

# GRADE 4 TERM 1-3 COMPLETE NOTES

## SCIENCE AND TECHNOLOGY

### PLANTS

#### CHARACTERISTICS OF PLANTS

- Living and non living things in our environments
- The term living thing refers to **things that are now or once were alive**
- A **living thing** pertains to any organism or a life form that possesses or shows the characteristics of life or being alive
- A non-living thing is anything that was never alive.

Living Things	Non-Living Things
<ul style="list-style-type: none"> <li>▪ Can grow</li> <li>▪ Can move</li> <li>▪ Can feel</li> <li>▪ Can breathe</li> <li>▪ Can reproduce</li> <li>▪ Need water and food to survive</li> <li>▪ Die</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cannot grow</li> <li>▪ Cannot move</li> <li>▪ Cannot feel</li> <li>▪ Cannot breathe</li> <li>▪ Cannot reproduce</li> <li>▪ Neither eats nor drinks</li> <li>▪ Don't die, either break or get damaged</li> </ul>

#### Identifying things that are living and non living in our environment

Things that are living	Things that are non living
1.	
2.	
3.	
4.	
5.	
6.	
7.	



## **Characteristics of plants as living things**

Pupil's activity

Page 2-3

## **Characteristics of plants in our environment**

- They
  1. Respire
  2. Move
  3. Respond to stimuli
  4. Reproduce
  5. Grow
  6. Feed
  7. Remove waste
  - 8.

Pupil's activity

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## **Handling plants**

### **Demonstrating responsibility while handling plants**

Pupil's activity

Page 5-6

- Wear dust coat/ overall/gumboots/dust mask when in the garden or shamba
- Wear protective goggles to protect your eyes
- Wear gloves to protect your hands
- Observe safety when walking in the shamba or forest
- Wash hands after handling plants

## **Growing plants found in our locality**

### **Project**

Planting seeds

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## **ANIMALS**

### **CHARACTERISTICS OF ANIMALS**

#### **Characteristics of animals as living things**

Identifying characteristics of animals as living things

Pupil's activity

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#### **Characteristics of animals in our environment**

Pupil's activity

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- They
  1. Feed
  2. Grow
  3. Breathe
  4. Remove waste
  5. Move
  6. Die
  7. Reproduce
  - 8.

#### **Vertebrates and invertebrates**

Animals are classified into 2 main groups that is:-

1. Vertebrates.
2. Invertebrates.

#### **Vertebrates**

Animals with a backbone

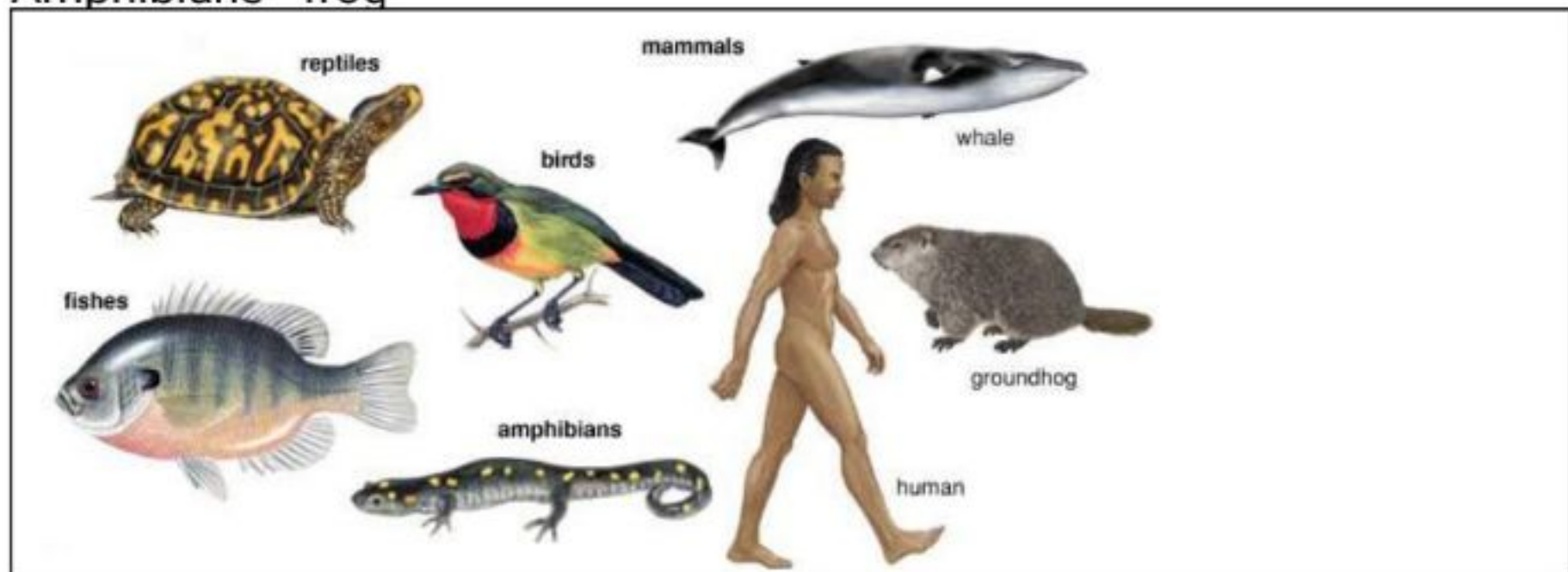
Mammals – man

Birds – chicken

Fishes – tilapia

Reptiles – crocodile

Amphibians - frog



## **Invertebrate**

Are animals without backbone

Examples

1. Bees
2. Flies
3. Grasshopper
4. Earthworm
5. Lobster
6. Snail
7. Millipede
8. Fleas



## **Distinguishing between vertebrates and invertebrate**

Pupil's activity

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## **Handling animals**

Demonstrating responsibility while handling animals



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Pupil's activity

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- Always observe safety and care while handling animals
- Wash your hands after handling animals

