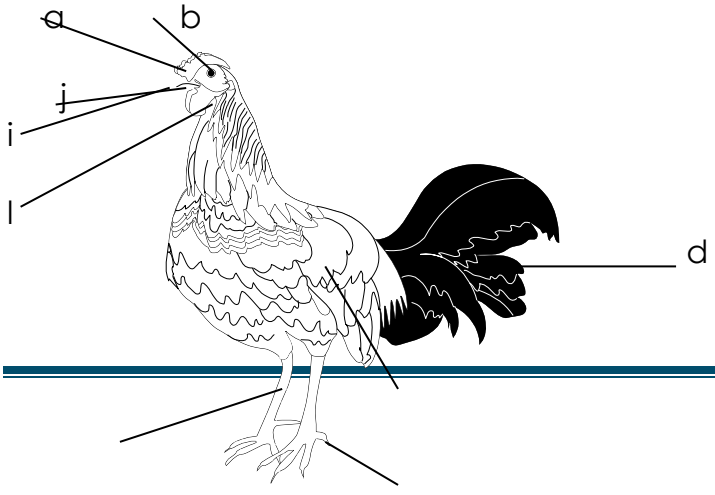
- By smoking
- By salting
- By sun drying

Qn: Why do we preserve fish?

- For future use
- To prevent wastage

SUB THEME BIRDS

The external parts of a bird.



c

g

e

a. Comb/crown
b. Eye
c. Wing
d. Tail feathers
e. Spur
f. Claws/nails
g. Leg
h. Wattle
i. Beak
j. Nostril

Functions of parts of a bird.

Beak - It picks food from the ground (feeding)
- It is used for protection

Wings - used f or flying

Legs - for walking

Claws - for protection

Spur - for fighting/ protection
- seeing
- for flying
- giving birds shape
- cover body of a bird.
- Give birds colour
- Feathers give birds warmth

Characteristics of birds.

- Birds breathe by means of lungs
- Birds are covered with feathers.
- Have beaks
- Have claws
- Reproduce by laying eggs

Note: Swimming birds have webbed feet which help them to swim on water.

Examples of swimming birds

- Ducks
- Geese
- Swans

Types of birds

- Domestic birds
- Wild birds

Domestic birds

- Are birds kept in our homes .
- They are also called poultry.

Examples

- Ducks
- Pigeons
- Peacocks
- Guinea fowls
- Chicken
- Parrots
- Turkeys

Wild birds.

- Are birds found in the bush.

Examples

- Weaverbirds
- Kites
- Crested cranes
- Eagles/crows

Habitats of birds

- A habitat is a home of a living thing.
- Birds live on trees, nests, burrows.

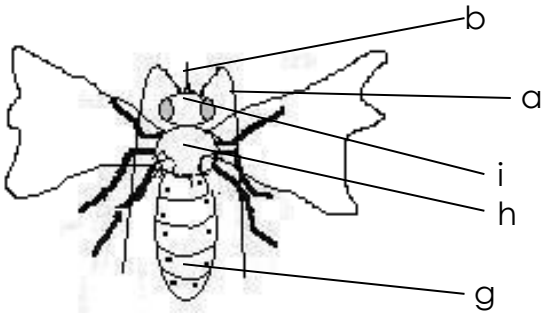
Uses of birds to people;

- Birds provide meat e.g chicken, turkey
- Provide manure
- Provide feathers
- Provide bones used to make animal feeds
- Used f or cultural purposes e.g paying dowry
- Used for tourist attraction

  Caring for birds

  Providing food , water , shelter to birds

Parts of an insect



a. Feelers/antennae
b. Proboscis
c. Eye
d. Wing
e. Leg
f. Spiracles
g. Abdomen
h. Thorax
i. Head

The three main body parts of an insect

1. Head - It is where the eyes, feelers and proboscis are found.
2. Thorax - It s where the legs and wings are attached.
3. Abdomen It is where we find the spiracles.

Functions of parts of an insect

1. Feelers - for feeling
2. Proboscis - used for sucking food and water
3. Wing - for flying
4. Spiracles - for breathing

Characteristics of insects

- Insects have three main body parts
- Have three pairs of legs
- Have jointed legs
- Have feelers for feeling and smelling
- Have segmented bodies

Note: spiders, ticks and mites have two main body parts and eight legs. They are not insects.

