

P.3 LITERACY I

TERM I

THEME	SUB THEME	INSTRUCTIONAL MATERIAL
1. Our environment in our sub-county division	Soil	<ul style="list-style-type: none"> - Soil lump - Beaker - Source of heat - Water
	Types of soil	<ul style="list-style-type: none"> - Soil (clay, sand and loam)
	Drainage of water in the soil.	<ul style="list-style-type: none"> - 3 containers (glasses). - Cotton - Funnel - Water - Soil (clay, sand and loam)
	Soil texture	<ul style="list-style-type: none"> - Soil (clay, sand & loam) - A chart showing soil texture.
	Soil profile	<ul style="list-style-type: none"> - A chart showing the soil layers. - Bottles, stones and soil.
	Natural changes in the environment.	<ul style="list-style-type: none"> - Environment. - Teacher's resource.
	Man made changes in the environment.	<ul style="list-style-type: none"> - Environment. - Teachers' resource.
	Ways of managing changes in the environment.	<ul style="list-style-type: none"> - Local environment.
	Simple projects.	<ul style="list-style-type: none"> - Our school compound
Air and sun	Air	<ul style="list-style-type: none"> - Local environment. - A chart showing the components of air. - Soda, fire extinguishers.
	Properties of air.	<ul style="list-style-type: none"> - Balloons - Candles - Match boxes - Bottles - Basins - Weighing scale - Water - Paper cards - Straws - Balls - Tyre tube
	Dangers of winds	<ul style="list-style-type: none"> - A chart showing plants and houses destroyed by wind.
	The Sun	<ul style="list-style-type: none"> - The local environment.
	Experiment to show how plants need sunlight.	<ul style="list-style-type: none"> - Seedlings in a tin. - A chart showing different crops in response to sunlight.
	Shadows	<ul style="list-style-type: none"> - Local environment.

		<ul style="list-style-type: none"> - A chart showing the formation of shadows.
	Characteristics of shadows	<ul style="list-style-type: none"> - Torch - Objects (balls) - The local environment.
	Sources of light	<ul style="list-style-type: none"> - Local environment. - Torch - Mobile phones. - Candles - Lamp - Electricity.
	Water	<ul style="list-style-type: none"> - A chart showing the rainfall cycle. - Stove - Saucepan - Bottle (cold and ice) - Water - Kettle - plate
	Types of clouds	<ul style="list-style-type: none"> - Atmosphere
	Monitoring weather changes	<ul style="list-style-type: none"> - A weather chart. - Atmosphere
	Weather instruments	<ul style="list-style-type: none"> - A chart showing weather instruments. - A thermometer - Barometer - Wind/sock
	Importance of rain	<ul style="list-style-type: none"> - Water
	Harvesting water	<ul style="list-style-type: none"> - Jerrycans - Basins - Source pans - Tanks - Buckets.
	Things to keep proper sanitation.	<ul style="list-style-type: none"> - Brooms - Soap - Water - Dustbin.

TERM II 2010

INSTRUCTIONAL MATERIALS FOR P.3

THEME	SUB THEME	INSTRUCTIONAL MATERIALS
Living things and non living things.	Examples of living things and non living things.	<ul style="list-style-type: none"> - Our environment. - Modles. - Cutouts - Objects, insects - A chart showing birds.
Animals in our sub-county	Types of living things.	A chart showing; <ul style="list-style-type: none"> - Domestic animals. - Types of hutches. - Types of rabbits. - Wild animals.
	Animal habitants	<ul style="list-style-type: none"> - Collected insects. - A chart showing different animals at home, in forest, in swamps, aquarium.
	Animal movements	<ul style="list-style-type: none"> - Teacher's resource - Our environment.
	The fish	<ul style="list-style-type: none"> - Fish (real) - A chart showing different fish. - A chart showing the parts of a fish.
	Fish preservation	<ul style="list-style-type: none"> - Dried fish.
	The birds	<ul style="list-style-type: none"> - A chart showing parts of a bird. - A chart showing different birds.
Living thing (Animals in our sub-county)	<ul style="list-style-type: none"> - Types of birds. - Uses of birds to people. - Dangers of birds to the environment. 	<ul style="list-style-type: none"> - Birds in our environment - “ - “
	<ul style="list-style-type: none"> - (Insects) External parts of an insect. - Characteristics of insects. - Harmful and dangerous insects. - Habitants of insects. 	<ul style="list-style-type: none"> - Real insects. - A chart showing parts of an insect. - A variety of insects. - “
	<ul style="list-style-type: none"> - Caring for domestic birds and wild animals. 	<ul style="list-style-type: none"> - Our environment.

	- Plants and their habitants.	- Different plants. - Our environment. - A chart showing parts of a plant.
	- Characteristics of plants.	- The environment
	- Caring for crops	- Our garden - Our compound.
	- Parts of a flowering plants.	- Environment - Real objects. - A chart showing parts of a flowering plant.
Living things (Plants in our sub-county)	- Parts of a plant and their uses.	- Real stems - Real leaves - Real roots - Real flowers.
	- Types of roots	- Different types of roots (real roots) - A chart showing different roots.
	- The flowers	- Real flowers. - Environment - A chart showing parts of a flower.
	- Seeds	- Real seeds - Our environment.
	- Crop growing practices.	- Our garden - Our environment
Health in our sub-county	- Diseases - Vectors	- A chart showing common vectors e.g. housefly, cockroach, mosquitoes etc.
	- Types of mosquitoes	- A chart showing the types of mosquitoes. -
	- Types of mosquitoes	- A chart showing the types of mosquitoes. - A chart showing the life cycles of mosquitoes. - Broken bottles - Cups - Tins, sprays.
	- House flies	- A chart showing parts of a housefly and its life cycle.
	- Control of diseases spread by housefly	- Real objects - Sprays - Insecticides - Brooms - Clean utensils.
	- Cockroach	- Real cockroaches. - A chart showing the life cycle of a cockroach.
	- Tsetse fly	- A chart showing the life cycle of a tse tse fly. - A chart showing the vectors, diseases and their control
	- Malaria - Signs and symptoms - Control and treatment	- Mosquito nets. - Insecticides - Oil - Chloroquine, coatem
	- Cholera	- A chart showing a person suffering from cholera.
	- Typhoid - Diarrhea	- A chart showing the signs and symptoms of disease spread by vectors.