Project

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## **Human body**

### **The digestive system**

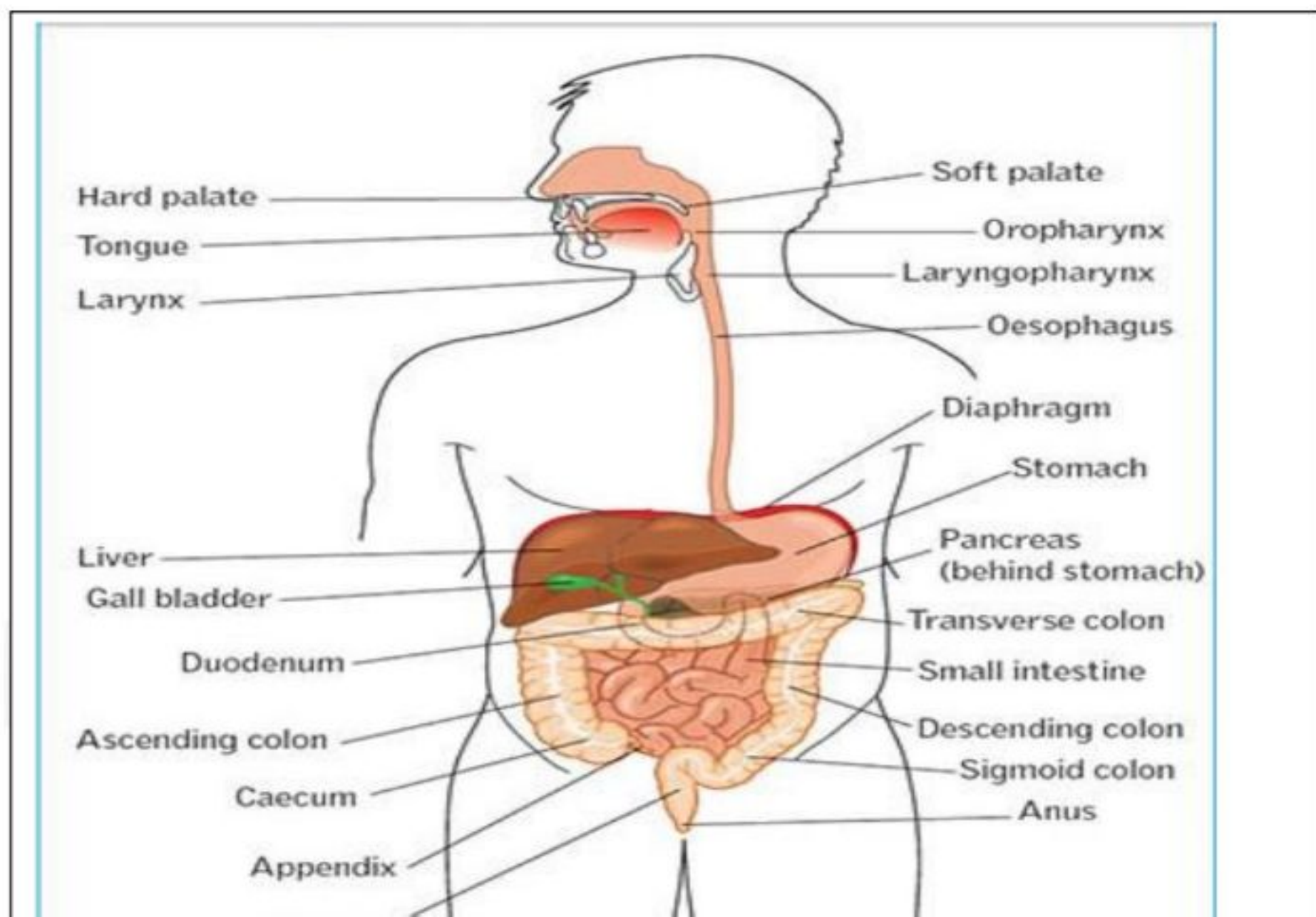
#### **DIGESTION:-**

- It is the process of breaking down food into small particles that can be absorbed into the bloodstream.
- Digestion starts in the mouth and ends in the small intestine.
- Digestion of food takes place in the alimentary canal / gut.
- The gut is a long tube that runs from the mouth to the anus.

#### **Parts of the human digestive system**

- Mouth.
- Oesophagus (gullet).
- Stomach.
- Duodenum.
- Small intestine. (Ileum)
- Large intestines (colon)
- Rectum.
- Anus
- Liver.
- Pancreas.

#### **Identifying parts of the human digestive system**



## **Functions of the different parts of the digestive system**

### **MOUTH**

- It is where digestion starts.
- Starch is the food that is digested in the mouth.
- Saliva is the first digestive juice produced in the mouth.
- Saliva produced by salivary glands digests starch.
- Teeth break down food into small pieces by chewing.
- Tongue rolls down food into small round balls called boluses and pushes them to the back of the mouth for swallowing.
- Saliva makes food moist, slippery and easy to swallow.

### **OESOPHAGUS**

- Also called gullet or food pipe.
- Connects the mouth and the stomach.
- Food moves in a wave-like manner down to the stomach.
- The movement of the food from the mouth to the stomach is called peristalsis.

### **STOMACH**

- Food stays in the stomach for 3 – 4 hours.
  - Rhythmic movements of stomach walls mix food with digestive juices to form chyme.
  - Proteins are digested in the stomach.
  - Two digestive juices produced in the stomach are:
    - a) Gastric juice – To digest proteins
    - b) Hydrochloric acid – To kill germs
- Absorption of glucose, alcohol, drugs and medicines begins in the stomach.

### **Duodenum**

- Upper part of the small intestine
- Fats and oils are digested
- Pancreatic juice, insulin and bile juice are found in the duodenum

**Liver** – Produces bile juice that is stored in the gall bladder.





**Pancreas** – Produces pancreatic juice and insulin.  
Insulin controls the amount of sugar in the body.

### **Small intestine**

- Also called ileum
  - Walls of the small intestine produce the last digestive juice called intestinal juice.
  - Intestinal juice completes digestion
  - Absorption of digested food takes place in the small intestine with the help of finger-like projections called villi.
- Adaptation of ileum to absorb a lot of food
- Very long about 7m
  - Heavily coiled to slow down the movement of food

### **Large intestine**

Water and mineral salts are absorbed in the large intestine also known as the colon

### **Appendix**

This stores impurities in the food e.g. stones, soil, metals, plastics, etc

### **Rectum**

This stores the undigested solid waste in form of faeces before being released outside the body through the anus.