Harmful and useful insects

- Some insects are harmful or dangerous to man

Examples:

- Of harmful insects
- Wasps
- Crickets
- Locust
- Mosquitoes
- Termites
- Bees
- Houseflies
- Red ants
- Cockroaches

Useful insects to man

- Bees
- Grasshoppers
- White ants
- Locusts

INSECT HABITATS (HOMES)

Insects that live in the soil

- Termites
- White ants
- Red ants

Insects that live on plants

- Butterflies
- Caterpillars

Social and solitary insects

Social insects are the insects that live , move and work together.

Examples

- Bees
- Red ants
- Termites
- Wasps
- Black ants
- White ants

Anti – social insects (solitary insects)

- Are insects which do not live, move and work together.

Examples

- Houseflies
- Locusts
- Mosquitoes
- Cockroaches
- Dragon flies
- Butterflies
- Moth
- Grass hoppers

NOTE: Moth pollinates flowers at night

Other insects habitats.

- Bees - bee hive
- Spider - web

CARE FOR INSECTS, BIRDS AND ANIMALS

Care for bees

- By providing a hive
- By planting flowers for nectar
- By providing water.

Types of bees.

- Worker bees
- Drone bees
- The queen bees

Note: A group of bees is called a swarm.

Uses of bees to man

- Bees provide honey
- Bees provide bee wax
- Young bees are eaten

Importance of honey

- Honey is used as medicine e.g syrup
- Honey is used to make some foods sweet
- People sell honey and get money
- It is a source of carbohydrates

Products from the wax

- Candles
- Shoe polish
- Some cosmetics
- After shave
- Crayons

Ways of caring f or birds.

- Treating birds
- Keeping bird's records
- Providing food to birds
- Building birds' houses
- Vaccinating birds
- Protecting eggs

Signs of a sick bird

- It is sleepy
- Has dull feathers
- It dos not want to eat food.

Note: Poaching is the hunting of wild animals without permission

- Treating sick animals in the wild life centre
- Providing food to animals.

SUB THEME: PLANTS

Reading description of words.

- Seed
- Develop
- Germination
- Seedling
- Condition
- Necessary
- Moisture
- Temperature
- Warmth
- Epigeal
- Hypogeal
- Cotyledon
- Dicots
- Monocots
- Thatching
- Chlorophyll
- Upright/erect
- Clasping
- Underground
- Flower
- Habitat
- Nursery bed
- Harsh
- Weeding
- Spraying
- Chemicals
- Thinning
- Transplanting
- Mulching
- Fencing
- Rotation
- Photosynthesis
- Legumes

- Cereals
- Firmly
- Reproductive
- Suffocate
- Harbor
- Excess
- Pests
- Pesticides
- Premature
- Pruning
- Transplant
- Manure

Plant

Plants are anything on earth's surface

Examples of plants

- Maize plants
- Bean plant
- Cow pea plant

Reasons why they are called plants

- They make their own food
- They have chlorophyll

GROUPS OF PLANTS

a. Flowering plants
   Are plants which bear flowers e.g maize, beans, grass, tomatoes, peas, etc.
b. Non-flowering plants
   Are plants which do not bear flowers e.g ferns, conifers, mosses, liver worts

Characteristics of plants

They grow , reproduce, feed, breathe, excrete.

Plants habitats

Plant habitat is a place here plants grow or are found

N.B a habitat is a home of a living thing.

Plants in school compounds.

- Pawpaw
- Avocadoes
- Mangoes
- Palms
- Trees, flowers, etc

Plants in swamps

- Papyrus
- Yams
- Rice
- Sugarcanes, etc

Plants in desert/dry areas

- Cactus
- Sisal

Plants which grow water

- Waterhyancith
- Water lily
- Water cabbage

Plants that grow on rocks

- Liverworts
- Ferns
- Mosses

SCHOOLGARDEN

Factors to consider when setting up a school garden

- It should be near a water source
- Should be near the school
- It should be in an open space

Importance of a school garden

- Children learn about crop i.e for study purposes
- Children get food from the grown crops
- The surplus is sold and generates income to the school.
- Children learn how to dig.