	- Dysentery	
	- Diseases with causing germs.	- A chart showing diseases and their causing germs.
	- Ways in which vectors spread diseases	- A chart showing the cycle of the 4F's chain.
	- Dehydration	- A chart showing a person vomiting and passing out stool.
	- Preparation of the ORS	- Salt - Sugar - Water - Saucepan - Spoon - soap
	- Preventing and controlling vectors	- Brooms - Insecticides - Slashers.
	- HIV/AIDS	- Flash cards with HIV/AIDS messages
	- PIASCY	- Flash cards with printed messages
Energy in our sub-county	- Sources of energy	- Our environment - Charcoal - Paraffin - Candle
	- Wind as a source of energy	- Wind mill - Kites - Wind vanes
	- Artificial source of energy	- Wood - Charcoal - Coal, paraffin
	- Experiments to show that air moves things.	- Tins, plastic, bottles, nails, leaves, knife, razor blade, sticks, polythene, strings, threads.
	- Ways of saving energy	- Energy saver bulb. - Match box - Candle - Our environment.
	- Accidents	- A visit to the road side. - Sharp tools, nails, broken bottles.
	- First aid	- First aid box e.g. razor blade, plaster, cotton, water etc.

P.3 LITERACY I TERM I BREAKDOWN

Our environment in our sub-county/division.	<ul style="list-style-type: none">- Soil- Components of soil.- Types of soil.- Soil texture- Soil profile- Uses of soil
Environment	<ul style="list-style-type: none">- Natural causes of changes in the environment.- Effects of changes.- Human activities in the environment.- Possible ways of managing changes in the environment.- Simple project on tree planting.
(a) Air and the sun	<ul style="list-style-type: none">- Properties of air.- Importance of air.- Experiment on properties of air.
(b) The sun	<ul style="list-style-type: none">- Importance of the sun.- Dangers of the sun

Water	<ul style="list-style-type: none">- Experiments why plants need light.(a) <u>Formation of rainfall</u><ul style="list-style-type: none">- Water cycle- Types of clouds- Effects of clouds- Monitoring weather- Process of water cycle- Measuring rainfall(b) <u>Effects of rain:</u><ul style="list-style-type: none">- Importance of rain on soil, plants and animals.- Dangers of rain on soil, plants and animals.(c) <u>Managing water.</u><ul style="list-style-type: none">- Importance of water- Sources of water- Water harvesting- Maintenance of water sources.
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P.3 LITERACY 1 LESSON NOTES - BREAKDOWN
TERM II, 2010

P.3 LITERACY 1 TERM III BREAKDOWN

Health in our sub-county	(a) Disease vectors - Definition of vectors - Examples of vectors
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	<ul style="list-style-type: none"> - Characteristics of vectors
	<ul style="list-style-type: none"> (i) Mosquitoes <ul style="list-style-type: none"> - Diseases spread by mosquitoes. - Control of mosquitoes - Life cycle of anopheles mosquito - Life cycle of a culex mosquito.
	<ul style="list-style-type: none"> (ii) House flies <ul style="list-style-type: none"> - A diagram of a housefly - Features of a house fly. - Diseases spread by house flies. - Control of diseases spread by houseflies. - Life cycle of a housefly.
	<ul style="list-style-type: none"> (iii) Cockroach <ul style="list-style-type: none"> - Places where cockroaches live. - Control of diseases spread by cockroaches. - Life cycle of a cockroach.
	<ul style="list-style-type: none"> (iv) Tse tse flies <ul style="list-style-type: none"> - Characteristics of tse tse fly. - Control of diseases spread by tse tse flies. - Life cycle of a tsetse fly. - A table showing vectors, diseases and their control.
	<p>Diseases spread by vectors.</p> <ul style="list-style-type: none"> (a) Malaria <ul style="list-style-type: none"> - Causes of malaria - Signs and symptoms of malaria - Control and treatment of malaria
	<ul style="list-style-type: none"> (b) Cholera <ul style="list-style-type: none"> - Causes of cholera - Ways of spreading cholera - Signs and symptoms of cholera - Control and treatment of cholera.
	<ul style="list-style-type: none"> (c) Typhoid <ul style="list-style-type: none"> - Causes of typhoid. - Ways of spreading typhoid. - Signs and control of typhoid. - Control and treatment of typhoid
	<ul style="list-style-type: none"> (d) Diarrhea <ul style="list-style-type: none"> - Definition - Causes of diarrhea - Ways of spreading diarrhea - Signs and symptoms of diarrhea - Control and treatment of diarrhea
	<ul style="list-style-type: none"> (e) Dysentery <ul style="list-style-type: none"> - Causes of dysentery. - Signs and symptoms of dysentery. - Control and treatment.
	<ul style="list-style-type: none"> (f) Trachoma <ul style="list-style-type: none"> - Causes of trachoma - Spread of trachoma - Parts affected by trachoma - Signs and symptoms. - Control and treatment