*N.B. Egestion is the process of removing the solid waste outside the body.*

### *Modelling the human digestive system*

#### *Project*

#### *Page 17*

## **Taking care of teeth**

### **CARE OF TEETH**

In order to maintain strong and healthy teeth we should:

- a) Brush teeth regularly and properly i.e. downward and upward motion with toothbrush and toothpastes or chewed twig with warm salty water.
- b) Avoid sugary foods (sweet)
- c) Do not use your teeth to break hard things.
- d) Eat foods such as vegetables and fruits
- e) Visiting a dentist regularly for check-ups
- f) Avoid using sharp objects like toothpicks to remove food particles. Instead use a dental floss.
- g) Chewing hard foods e.g. nuts, carrots, sugarcane, cassava, to make them strong

### **Demonstrating curiosity about taking care of the teeth**

Pupil's activity

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## **Demonstrating the use and care of the different types of teeth**

Pupil's activity

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## **Modelling different types of teeth**

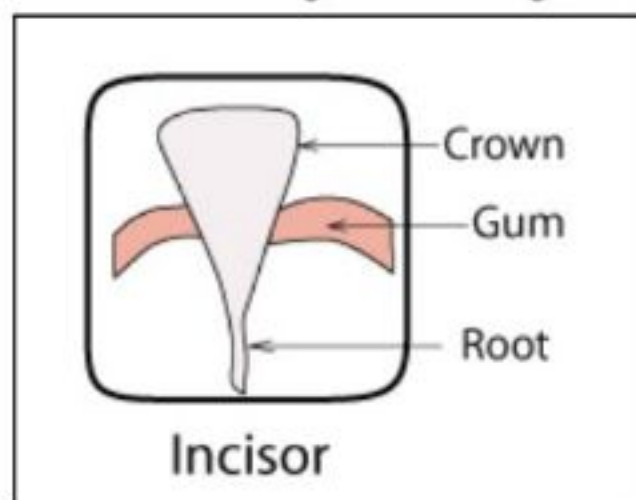
### **TEETH**

There are four types of teeth:

- a) Incisors
- b) Canines
- c) Premolars
- d) Molars

### **INCISORS**

- Found in the front
- They are chisel-like.
- Eight in number i.e. four in the upper jaw and four in the lower jaw
- Have one root
- Used for biting and cutting



### **CANINES**

- They are sharp and pointed
- Four in number i.e. two in the lower jaw and two in the upper jaw
- Have one root



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- Avoid opening soda bottles using teeth
- Avoid picking teeth with a toothpick
- Avoid eating sugary foods and sweets
- Eat hard foods and drink milk
- Brush your teeth after every meal

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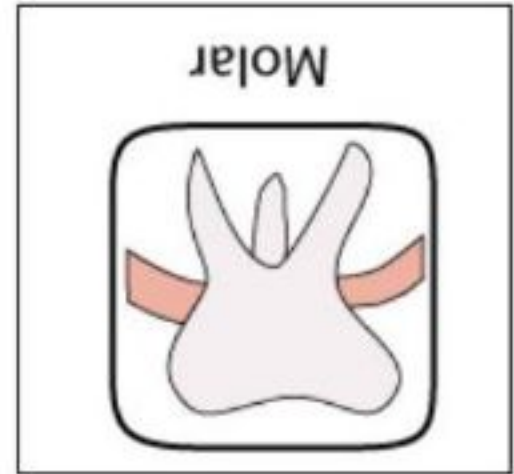
Pupil's activity

### Making poster on right use of teeth

Page 19-20

Pupil's activity

Modelling different types of teeth



- Used for grinding food
- Have three roots

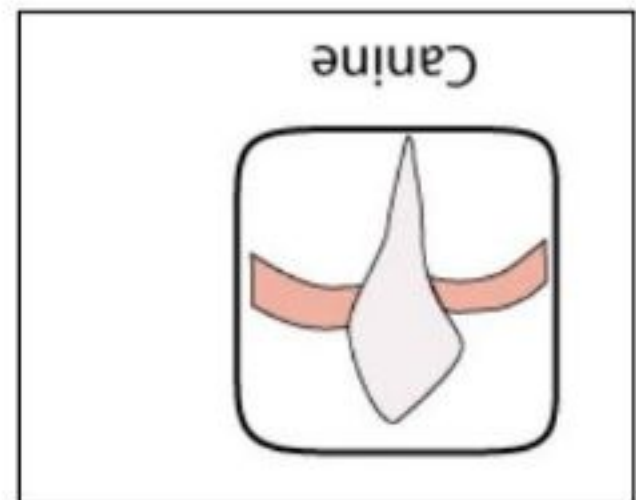
• Twelve in number i.e. four in the upper jaw and six in the lower jaw



Premolar

- They are broad with ridges on top
- Eight in number i.e. four in the upper jaw and four in the lower jaw
- Used for crushing and chewing food
- Have two roots

### PREMOLARS



Canine

- Used for tearing and gripping

### MOLARS

□ Broad with ridges

• Have three roots

• Used for grinding food

## **AIR POLLUTION**

### **Meaning of pollution and air pollution**

To pollute is to contaminate, make dirty or impure

## **AIR POLLUTION**

This is the act of contaminating the air with toxic substances.

### **Stating the meaning of air pollution and air pollution**

Pupil's activity

Page 22

### **investigating the meaning of air pollution and air pollution**

Pupil's activity

Page 22

## **Air pollutants in our environment**

### **Identifying air pollutants in our environment**

1. Smoking cigarettes
2. Gases from vehicle exhausts.
3. Burning tyres and plastic materials
4. Spraying farm chemicals
5. Aerosol sprays
6. Industrial waste gases e.g. sulphur dioxide

## **Clean and polluted air in our environment**



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### Distinguishing clean and polluted air in our environment

	CLEAN	POLLUTED
Field		
Around the toilets		
Kitchen		
Classroom		
Around shops		
Around the market		
Around our home		

### **Effects of air pollution on living things**

1. Smoking cigarettes

Carbon dioxide, tar and nicotine cause respiratory diseases.

2. Gases from vehicle exhausts.

Such gases contain harmful chemicals such as sulphur and lead

3. Burning tyres and plastic materials

When they burn, they produce toxic gases

4. Spraying farm chemicals

Some particles which are harmful to living things remain suspended in the air

5. Aerosol sprays – they interfere with the ozone layer.

6. Industrial waste gases e.g. sulphur dioxide

7. Poor growth of plants

8. Poor visibility

9. eye irritation

### **Effects of air pollution on plants**

--- Dust particles, soot and smoke block stomata.

--- It affects photosynthesis

--- It interferes with transpiration and gases exchange.

--- Acid rain damages the leaves and roots of the plants.

--- Acid rain interferes with living organisms in the soil.

--- Decomposition of animals and plant materials is affected.