NURSERY BED

Nursery bed is a small piece of land where seedlings are raised before taking them to the main garden.

Importance of a nursery bed.

- Protects the seedlings from harsh conditions e.g too much sunshine, strong wind and heavy rains.
- It is easy to care for the seedlings.
- The shelter prevents water from evaporating
- It is easy to select good seedlings.

Examples of crops grown in a nursery bed.-

- Tomatoes
- Cabbage
- Loofah plants
- Passion fruits
- Onion
- Orange
- Egg plants
- Green pepper
- Spinach
- Trees

Caring for crops in a nursery bed.

- Watering/irrigation

- It provides water to plants mainly in dry seasons

Spraying

This is the application of chemicals on seedlings to control pests, diseases and weeds.

WEEDING

This is the removal of unwanted plants from the garden.

A weed is un –wanted plant in the garden.

Examples of common weeds

- Black jack
- Star grass
- Spear grass
- Sodom apple
- Finger millet
- Goat grass
- Wondering jew
- Elephant grass
- Nut grass

Importance of weeds to man

- Some weeds are eaten as food
- Some weeds are used as herbal medicine
- Some weeds are feeds to domestic animals.

Ways of controlling weeds

- By up rooting
- By mulching
- By slashing
- By spraying
- By digging

Dangers of weeds in the gardens

- Weeds hide dangerous pests.
- Weed lead to low crops yields
- Weeds compete with plants for sunlight, water and nutrients.

Thinning

- Is the removal of excess crops from the garden to create space.

Hardening off:

This is the making of seedlings get used to harsh conditions.

Transplanting

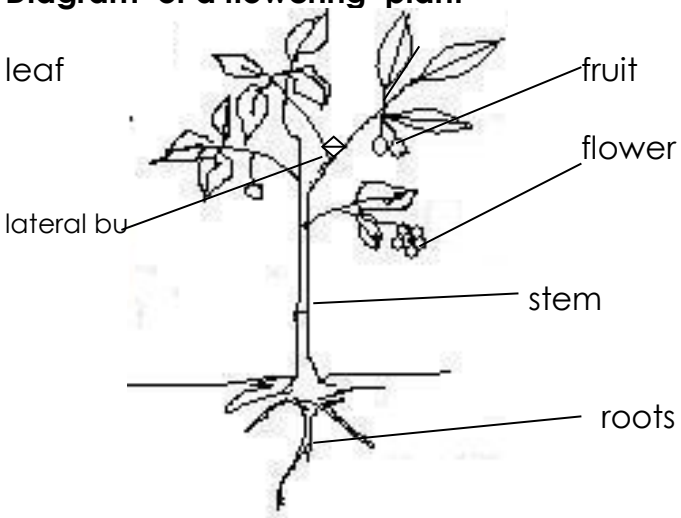
- Is the transfer of seedlings from the nursery bed to the main garden.

Mulching

- Is the covering of top soil with dry plant materials.

Fencing:

Diagram of a flowering plant



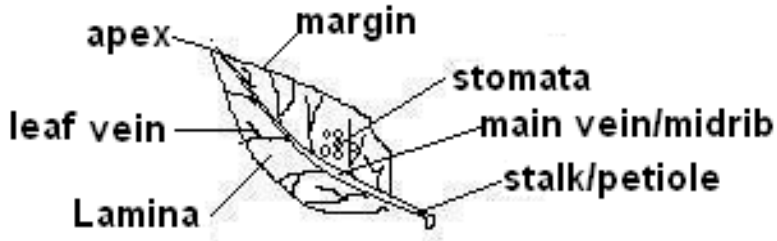
systems of plants

- Shoot system
- Root system

Parts of a flowering plant.