	<p>(g) Yellow fever</p> <ul style="list-style-type: none"> - Causes of yellow fever. - Spread of yellow fever. - Signs and symptoms - Control and treatment.
	<p>(h) Sleeping sickness (Trypanosomiasis)</p> <ul style="list-style-type: none"> - Causes of sleeping sickness. - Spread of sleeping sickness. - Signs and symptoms - Control and treatment
Health in our sub-county	<ul style="list-style-type: none"> - Ways through which vectors spread diseases. - Through the 4 F's chain. - Diseases spread through the 4 F's. - Diseases spread through bites. <p><u>Dehydration</u></p> <ul style="list-style-type: none"> - Definition - Causes of dehydration. - Signs and symptoms of dehydration. - Treatment of dehydration. - Preparation of ORS (steps taken) - Contents used to prepare ORS (solute, solvent, solution)
HIV/AIDS	<ul style="list-style-type: none"> - Causes of HIV/AIDS. - Ways through which Aids is spread. - Signs and symptoms of HIV/AIDS. - Prevention and control of HIV/AIDS - Effects of HIV/AIDS to; <p>(i) An individual (j) The family (k) The community</p>
HIV/AIDS	<ul style="list-style-type: none"> - Caring for HIV/AIDS patients. - Protective measures during the caring for the patients. <p>PIASCY</p> <ul style="list-style-type: none"> - Meaning of PIASCY - PIASCY messages to the youth.
Sources of energy	<ul style="list-style-type: none"> - Definition of energy. - Natural and artificial/sources of energy. - Wind as a source of energy and its uses. - Things moved by wind. - Water as a source of energy. - Uses of energy from the sun. <p><u>Artificial sources of energy</u></p> <ul style="list-style-type: none"> - Fuels and examples. - Uses of fuels to man. - Uses of electricity. <p>Experiments on wind as a source of energy.</p> <ul style="list-style-type: none"> - Making of propellers using plastic fins, nails, leaves and sticks. - Making a kite using polythene, sticks, strings, threads and a knife. - Ways of saving energy/energy conservation in a home. - Importance of saving energy.

	<ul style="list-style-type: none"> - Dangers of energy. - Ways of avoiding the dangers of energy in a home.
Accidents and First Aid	<ul style="list-style-type: none"> - Definition of accidents. - Accidents at the road and its causes. - Road users. - Controlling road traffic accidents. <p><u>Accidents at home</u></p> <ul style="list-style-type: none"> - Things that cause accidents at home. - Causes of accidents at home. - Ways of controlling accidents at home. <p><u>Accidents at school</u></p> <ul style="list-style-type: none"> - Causes - Examples of accidents at school. - Ways of preventing accidents at school. <p><u>First Aid</u></p> <ul style="list-style-type: none"> - Definition - Aims/importance of First Aid. - First Aider and his qualities. - Types of first aiders. - The first Aid box and its components. - Importance of each component found in the first Aid box. - First Aid for simple injuries like burns, cuts, scalds, fractures, nose bleeding and drowning.
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P.3 LITERACY I TERM ONE

THEME 3: OUR ENVIRONMENT IN OUR SUB COUNTY / DIVISION.

SUB THEME: Soil

- Soil is a composition of air, water, dissolved mineral salts and living organism, particles of rocks and humus.
 - Soil is where plants grow from. It is the top layer of the earth's surface.
- Composition of soil (components / constituents)
1. Air
 2. Water
 3. Dissolved mineral salts
 4. Living organisms
 5. Particles of rocks
 6. Humus – The dead plants and animals in soil.

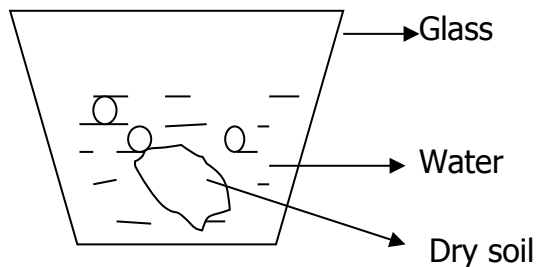
Experiment about soil components

1. An experiment to show that soil contains air.

Things needed.

- Dry soil , water , container (glass)

Fill the container half way with water add the soil lump and observe what happens.



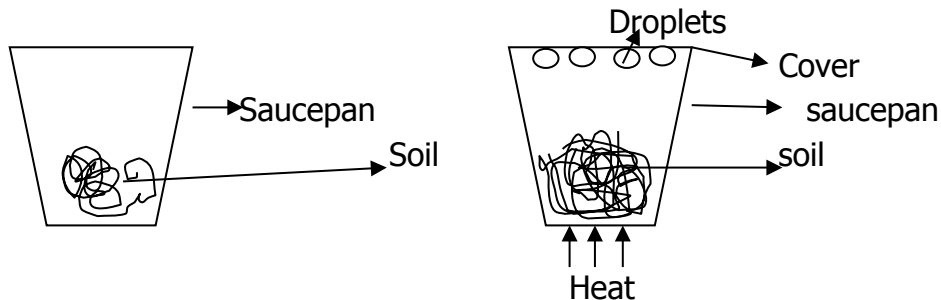
Bubbles represent air coming from the soil. The spaces are then filled with water and its level goes.

2. An experiment to show that soil contains water or moisture.

Things needed.

- Wet soil.
- Sauce pans
- Cover
- Source of heat (fire), stone

Get wet soil and put it in the sauce pan. Put the sauce pan on fire and heat while covering.



Water droplets will be seen on the cover and sides of the saucepan.

Droplets of water represent the water escaping from soil in form of vapour.

3. An experiment to show that soil contains humus.

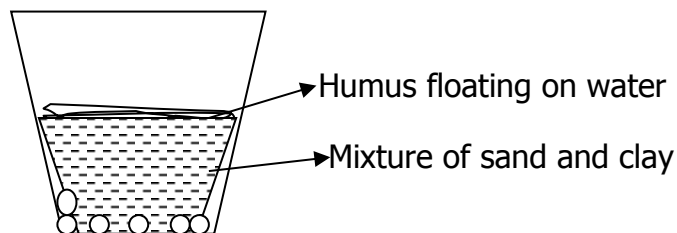
Things needed.

- Lump of soil.
- Water
- Glass

Get some soil and put it in the glass.

Add water to the glass and stir or shake.

Let the mixture settle.



Humus are the dead plant and animals in soil. It makes the soil fertile.

4. An experiment to show that soil contains living organisms. (animals)

Collect sample of soil and look for any living organisms. (animals)

Some of the living organisms found in soil.