### **Effects of air pollution on animals**

--- It affects the respiratory system resulting in sneezing, coughing and bronchitis.

--- Acid rain may kill aquatic animals

--- Polluted air may lead to lung cancer.

### **Effects of air pollution on non-living things**

Acid rains eat away (corrode) some metals e.g. iron sheets and limestone (marble)

Smoke and smog cause poor visibility, increasing accidents on the roads.

Dust contaminates our environment

### **Observing, identifying and recording effects of air pollution on living things in our environment**

Pupil's activity

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## **Ways of reducing air pollution**

### **Identifying ways of reducing air pollution**

- a. Not burning tyres and plastic materials that emit toxic substances.
- b. Vehicles should have well-maintained engines.
- c. Reducing the use of farm chemicals e.g. pesticides and use biological and mechanical methods of control.
- d. Avoid the use of harmful aerosol sprays which deplete the ozone layer. Use ozone friendly chemicals.
- e. On-site treatment e.g. industrial gases
- f. Ban cigarette smoking in public.
  - Using ventilation improved pit latrines, sprinkling water on dusty wastes, sprinkling water on dusty grounds, properly disposing wastes, sprinkling ash in pit are some of the practices that can reduce air pollution.

## **An air pollution detector**

### **Project: making a simple air pollution detector**

#### **Pupil's activity**

**Page 28**

#### **Materials**

- 1. A stick
- 2. Petroleum jelly
- 3. A clean white piece of cloth

## **A functional dust mask**

### **Project: Making a functional dust mask materials using locally available materials**

#### **Pupil's activity**

**Page 29**

#### **Materials**

- 1. An old clean piece of cloth
- 2. Shoe laces
- 3. A pair of scissors





## **WATER POLLUTION**

1. Water pollution is making water impure or contaminating it.
2. Polluted water is not safe for drinking by animals and human beings or for watering crops.

### **Stating the meaning of water pollution**

Pupil's activity

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### **Water pollutants in our environment**

#### **Identifying water pollutants in our environment**

##### **a) Human and animal waste.**

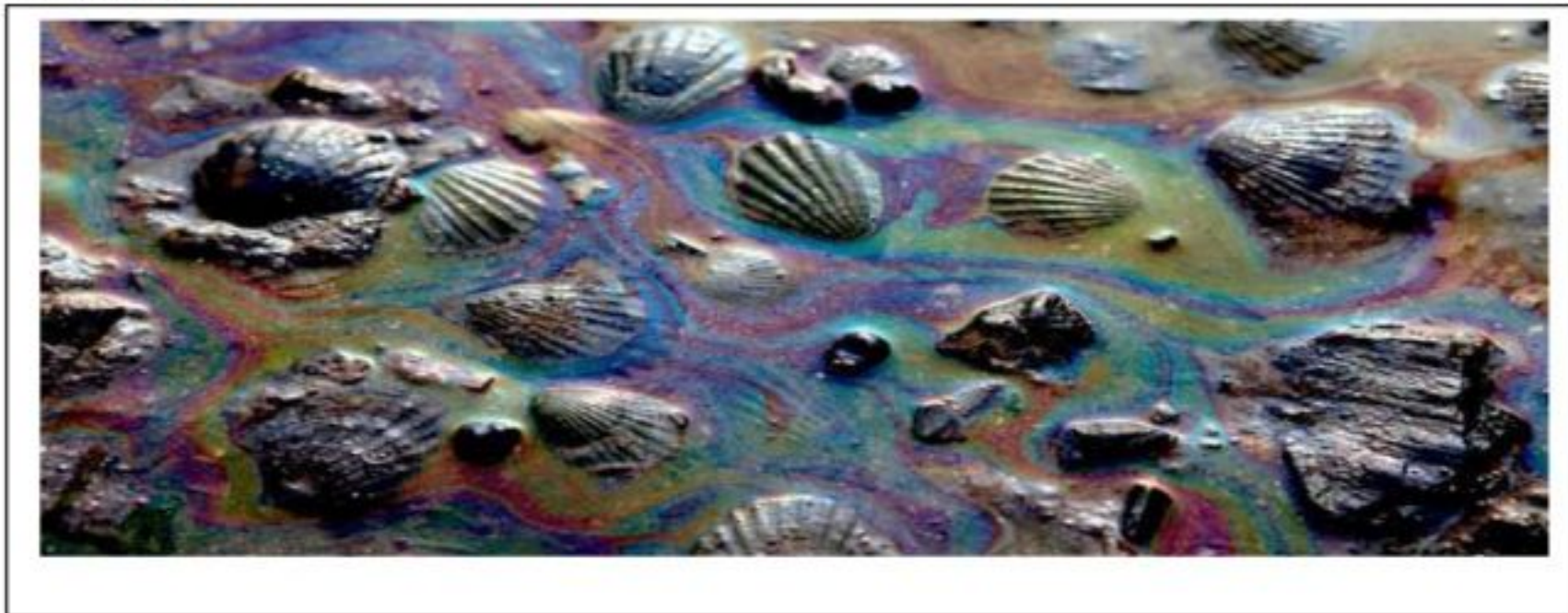
When human beings and animals pass their waste into water sources, many bacteria and viruses grow and pollute the water





### **b) Oil spillage**

Oil tankers transporting crude oil may have accidents in seas or lake-shores and spill oil into the water.



### **c) Industrial waste**

Factories and Industries built along sources of water may release untreated waste material into water thus polluting it. This makes it unfit for use.

### **d) Uncontrolled use of farm chemicals**

Fertilizers and pesticides used in excess by farmers cause water pollution. The chemicals in pesticides and fertilizers are harmful.

### **e) Floods**

When it rains, water becomes muddy and has solid impurities.

### **f) Acid Rain**

Industries emit carbon dioxide and sulphur dioxide in large amounts. When it rains these gases dissolve in water forming acid rain. Acid rain destroys iron sheets and kills water animals as well as destroying plants.

- Common water pollutants are soil and wastes. These include slaughter houses waste, domestic sewage, factory and industrial wastes, dead rotten plants and animals

## **Identifying water pollutants in our environment**

Pupil's activity

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### **Clean and polluted water**



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Distinguishing between clean and polluted water  
Pupils activity page 32-33

### **Identifying clean and polluted water in our environment**

Pupil's activity  
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### **Effects of water pollution on living things**

Identifying effects of water pollution in our environment

#### **EFFECTS OF WATER POLLUTION ON PLANTS**

1. Oil spills block plant roots affecting the absorption rate of roots.
2. Water that contains excessive fertilizers, pesticides or herbicides can cause plants to dry.
3. Oil spills also prevent sunlight from reaching water plants, hence they cannot make their own food.