- It has 3 major namely leaves, stem , roots

LEAF



(leaf blade)

Uses of leaves to plants

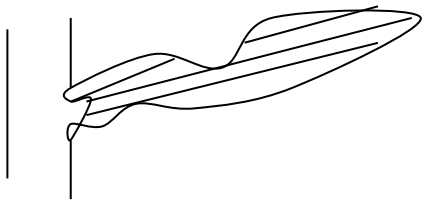
- They make food for the plant.
- Some leaves store food
- They help plants during transpiration

Note : Plants use stomata for breathing

Types of leaves

a) Simple leaves

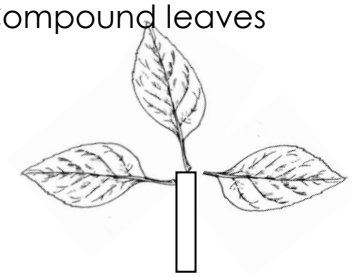
Illustration



Examples of plants with simple leaves

- Mango plant
- Orange
- Jack fruit

b) Compound leaves



examples of plants with compound leaves

- Bean plant
- Cassava plant
- Soya bean
- Acacia plants
- Molinga plant

PHOTOSYNTHESIS

It is the process by which green plants make food I the presence of sunlight and carbondioxide.

NB: Food made by plants is called starch.

Conditions necessary for photosynthesis

- Chlorophyll (Green colouring matter that trap sunlight)
- Carbondioxide } These are raw materials of photosynthesis
- Water }
- Sunlight (provide energy to plants)
- N.B Transpiration is the process by which green plants lose water to the atmosphere through the leaves.

By – products of photosynthesis

a) Oxygen

b) Starch

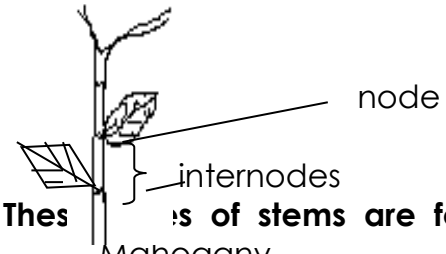
Uses of leaves to animals.

- Leaves are eaten as food
- Leaves are used as herbal medicine
- Some plants have leaves sused f or thatching houses
- They are used for d ecoration
- People sell leaves and get money.

STEM

Types of stems

1. Upright stems//erect stems



These types of stems are found in woody plants like

- Mahogany
- Eucalyptus
- Ficus tree
- Mango tree
- Muvule

2. Climbing stems

They are also called weak/clasping stems.

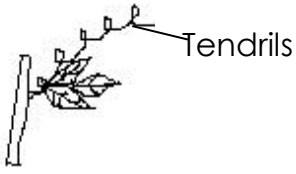
Examples of plants with climbing stems

- Passion fruits
- Vanilla
- Some bean plants
- Loofah plants
- Water melon
- Pumpkin
- Some yams
- Cucumber

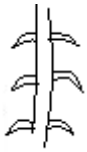
How climbing plants climb others.

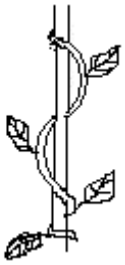
- By twinning /clasping
- Using hooks or thorns
- Using tendrils

Plants using tendrils by twinning



Plants using hooks

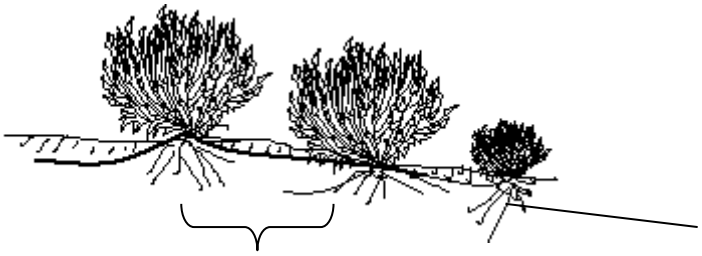




3. Underground stems

These are stems found below the ground e.g

- Spear grass
- Couch grass
- Ginger



USES OF STEMS

(a) To plants

- stems store food for the plants
- Transport and food
- Support branches and leaves
- Stems make plants to stand

(b)To animals

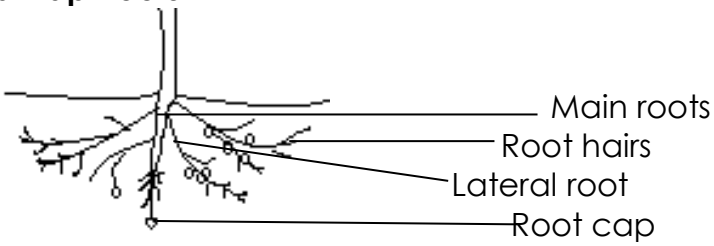
- Stems are eaten as food
- Provide animals medicine
- Provides building materials
- We get timber/poles from woody plants

Roots

It is part of a flowering plant found under the ground.