- Termites , red ants, snails, slugs etc.
- Earth worms aerate the soil.

Types of soil.

There are three types of soil.

- Loam soil
- Clay soil
- Sand soil

Characteristics of loam soil. (features of soil)

- It is a mixture of sand and clay.
- It has a lot of humus.
- It is well aerated.
- It has moderate particles.
- It is dark in colour.
- It is the best for growing crops.
- It also has filtration of water
- It has high drainage
- It is always fertile.

Clay soil.

- It has the smallest particles.
- It is sticky.
- Its particles are closely packed together.
- It has smooth fine particles
- It is poorly aerated because it has the smallest air spaces.
- It has little humus.
- It drains water slowly.

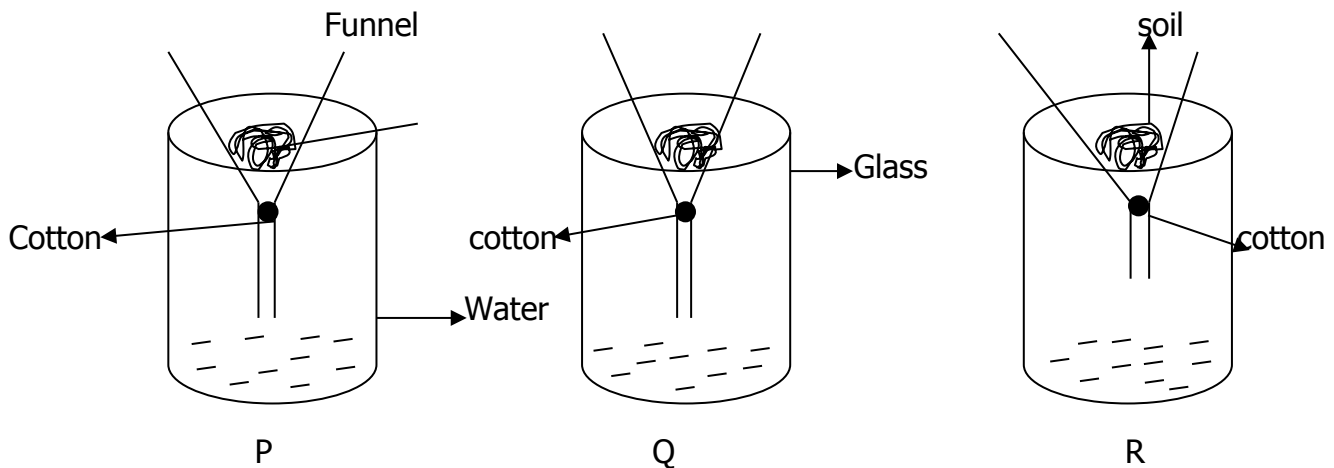
Sand soil.

- It has the biggest particles.

- Its particles are rough.
- It has humus.
- Its particles are loosely packed.
- It has large air spaces
- It drains water quickly.

5. An experiment to show and find out drainage of water through different soils.

- Collect sand , clay and loam soil.
- Take three glass funnels. Place cotton wool in each of the funnel.
- Half fill the funnel with equal volumes of dry sand clay and loam soil and stand them in three jars. (tins).



Types of soil in funnels according to the water collected.

P – Sand soil

R – Loam

Q – Clay soil

Sand soil allows water to pass through fastest.

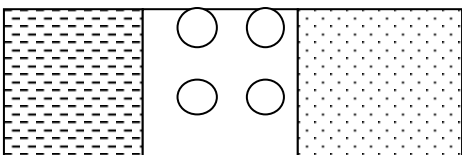
Clay soil drains water slowly.

Loam soil drains water moderately.

Soil Texture: The different sizes of soil particles

Soil structure: The way in which soil particles are arranged.

Diagrams showing soil particles.



A – Clay soil

B- Sand soil

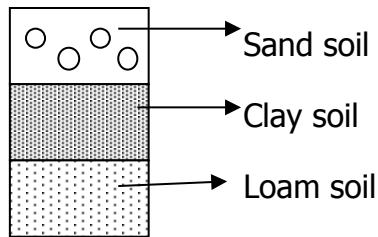
A

B

C

C -Loam soil

The diagram showing the air spaces (How soil particles are arranged)



Soil formation.

Soil formation is the way soil is formed soil is formed in two ways.

- i) When dead plants and animals rot or decay. (decomposition).
- ii) By weathering . the process by which rocks break down into small particles to form soil.

Agents of weathering. Things which help rocks to break down.

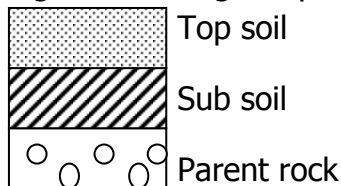
1. Man / animals
2. Running water.
3. Earth quake
4. Plants
5. Strong wind
6. High temperature.

Soil profile.

Soil profile is the vertical arrangement of soil layers. It is made up of the layers.

1. Top soil. – it is dark in colour and has a lot of humus.
It is good for plant growth.
2. Sub soil. Brown and has no humus.
3. Parent rock. It is where weathering takes place.
It is made up of stones.

The diagram showing soil profile



Use of soil to man.

- Sand soil is used for building.
- Man sells soil and gets money.
- Clay soil is used for modeling.
- Man grows crops in soil.
- Clay soil is used for brick making.
- Clay soil used in pot making

Uses of soil to plants.

- Plants get water from soil.
- Plants get mineral salt from soil.

- The soil holds plants upright with the help of roots.
- Plants get humus from soil

Uses of soil to animals.

- Some animals live in soil. E.g. earth worms rats termites, moles, rats snakes, red ants, squirrels.

Natural causes of changes in the environment.

Natural / God made changes

These are changes n animals

- | | |
|-----------|-----------------|
| i) Growth | iii) Movement |
| ii) Death | iv) Reproducing |

Natural changes in plants.

- Growing of plants
- Ripening of fruits.
- Germination of seeds

Effects of natural changes in the environment .