#### **EFFECTS OF WATER POLLUTION ON ANIMALS**

1. Chemicals in polluted water may be poisonous to animals and can lead to death.
2. Oil spills affect fish and other aquatic animals leading to death.
3. Polluted water leads to water-borne diseases because it carries germs and internal parasites.

#### **EFFECTS OF WATER POLLUTION ON SOIL**

1. Acid rain makes the soil acidic, thus it cannot support the growth of plants.
2. Some chemicals in water affect the fertility of the soil making it unfertile.
3. Water pollution leads to poor aeration of the soil. This may lead to the death of soil, animals and plants.

### **Importance of clean water in our environment**

Appreciating the importance of clean water in our environment  
Pupil's activity  
Page 34

### **Ways of reducing water pollution**

#### **Identifying ways of reducing water pollution**

1. Practising proper hygiene
2. Practising farming methods that reduce soil erosion
3. Draw water for animals instead of taking them to water sources.
4. Avoid dumping of industrial waste into water sources.
5. Clearing accidental oil spills as soon as they happen.

#### **Observing safety precautions to take when working in water polluted environment**

- Wearing boots, dusts masks and gloves when working in a water polluted environment should be encouraged.

Pupil's activity  
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### **A functional water filter**



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Project: making a functional water filter using locally available materials

**Materials**

1. Two litre plastic bottle
2. Sand
3. Charcoal
4. A string or rubber band
5. Three pieces of cloth

**Procedure**

Pupil's activity

Page 36-37

**DIGITAL DEVICES**

**Meaning of a digital devices**

**Stating the meaning of digital and a device**

Pupil's activity

Page 39-40

A digital device is an equipment or tool that can process words, figures, sounds and images.  
Examples – smart phones, tablets, laptops, televisions

**Digital devices in our locality**

**Identifying digital devices in our locality**



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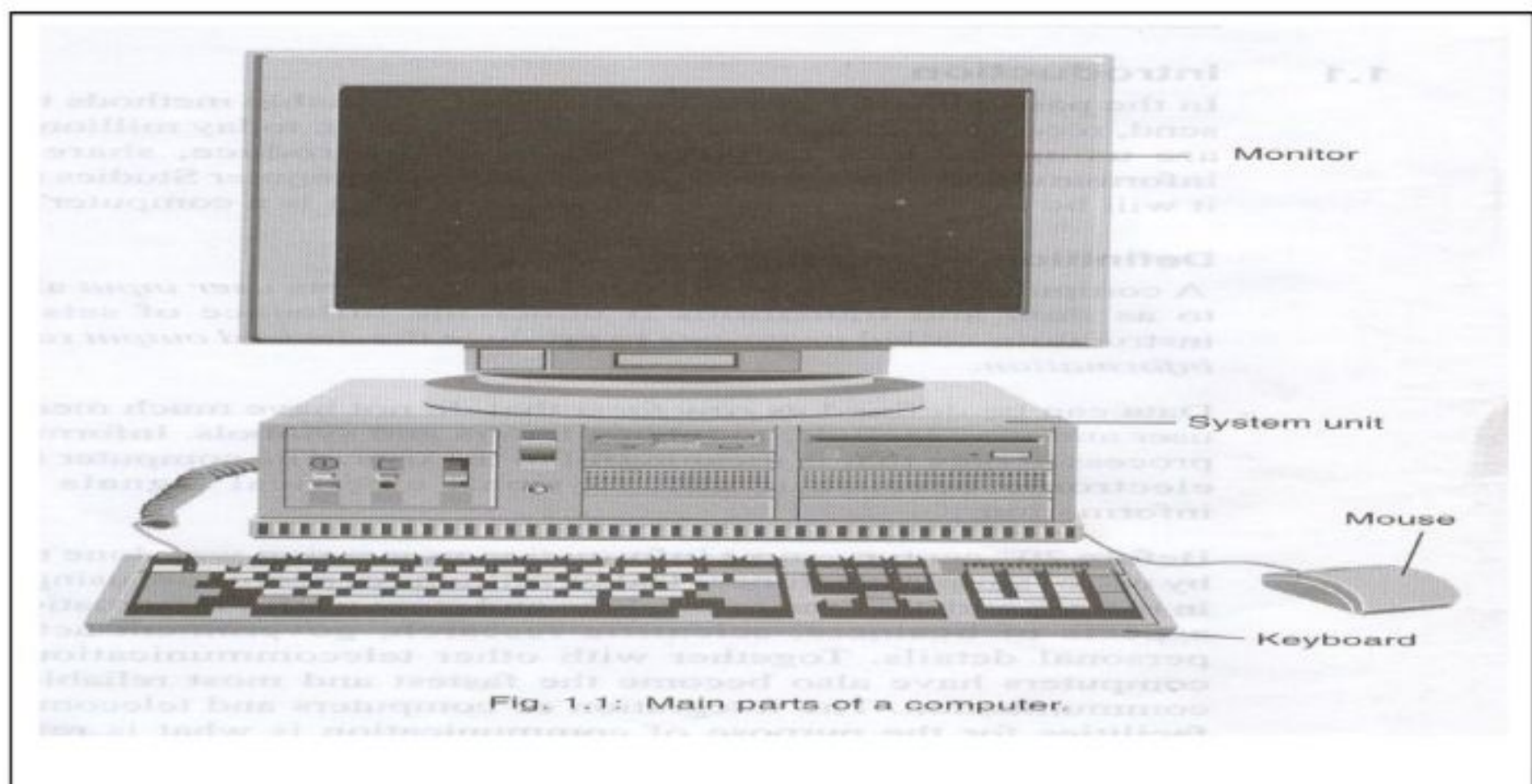




1. Computer
2. Laptop
3. Tablet
4. Smart phone
5. Smart televisions
6. Radios
7. Digital cameras
8. Digital video recorders
- 9.
- 10.

### **Parts of digital devices in our locality**

#### **Identifying different parts of digital devices in our locality**



### **Functions of the various parts of a digital device**

#### **Identifying functions of the various parts of a digital device**

#### **1. The keyboard**

It is the most common device that enables the user to enter data and instructions in the computer by pressing its keys.