TYPES OF ROOTS

(a Tap roots



Root systems

There are two types of root systems namely:-

a) Tap root system
b) Fibrous root system

N.B. Root cap

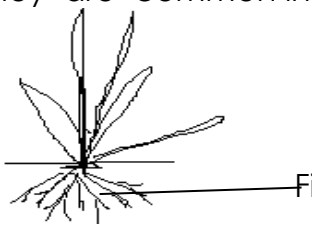
- protects the growing tip of the root.

Examples of plants with tap root system (legumes)

- Beans
- Peas
- Soya
- G.nuts
- Simsim

(b) Fibrous roots

They are common in cereals/grains e.g sorghum

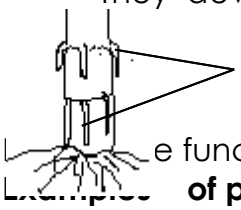


Examples of plants with fibrous roots

- Maize
- Sorghum
- Millet
- Wheat
- Rice
- Barley
- Oats
- Some grasses

(c) Prop roots

They develop from the stem of the plant



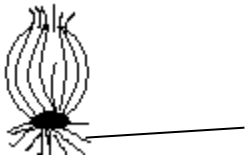
e function of prop root is to give extra support to the plant.

of plants with prop roots

- Sorghum
- Maize
- Millet and some grasses

(d) Adventitious roots

(e) These also develop from the stem of the plant. They are common in plants like onions, some yams



Uses of roots to plants

- Hold the plant firmly in the soil
- Absorb water and mineral salts from the soil
- Stores food for t he plant

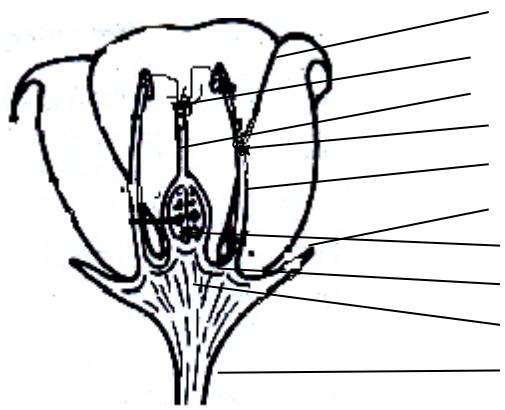
Uses of roots to animals.

- It is a source of food
- It is used as herbal; medicine
- Controls erosion like he buttress roots
- Some people sell roots and get money

The flower

A flower is the reproductive part of a plant.

Parts of a flower.



NOTE: Pistil is the female part of a flower
Stamen is the male part of a flower.

Uses of flowers to people.

- They are used for decoration
- Bees and birds get nectar from flowers
- They are eaten as food
- They are used for making perfumes
- They are used for making colours
- They are used as herbal medicines

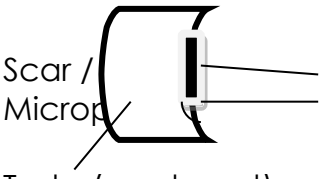
Uses of flowers to plants

- They help a plant to reproduce.

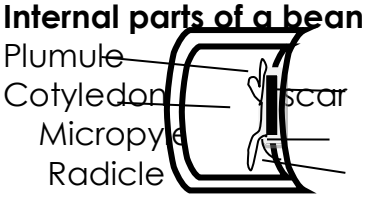
SEEDS

A SEED IS A DEVELOPED OVULE

External parts of a bean seed



Internal parts of a bean seed



Groups of seeds

Monocotyledous seed

Dicotyledonous seeds

Uses of seeds

- Seeds are eaten as food.
- Seeds are used for planting
- They are sold
- They are used as medicine
- They are used I making crafts
- They are used for making vegetable oil.

Dangers of plants

Some plants are poisonous e.g Sodom apple to cattle
Some pare thorny and therefore damage the skins of animals.
Some plants harbor/hide dangerous animals and pests

Plants can be weeds hence compete for nutrients with crops.
Some water weeds cause suffocation of fish in the water.