- | | |
|-----------------------------|------------------------|
| i) Man (animals) gets food. | iii)Animals get air to |
| ii) Animals get shelter. | breathe in. |

Natural changes in the environment.

- Seasons (wet and dry season)
- Changes in weather.
- Drought – A period of two much sunshine .
- Soil erosion.
- Earth quakes
- Floods
- Rusting of metals.

Soil erosion is the washing away of top soil. Removal of top soil.

Agents of soil erosion . things which help the erosion to take place.

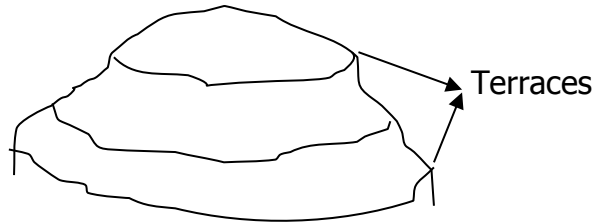
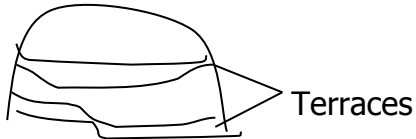
- i) Strong wild
- ii) Running water.
- iii) Animals
- iv) Man

Causes of soil erosion. The are the man's activities which leave the soil bare.

- i. Deforestation . (Cutting down of trees)
- ii. Bush burning.
- iii. Over grazing animals.
- iv. Over cropping (cultivation)
- v. Mono cropping/mon culture
- vi. Swamp drainage.
- vii. Over stocking animals

Methods / ways of controlling soil erosion.

- i. By terracing – The slop is cut into steps to reduce the speed of running water.



- ii. Contour ploughing – planting of crops across the hills.
- iii. Strip cropping
- iv. Bush fallowing.
- v. Re- a forestation
- vi. A forestation, mulching – covering of top soil with dry plants materials
- vii. Crop rotation.
- viii. Cover cropping
- ix. Intercropping
- x. Agro forestry

Changes in the sky.

- Formation of rainfall.
- Movement of clouds.
- Rising and setting of the sun.
- Change in the phases of the moon.
- Change in weather.

Man made changes (people made) human activities.

These are the changes made by people (man)

- | | |
|---|--------------------|
| - Planting trees. (Aforestation) | - Cultivation |
| - Cutting down trees building houses
(Deforestation) | - Bombing. |
| - Making roads. | - Killing animals. |
| - Painting building. | - Draining swamps. |
| | - Accident. |

Effects of man made changes.

- People die.
- Animals die.

- People become lame.
- Animals get food.
- People get easy transport.
- People get good shelter.
- Drought
- People get roads
- Rusting of tools

Ways of managing natural and man made changes.

- Floods :
- Digging trenches.
 - Avoid clearing swamps.
 - Avoid building in drainage system

- Drought :
- Planting trees
 - Avoid clearing swamps.
 - Digging valley dams.

- Accidents :
- Use road signs.
 - Having traffic rules.
 - Avoid reckless driving.
 - Avoid incompetent drivers
 - Cleaning tools after use.

- Rusting :
- keeping tools in dry place.
 - Painting tool
 - Oiling tools
 - Greasing the tools.

Simple project on the planting.

- Tree planting/afforestation

Example of trees in our compound

- Mango trees
- Eucalyptus trees.
- Muvule trees
- Musisi trees
- Mutuba trees
- Oranges
- Ovacado trees
- Musasa trees
- Molinga trees
-

Uses of trees

- Trees provides fire wood.
- Trees provide timber.
- Trees provide shade.
- Trees form rainfall.
- Tree act as wind brakes
- Trees provide poles
- Trees provide oxygen

Reasons why people plant trees

- To get fire wood.
- To get timber.
- To get shade.
- To get oxygen.

SUB THEME. 4:1 AIR AND SUN

AIR

1. What is air?

Air is a mixture of gases.

2. Components / parts of air

The gases that make up air are;

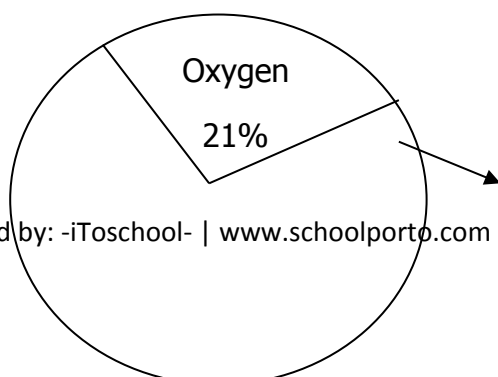
- Carbondioxide
- Oxygen
- Nitrogen.
- Rare gases / inert gases / noble gases.

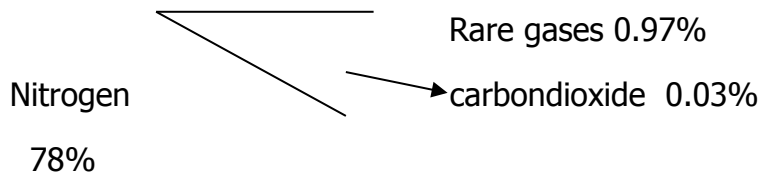
3. Percentages of gases in atmosphere / space

- Nitrogen takes the largest part in the atmosphere .
- Rare gases take the least part in the atmosphere.

Gases	Percentage
a) Nitrogen	78% or 78/100
b) Oxygen	21% or 21/100
c) Rare gases.	0.97% or 0.97/100
d) Carbondioxide	0.03% or 0.03/100

Percentage of air in atmosphere.





General uses of air

1. Air helps to fly kites.
2. Air is used to fill balloons , floaters, tyres.
3. Moving air helps boats to sail.

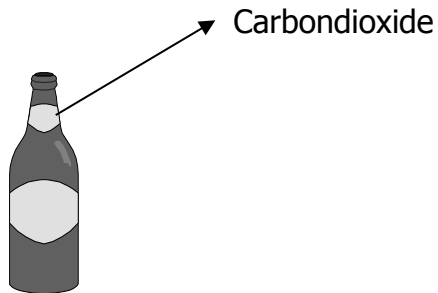
Uses of different gases.