#### **2. The mouse**



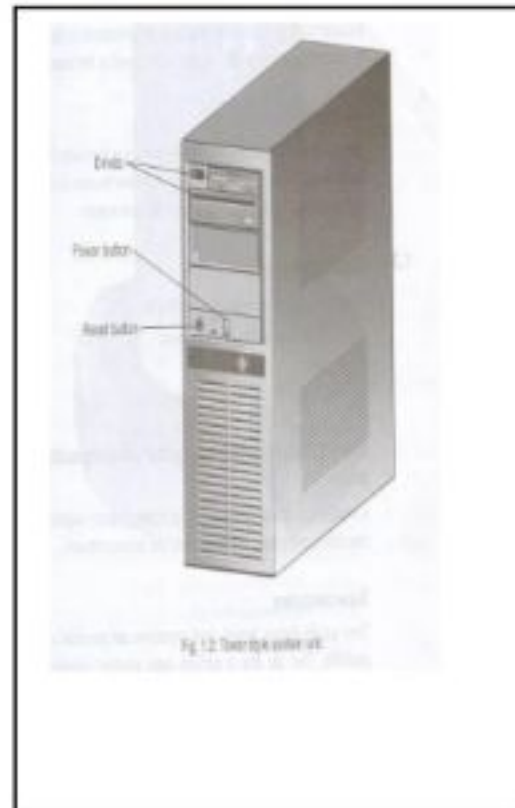
It is a device that enables the user to issue instructions to the computer. By controlling a special mouse pointer displayed on the screen.

### 3. The monitor

The computer monitor or simply the screen is a television like device used for displaying output. It is called a monitor because it enables the user to monitor or see what is going on in the computer.

### 4. The system unit

This is the part that houses *the brain* of the computer called the *central processing unit (CPU)*. The system unit also houses other devices called *drives*. Drives are used to store, record and read data.



### 5. Cables

Connects devices to its hardware

### Connecting parts of a digital device

Demonstrating proper connection of parts of a computer

Pupil's activity

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Connecting and operating digital device at a community function

Pupil's activity

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### Proper use of digital devices

Demonstrating proper use of digital devices in everyday life

Pupil's activity

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- Proper use of digital devices include
  1. Taking photographs
  2. Recording videos and audios



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3. Playing games
- 4.

Using a digital device to type message, take pictures, videos and audios  
Pupil's activity  
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### **External parts of digital devices**

Modelling external parts of a mobile phone from locally available materials  
Project  
Page 45-46

## **CODING**

### **Meaning of Coding**

Stating the meaning of coding



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Pupil's activity  
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Coding is a group of letters, words, symbols or pattern that are used to identify or group things

### **Coded patterns**

#### **Identifying coded patterns**

Pupil's activity  
Page 48-49

Common coded patterns in everyday life include

- Traffic signs
- Icons on digital devices,
- Arrangement of shapes in a football
- Tennis balls
- Arrangement of leaves
- Patterns of making nests

### **Simple puzzle games**

Playing simple puzzle games  
Pupil's activity  
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## **STATE OF MATTER**

### **The three states of matter**



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Identifying the three states of matter in our environment

Pupil's activity

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- Matter is anything that has weight and occupies space.
- Matter exists in three forms:-
  - Solids
  - liquids and
  - gases

### **Characteristics of the three states of matter**

#### **A. Gases**

Particles are very loosely attached to each other.

The particles move freely in all directions. We cannot hold or touch gases

Investigating characteristics of gases

Pupil's activity

Page 53-52

Things that appear empty have gas

1. Gases have no fixed shape
2. Gases have no fixed volume
3. Gases take up the shape of the container they are placed in
4. Gases occupy space and have weight

#### **B. LIQUIDS**

Particles are slightly loose and can move about.

They pour and can only be carried using a container.

Investigating characteristics of gases

Pupil's activity

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1. Liquids take the shape of the container they are put in
2. Liquids do not have a fixed a fixed shape
3. Liquids flow
4. Liquids have a fixed volume

#### **C. SOLIDS**

Things or objects we can hold with our hands.

Particles are tightly packed

Investigating characteristics of gases

Pupil's activity

Page 55-56



1. Solids cannot be compressed
2. Solids do not flow
3. Solids have a fixed shape
4. Solids have a fixed volume

### **Three states of matter in our environment**

Categorising substances in our environment into three states of matter

Pupil's activity

Page 57-58

SOLIDS	LIQUIDS	GASES

### **Observing safety when working with different materials**

Pupil's activity

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### **Categorising different materials according to their states**

Pupil's activity

Page 58-59





## **PROPERTIES OF MATTER**

### **Floating and sinking**

**Floating** is when objects remain on the surface of water

Those materials which float on water are **floaters**.

**Sinking** is when an object goes to the bottom of the water surface

Those materials which sink in water are called **sinkers**.

### **Floating and sinking using different materials**

Demonstrating sinking and floating using different materials

Pupil's activity

Page 60

Material name	Remains on the water surface	Goes on the bottom of the container
Wood	✓	
Stone		✓
Bottle		

### **Objects that can float and those that can sink**

Identifying objects that float and those that sink in water

Pupil's activity

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### **Factors affecting floating and sinking in water**

#### **a) Types of the material**

- Objects made of metal sink while those made of wood, rubber and plastic float.

Identifying how the type of material affects floating and sinking

Pupil's activity

Page 62-63

#### **b) Shape**

-A bottle top which is not crushed floats on water.

- When the same bottle top is crushed, it sinks.

The crushed bottle top sinks because of the shape.

A ship made of iron and steel floats because of the shape.

- When the volume of an object increases, its density decreases, making it easier to float.

Identifying how a shape of a material affects floating and sinking

Pupil's activity



**c) Weight of the material**

- Materials which weigh more sink in water.
- When pebbles are added on a bottle top, it sinks because of increased weight..
- The size of material does not affect sinking and floating.