Crop growing

Steps of clearing land
-slashing: shortening of grasses or some bushes using a slasher
- digging /ploughing- breaking up of soil in preparation for planting

Planting : It is putting a planting material in the soil
- Seeds are selected for planting
- Afterwards seedlings are cared for.

Methods of planting
1. Broadcasting method: Is the planting of seeds by scattering them at random on land.
2. Row planting: Is the growing of plant material in lines.

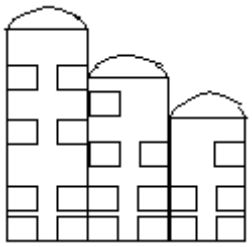
Caring for crops
Weeding: The removal of unwanted plants from the garden.
Staking: giving extra support to plants with weak stems.
Pruning: Removal of excess branches from the plant.
Thinning : Removal of excess plants from the garden to create space.
Mulching: is the covering of different crops on the same piece of land seasonally.
Spraying: Application of chemicals on plants to control pests and diseases.

- Harvesting removal of ready crops from the garden during dry season.
- Drying harvested crops.

Storing harvested crops

Granaries

Silos



Material used to make a granary
a) grass , pole reeds, banana fibres
crops stored in a granary
sorghum , Rice , maize , millet
storage : pests , rats and weevils
Marketing
It is the selling of crops

Places of marketing
- Markets
- Shop
- Vending

PESTS AND DISEASES
4 pests is an animal which destroys farmers' crops.
Examples
- Monkey
- Rats
- Weevils
- Goat
- Birds
- Cows

Pests control measures
- Weeding
- Crop rotation
- Using scare crows
- Spraying using pesticides
- Row planting
- Early planting

NOTE: Crop rotation , early planting and proper spacing are natural methods of controlling pests

Removing infected parts from the plant
Uprooting the plants which are severely attacked .

- Crop diseases
- Mosaic ,
- potato blight ,
- rust ,
- blast ,

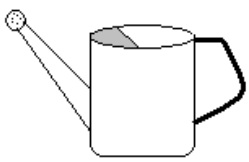
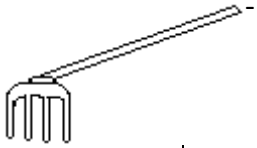
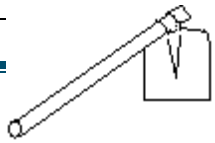
- panama smut and rot

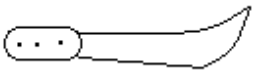
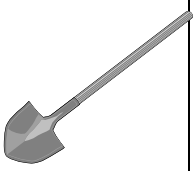
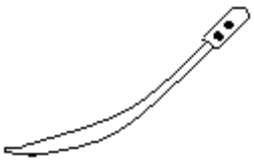
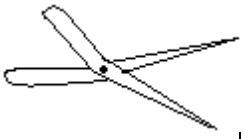
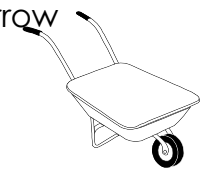
Effects of diseases to plants.

- They cause the crop to rot.
- Crops wither
- Crops dry out before time
- Fruits ripen prematurely
- Leaves fall off or become pale.
- Roots dry

Disease control measures in crops.

- Practice crop rotation
- Weeding
- Early planting
- Prune/remove the diseased parts
- Uproot the infected crops and burn them.
- Spray crops with medicine to control the diseases.

GARDEN TOOLS	IMPORTANCE	WAYS OF CARING FOR GARDEN TOOL
Rake 	- For collecting or gathering rubbish	- Keeping tools in a dry place. - By painting the tools. - By oiling garden tools - By greasing the tools. - By cleaning tools - before storing them.
Watering ca 	- Watering crops	
Forked hoe 	- For digging hard soil and stony areas	
Trowel 	- For transplanting	
Hoe 	- For digging - For weeding	

panga 	- For cutting down small trees. - For harvesting ready crops	
Spade 	- For carrying soil	
Slasher 	- For slashing	
sickle 	- For cutting grass	
Prunner 	- For prunning	
Garden fork 	- For turning manure	
Wheel barrow 	- For carrying soil - For carrying and transporting tools and harvested crops.	