Oxygen

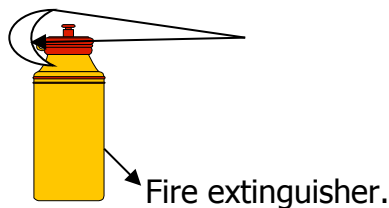
- Support life.
- Oxygen supports burning.
- Oxygen helps seeds to germinate.

Carbondioxide .

- Plants use carbondioxide in the process of making their own food. (photosynthesis)
- Carbondioxide is used to preserve drinks. Eg soda, beer, and tinned food.



- Carbondioxide is used in extinguishing fire. Why?
- It does not support burning.



Places where fire extinguisher are found.

- Schools
- Hospital
- Hotel
- Homes.

Nitrogen

- Nitrogen helps in formation of artificial fertilizers.
- Nitrogen provides nutrients to plants through minerals

Rare gases

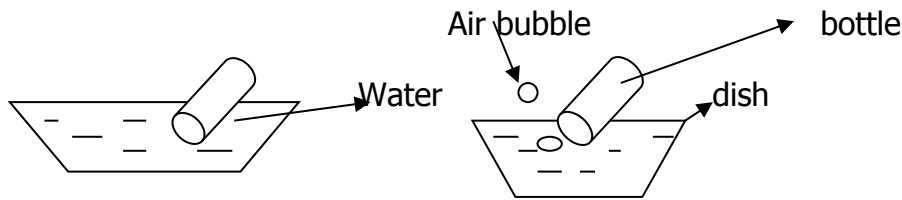
- Used in electrical bulbs.

Properties of air.

1. Air occupies space.

Experiment

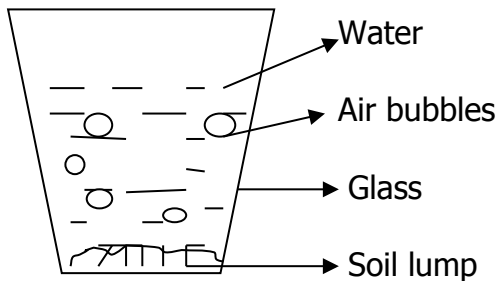
Put a bottle (glass) in a dish / basin full of water/ air in the bottle will escape in form of bubbles



Experiment 2

- a) Get a glass , dry lump of soil , water.
- b) Half fill the glass with water.
- c) Drop the soil lump in the glass.

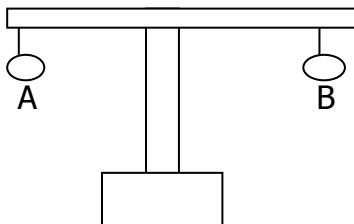
Observation : Air bubbles as seen escaping from the soil lump.



2. Air has weight

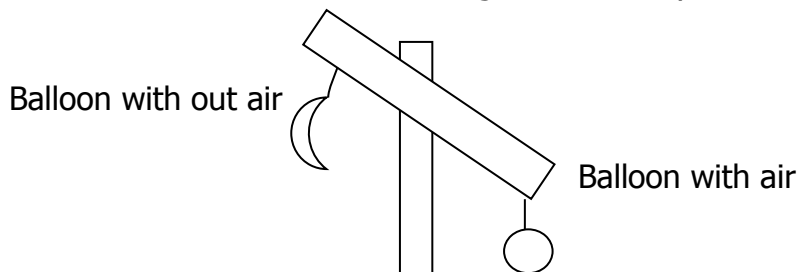
Experiment

The two balloons below are balancing because they have the same amount of air



Using a sharp pin, put a hole on balloon A.

- Air will move out.
- The ballons are now not balancing because they do not have the same weight.

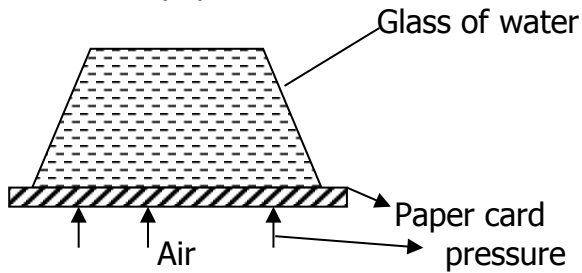


3. Air exerts pressure .

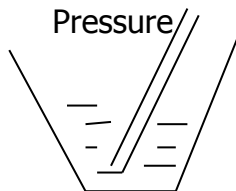
- i) Apparatus glass , water , paper card.
- a) Fill the glass with water.
- b) Press a paper card on top of the glass.

c) Turn the upside down.

Observation . the paper card does not falls off. Why? The air pressure pushes it up.



4. When drinking a drink eg. Soda using a straw. The pressure pushes the drink up the straw.



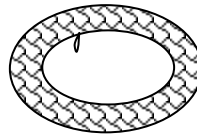
5. Air can be compressed.

a) Compressed air is used in the car tyres to support the weight of the car.

b) Compressed air is used in balls, balloons, floaters etc.



Ball



tyre tube

c) Compressed air is used in cylinder. Eg Oxygen cylinder , carbondioxide cylinder, sprays of fumes, insecticides.

Wind (moving air)

What is wind?

Wind is a moving.

Effects of wind

Used of wind.

- Wind cools our bodies.
- Wind moves things eg. Boats , kites.
- Moving air is used in winnowing .
- Moving air helps wind mills move.

Danger of wind.

- Strong wind destroys crops.
- Strong wind breaks tree branches.
- Wind spreads diseases like flu, cough etc.
- Wind rises dust.
- Strong wind destroys houses.

The sun

1. The sun is the main source of heat and light energy.
2. The sun is also the of solar energy.

Source of light

1. Natural sources of light are God made.

Examples the sun.