**Making floaters using locally available materials**

Floaters can be made to sink and sinkers can be made to float

Making floaters to sink

Pupil's activity

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Making sinkers to float

Pupil's activity

Page 63-64

Making a floater from locally available materials

Pupil's activity

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Floaters as life savers

Appreciating the uses of floaters as life savers

Pupil's activity

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## **FORCE**

### **Force and its effects**

#### **Meaning of force**

##### **Stating the meaning of the term force**

Pupil's activity

Page 69-70

- ✓ Force is a push
- ✓ A pull is a force
- ✓ Force is a push or a pull that is applied on a body or object

#### **Effects of force on an object**

Demonstrating the effects of force on an object

Pupil's activity

Page 70

Force can cause the following:

- a) Start motion i.e. make objects move
- b) Speed up motion
- c) Slow down motion
- d) Stop motion

#### **Effects of force in everyday life**

Observe the effects of force on objects

Pupil's activity

Page 71-72

- Pushing a wheelbarrow full of sand
- Kicking a ball – you push the ball using your leg
- In a boat, the sail is pushed by the wind for the boat to move
- Riding a bicycle, the cyclist pushes the pedals in order to make it move
- Using a catapult to pull a stone and then release it
- Wind pushing propellers of a windmill to start motion

Force can change of direction of movement

Force can change shape of an object

Force can start and stop movement of an object



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**Force in everyday life**

Appreciating effects of force in everyday life

Pupil's activity

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A force of push moves object away

A force of pull moves an object towards you

**Safety precautions when dealing with force**

Observing safety precautions when dealing with force

Pupil's activity

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Protect your body when dealing with force by

1. Wearing gloves to protect hands
2. Wearing a headgear to protect the head
3. Wearing leg guards to protect the legs





## **SOUND ENERGY**

### **Properties of sound**

Demonstrating that sound travels in all direction

Pupil's activity

Page 75-76

- Sounds travels in all directions

### **Sound reflection**

Demonstrating that sound can be reflected

Pupil's activity

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- Sound can be reflected.
- Reflected sound is called an echo

### **Sound producing instruments**

Making a shaker using locally available materials

Pupil's activity

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### **Materials to be used to make a shaker**

1. Y shaped stick
2. Wire
3. Bottle tops
4. Hammer
5. Nail

### **How to make a shaker**

1. Pierce a hole through the two opposite sides of the stick
2. Burn the bottle tops to remove the rubber
3. Flatten the bottle tops using a hammer
4. Using a nail, punch holes through the bottle tops.
5. Pull the wire through the bottle tops to arrange them on it
6. Pull the wire through the holes at the ends of the stick and tie it firmly
7. You can play the instrument by shaking as you sing



## **LIGHT ENERGY**

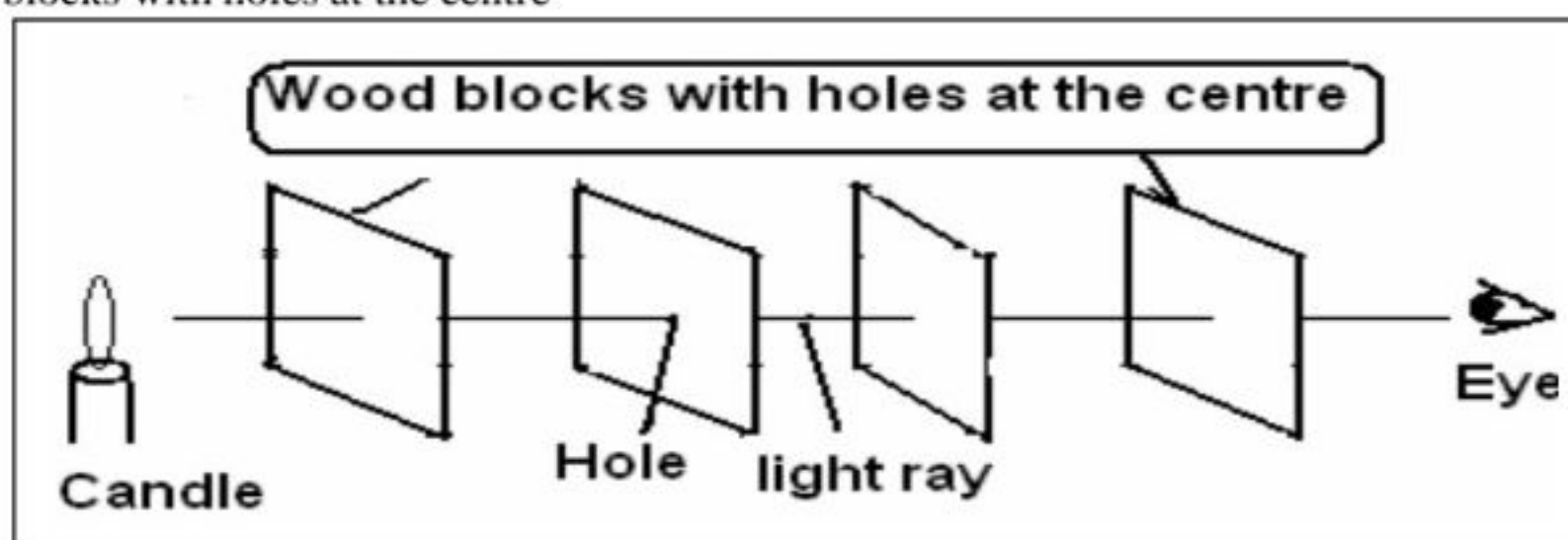
### **Light travels in a straight line**

Demonstrating that light travels in a straight line

Pupil's activity

Page 79-80

One of the properties of light is travelling in a straight line. But how can we know light travels in a straight line. This can be demonstrated using a set of simple apparatus like a candle and wood blocks with holes at the centre



### **Transmission of light through different materials**

Demonstrating transmission of light through different materials

Pupil's activity

Page 81-82

### **Transparent, translucent and opaque materials**

Classifying materials as opaque, translucent or transparent

- Various materials are classified under three categories depending on the extent to which light passes through them.

Material	Description	Example
Transparent	Light passes through some materials	Glass
Translucent	These allow only a small amount of light to pass	Glass used in toilet and shower rooms





	through	
Opaque	materials which do not allow any amount of light to pass through	Wood and stone

Project  
Making a projector screen of still images  
Page 83-84

## **HEAT ENERGY**

### **Conduction of heat**

Demonstrating conduction of heat  
Pupil's activity  
Page 86-87

- Conduction is the transfer of heat through solids

Investigating conduction of heat  
Pupil's activity  
Page 87

### **Poor and good conductors of heat**

Identifying poor and good conductors of heat  
Pupil's activity  
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- Materials that conduct heat faster than others are called **good conductors**
- Materials that conduct heat slowly are called **poor conductors**
- Materials that do not conduct heat at all are called **insulators**

### **Uses of poor and good conductors of heat**

Identifying uses of good conductors of heat  
Pupil's activity  
Page 89

- Good conductors are used to make
  1. Utensils like cooking pans, ironing boxes and electrical heaters
- Poor conductors are used to make
  1. Sweaters, pullovers and jackets