Seed germination

Is the process by which a seed develops into a young plant.

A young plant is known as a seedling

Conditions necessary for germination.

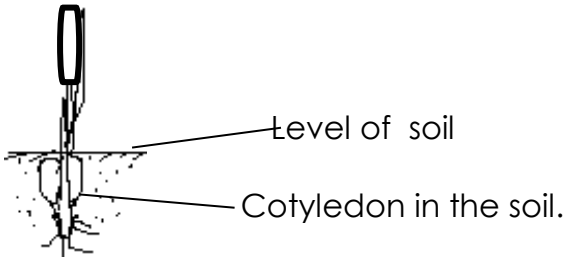
- Water , air , warmth

Types of germination

- Epigeal
- Hypogeal

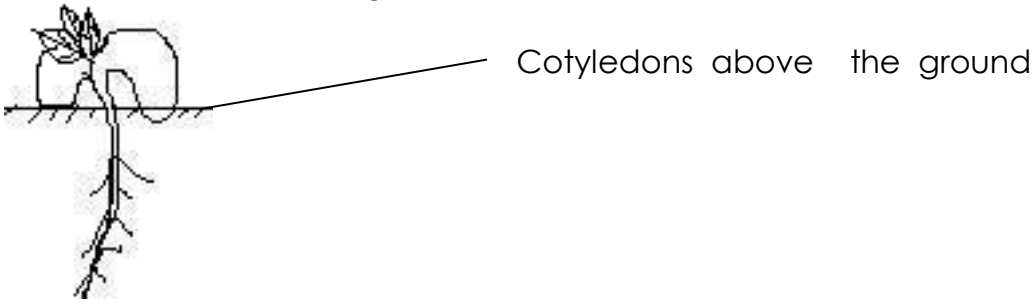
Hypogeal germination is where the cotyledons remains under the ground in the soil.
It is common in cereals or monocots e.g maize , millet , sorghum , rice , wheat , barley

Diagram to show hypogeal germination.



Epigeal germination is the type of germination where cotyledons come out of the ground (beans , g.nuts, etc)

Diagram to show epigeal



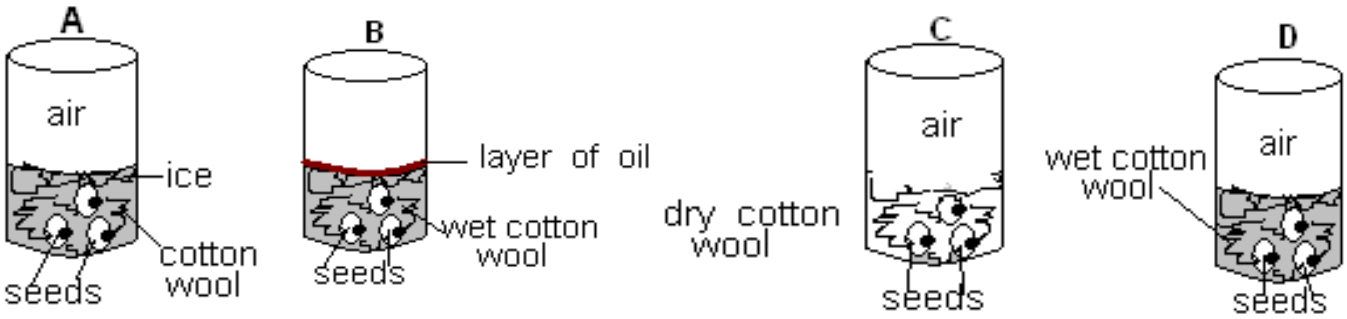
Note: Plant a bean and maize to show the types of germination.

- Germination , burning , rusting and breathing (life) all use a common gas called oxygen.

An experiment to show the condition needed for germination.

Things needed

- 3 tins
- Cotton wool
- Seeds (beans , maize)
- Ice
- Oil



- In tin A the seeds will not germinate because there is no warmth.
- In tin B, the seeds will not germinate because there is no air . The oil prevents air from entering to reach the seeds.
- In tin C, the seeds will not germinate because there is no water (moisture)
- In tin D, the seeds will germinate because there is air, water and warmth. The cotton provides warmth.
-