- Stars , glow worms, fireflies.
- Man – made sources of light are called Artificial.

sources of light.

Examples of artificial sources of light.

Torch, electricity , candle ,fire, etc.

Effects of the sun

Uses of the sun to animals (Man)

- The sun helps us to see.
- Heat from the sun helps in the formation of rainfall.
- The sun is a source of solar energy.
- The sun helps to dry clothes.
- The sun dries fore wood.
- The sun provided man with vitamin D.

Uses of sun to plants.

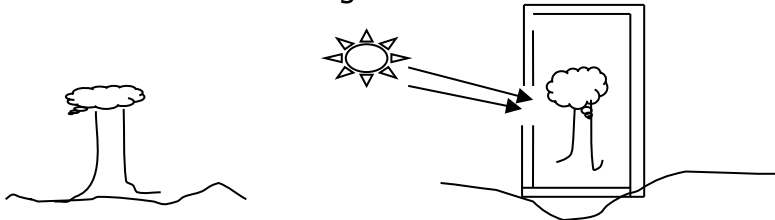
- The sun helps plants to make their own food.

Dangers of the sun.

1. Prolonged sunshine (dry season) causes drought.
2. The sun spoil eyes if we look at it directly.
3. Too much sunshine dries crops.

Experiment why plant need sunshine.

Plants need sunshine to grow well.



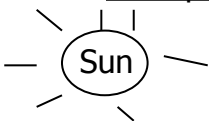
The plant in B bends to get enough light.

Shadows

Formation of shadows

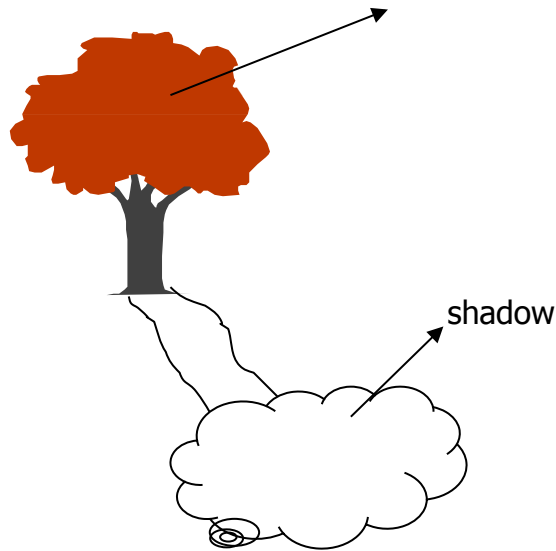
How are shadow formed ?

1. Shadows are formed when light falls on Opaque objects.
2. Opeque objects do not allow light to go through them. Eg walls, people , books. Etc.
3. Translucent objects allow some light to pass through them. Eg coloured polythene , toilet , glasses.
4. Transparent objects allow light to go through them eg. Clear glass, colourless , polythene.



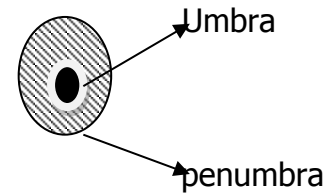
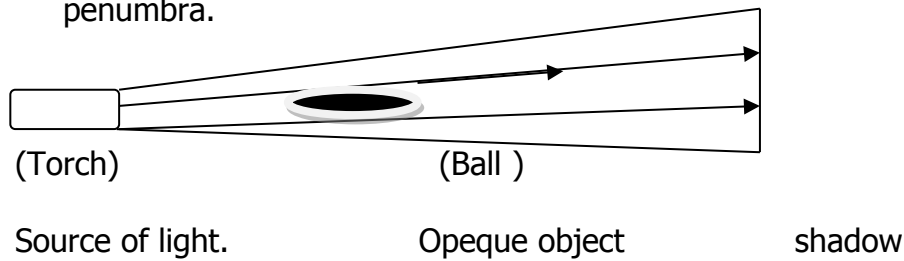
Source of light

object (opaque tree)



Characteristics of shadows.

1. Shadow appear shortest at noon or mid day.
2. Shadows appear longest in the early morning and late evening.
3. Shadows are way formed on the opposite of the source of light.
4. Shadows have two parts . a darker part known as **umbra** and a lighter one known as penumbra.



Use of shadows

- Shadows tell time.
- Shadows show direction.
- Shadow give us shade.

Source of light

There are two sources of light

- i) Natural source
- ii) Artificial source

Natural sources of light.

Natural sources of lights were created by God.

Examples.

The sun, star , starfish etc.

Note : The moon is not a source of light.

Why? The moon reflects light from the sun.

Artificial sources of light.

- Artificial sources are sources of light made by man.

Examples.

- A candle , electrical bulb etc.

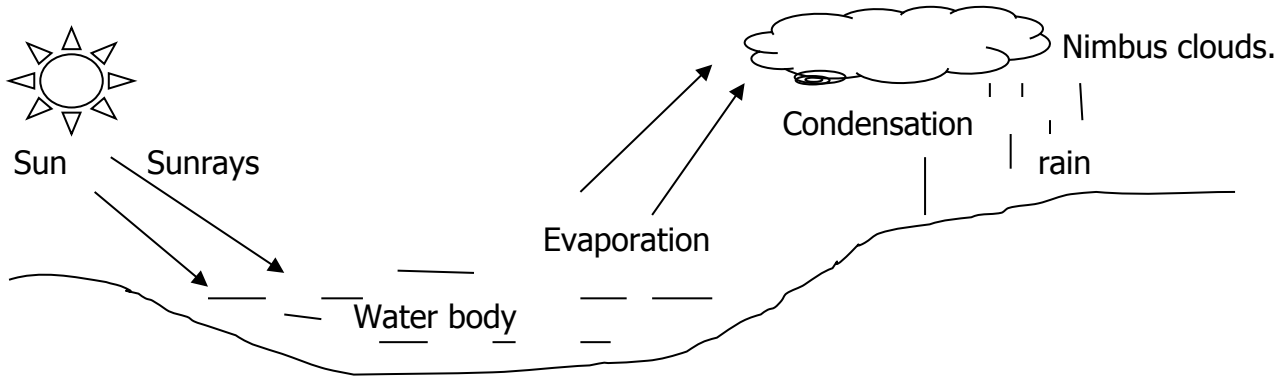
SUB THEME : Water

The water cycle / Rainfall formation .