## 2. Making handles of cooking utensils such as kettles

Observing and recording the uses of good and poor conductors of heat

Good conductors	Poor conductors	Use of the conductor

Project

Making oven gloves and fireless cooker from locally available materials

Page 91-95

## MACHINES

### Levers

#### Levers as machines

Identifying the levers as a machine used in everyday life

Pupil's activity

Page 96-97

- A lever is a simple machine or device that is used to make work easier

#### Levers used in our locality

Identifying levers used in our locality

Pupil's activity

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1. Claw hammer
2. Beam balance
3. Crow bar
4. Pair of scissors
5. Lid opener
6. Pliers
7. Wheelbarrow
8. Nut cracker
9. Bottle opener
10. Door hinges
11. Fishing rod
12. Pair of tongs
13. Jembe



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## 14. Broom

### Parts of a lever

Identifying parts of a lever

Pupil's activity

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1. Fulcrum – It is the turning point in a lever.  
- Also called pivot
2. Effort – This is the force applied to the lever to overcome the load force.
3. Load – This is the force to be lifted or overcome in a lever so that work is done.

### Making a see saw

Making and using a see saw

Pupil's activity

Page 99-100

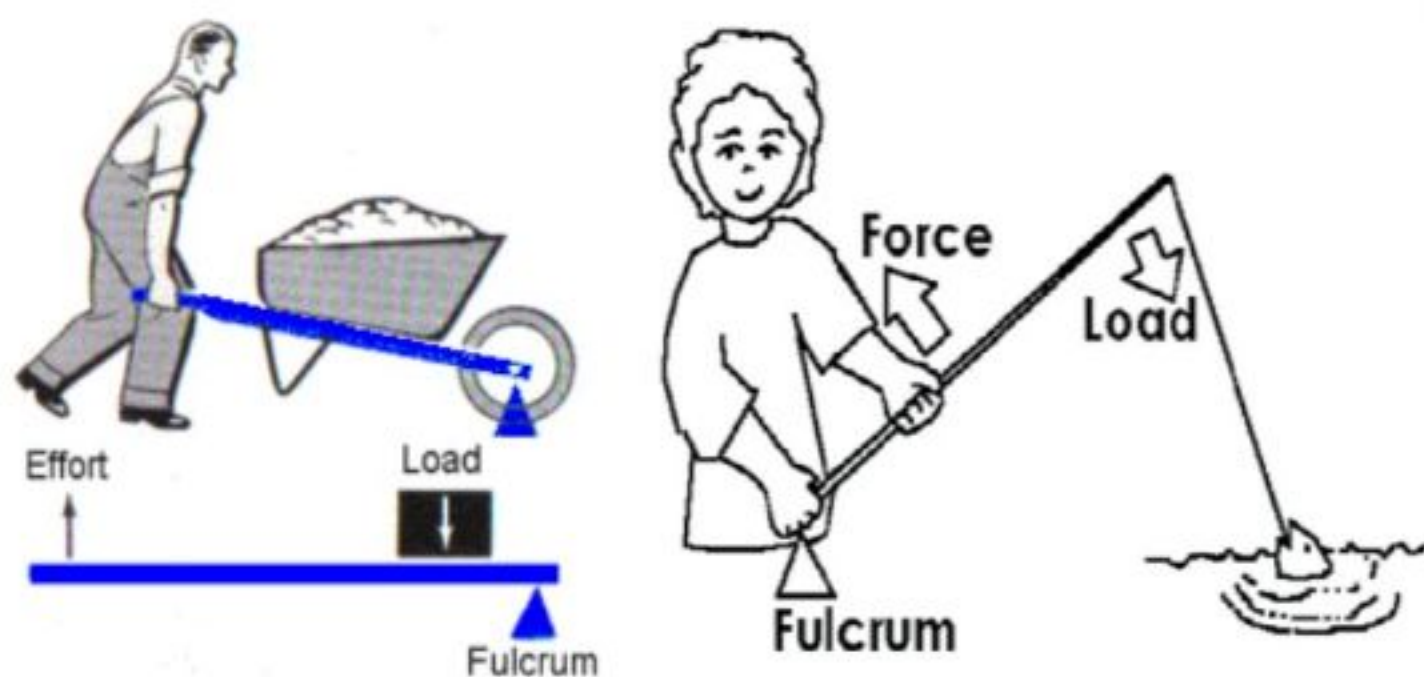
### Levers that make work easier

Using levers to make work easier

Pupil's page

100-101





## **WEATHER AND SKY**

### **Weather conditions**

### **Bodies in the sky during the day and night**

Identifying bodies in the sky during the day and at night

Pupil's activity

Page 104-105

- Weather is the daily atmosphere of a place at a particular time
- Bodies observed in the sky during the day include
  1. Clouds
  2. Sun
  3. Moon
- Bodies observed in the sky at night include
  1. Stars
  2. Moon
  3. Clouds

**Types of clouds in the sky during the day**





Recording types of clouds in the sky during the day  
Pupil's page  
105-106

## CLOUDS

Clouds are named in the latin language

Clouds are grouped according to their appearance, shape and height

The different types of clouds are

### 1. Nimbus clouds



- They are found low in the sky
- They are dark or grey in colour
- They are heavy, mountainous clouds.
- They are rain-laden clouds
- They bring heavy rains
- They are irregular in shape
- they cover the whole sky

### 2. Cirrus clouds



They are thin with feather like appearance

They are found high in the sky

They mostly appear during dry weather conditions



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### 3. Cumulus clouds



- They are thick, white, feathery clouds
- They look like huge heaps of cotton wool
- They have a flat base
- They are common in fine weather
- They are found high in the sky

### 4. Stratus clouds



- They appear like layers on top of each other.
- They are horizontal and are seen over high grounds
- Some resemble animal features like snake when observed

Recording types of clouds in the sky during the day

Pupil's activity

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Activities done during different weather conditions

Identifying activities done during different weather conditions

Pupil's activity

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- Crops need rain to grow
- We require dry conditions so as to harvest crops
- Windy conditions make flying of kites enjoyable
- Winnowing cannot be done on a rainy day
- We dry crops during the dry seasons

### Importance of weather in the locality

Pupil's activity

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### A weather clock

Project

Making a weather clock

Page 109-110

### Weather chart

Project

Making a weather chart

Page 111-112

Our weather chart

Time of the day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Morning							
Afternoon							
Evening							



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