This is the way rainfall is formed.

1. The sun heats the water body.
2. The water gets heated up and it starts evaporation. (raises up)
3. The vapour raises up and the condenses to form nimbus clouds.
4. The condensed vapour becomes heavy and then fall down as rain.

The diagram showing the water cycle.



An experiment to show how rainfall is formed.

Things to use.

- Stove
- Saucepans / kettle
- Water
- Bottle
- Match box.

Cold water

hand
Bottle

Kettle

vapour

droplets of water

Heat

1. The source of heat (stove) represents the sun.
2. The water in the kettle represents the water vapour.
3. At P the process of evaporation takes place.

Evaporation is the changing of the water into a gas

4. The cold water condenses the vapour.
5. Condensation is the changing of vapour (steam) into water.
6. The water droplets represents the rain.

Vapour is water in gaseous form ice is the solid form of water.

SUB THEME : Water

Types of clouds

Clouds are big masses of water that form in the sky.

There are four types of clouds.

- Nimbus clouds
- Stratus clouds
- Cumulus clouds
- Cirrus clouds

- .

Nimbus clouds .

- Bring rain.
- They are the nearest to the earth.
- Dark grey in colour.

Stratus clouds.

- They spread in the sky n calm start ayers
- They are a sign of fair weather .

Cirrus clouds.

- They are the furthest (highest in the sky)
- They resemble (look like) feathers.
Cumulus clouds
- They arte white in colour and resemble cotton piles.

Uses of the clouds

- i) Clouds help in the formation of rainfall.
- ii) Clouds protect us from direct sunshine.
- iii) Clouds make weather cool.

Monitoring weather changes.

1. Weather is the condition of the atmosphere at a given time.
2. Types of weather . (weather conditions)
 - Windy weather.
 - Rainy weather
 - Sunny weather
 - Cloudy weather .

Weather makers.

These are the factors or elements of weather .
They are also called aspects of weather.

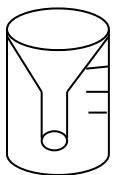
1. Rainfall .
2. Wind blow.
3. Cloud cover
4. Sunshine.
5. Temperature
6. Humidity

The weather instruments

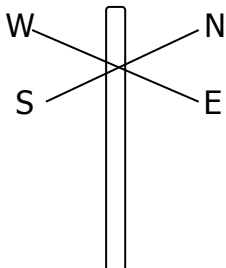
These instruments are used to measure or shows different weather conditions.

They are found at the weather station.

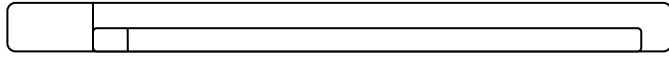
1. Rain gauge - Used to measure the amount of rainfall received.



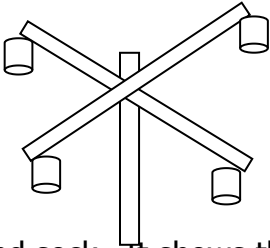
2. Wind vane – It shows the direction of wind.



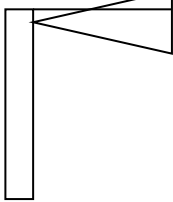
3. Thermometer. It measures temperature.



4. An Anemometer : It is measures speed of wild.

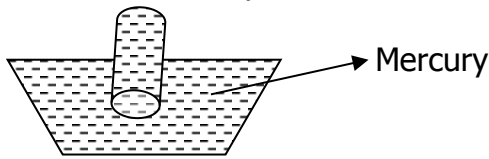


5. Wind sock –It shows the strength of wind.



6. Barometer.

It measures the air pressure



Managing water.

- Sources of water: These are the places where we get water from.
- There are two sources of water.

Natural source of water. These are God made sources of water.

- Rain is the main source.
- Rivers
- Lakes
- Oceans.
- Swamps.
- Wells
- Streams.

Artificial sources of water. These are man made sources of water.

- Tanks
- Bore holes
- Dams
- Fountains
- Spring wells

Importance's of water

- For domestic use eg cooking , bathing.
- For transport.
- For swimming.
- For generating electricity.
- For cooling machines.

- For watering crops.

Ways of maintaining or protecting water sources.

- By fencing water sources.
- By avoiding animals from drinking from water sources.
- Adding chlorine in water sources to kill germs.
- Planting grass around water sources.
- Putting laws. (rules).

Water harvesting.

The way of collecting water.

Ways of collecting water,

- By using tanks.
- By using water dams.
- By using Jerrycans.
- Tapping from the roof.
- Tapping from the trees.

Sanitation.

Sanitation is the general cleanliness of a place to promote public health

Importance of sanitation.

- The spread of diseases and germs is reduced.
- Little money is spent on treating people.
- Vectors are controlled.
- People can live longer.

Ways of promoting proper sanitation.

- Having a latrine or toilet.
- Having rubbish pits.
- Slashing around our homes.
- Draining way all stagnant water.
- Sweeping our compound.
- Having a clean plate stand.
- Living in a well ventilated house
- Keeping water sources clean.

Things used to keep proper sanitation.

- Broom
- Soap
- Water
- Dustbin
- Hoes
- Brush
- Rag
- Rake
- Wheel barrows

Qualities of a good house.

It should have.

- Windows.
- Door
- Strong roof
- Ventilators
- Verander.

Qualities of good home

It should have.

- Kitchen
- Bathroom
- Store
- Latrine / toilet
- Rubbish pit.
- A well ventilated house
- Plate stand.

Germ

Terms are living things which cause diseases

Types of germs.