



South Sudan

Primary Science

1

Primary Science has been written and developed by Ministry of General Education and Instruction, Government of South Sudan in conjunction with Subjects experts. This course book provides a fun and practical approach to the subject of Science, and at the same time imparting life long skills to the pupils.

The book comprehensively covers the Primary 1 syllabus as developed by **Ministry of General Education and Instruction.**

Each year comprises of a **Pupil's Book** and **teacher's Guide.**

The Pupil's Books provide:

- Full coverage of the national syllabus.
- A strong grounding in the basics of Science.
- Clear presentation and explanation of learning points.
- A wide variety of practice exercises, often showing how Science can be applied to real-life situations.
- It provides opportunities for collaboration through group work activities.
- Stimulating illustrations.



All the courses in this primary series were developed by the Ministry of General Education and Instruction, Republic of South Sudan. The books have been designed to meet the primary school syllabus, and at the same time equipping the pupils with skills to fit in the modern day global society.

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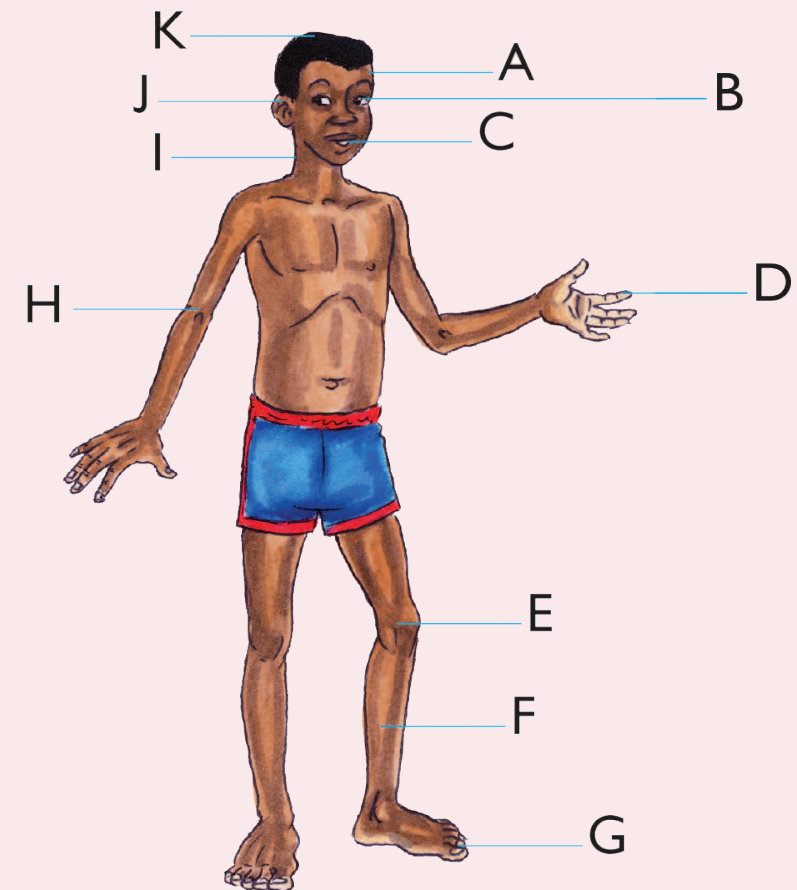
South Sudan



Primary Science

1

Pupil's Book



Primary Science Pupil's Book 1

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South Sudan

PRIMARY

1

Science

Pupil's Book 1

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FOREWORD

I am delighted to present to you this textbook, which is developed by the Ministry of General Education and Instruction based on the new South Sudan National Curriculum. The National Curriculum is a learner-centered curriculum that aims to meet the needs and aspirations of the new nation. In particular, it aims to develop (a) Good citizens; (b) successful lifelong learners; (c) creative, active and productive individuals; and (d) Environmentally responsible members of our society. This textbook, like many others, has been designed to contribute to achievement of these noble aims. It has been revised thoroughly by our Subject Panels, is deemed to be fit for the purpose and has been recommended to me for approval. Therefore, I hereby grant my approval. This textbook shall be used to facilitate learning for learners in all schools of the Republic of South Sudan, except international schools, with effect from 4th February, 2019.

I am deeply grateful to the staff of the Ministry of General Education and Instruction, especially Mr Michael Lopuke Lotyam Longolio, the Undersecretary of the Ministry, the staff of the Curriculum Development Centre, under the supervision of Mr Omot Okony Olok, the Director General for Quality Assurance and Standards, the Subject Panelists, the Curriculum Foundation (UK), under the able leadership of Dr Brian Male, for providing professional guidance throughout the process of the development of National Curriculum and school textbooks for the Republic of South Sudan since 2013. I wish to thank UNICEF South Sudan for managing the project funded by the Global Partnership in Education so well and funding the development of the National Curriculum and the new textbooks. I am equally grateful for the support provided by Mr Tony Calderbank, the former Country Director of the British Council, South Sudan; Sir Richard Arden, Senior Education Advisor of DfID, South Sudan. I thank Longhorn and Mountain Top publishers in Kenya for working closely with the Ministry, the Subject Panels, UNICEF and the Curriculum Foundation UK to write the new textbooks. Finally, I thank the former Ministers of Education, Hon. Joseph Ukel Abango and Hon. Dr John Gai Nyuot Yoh, for supporting me, in my previous role as the Undersecretary of the Ministry, to lead the Technical Committee to develop and complete the consultations on the new National Curriculum Framework by 29 November 2013.

The Ministry of General Education and Instruction, Republic of South Sudan, is most grateful to all these key stakeholders for their overwhelming support to the design and development of this historic South Sudan National Curriculum. This historic reform in South Sudan's education system is intended to benefit the people of South Sudan, especially the children and youth and the future generations. It shall enhance the quality of education in the country to promote peace, justice, liberty and prosperity for all. I urge all Teachers to put this textbook to good use.

May God bless South Sudan. May He help our Teachers to inspire, educate and transform the lives of all the children and youth of South Sudan.



Deng Deng Hoc Yai, (Hon.)

Minister of General Education and Instruction, Republic of South Sudan

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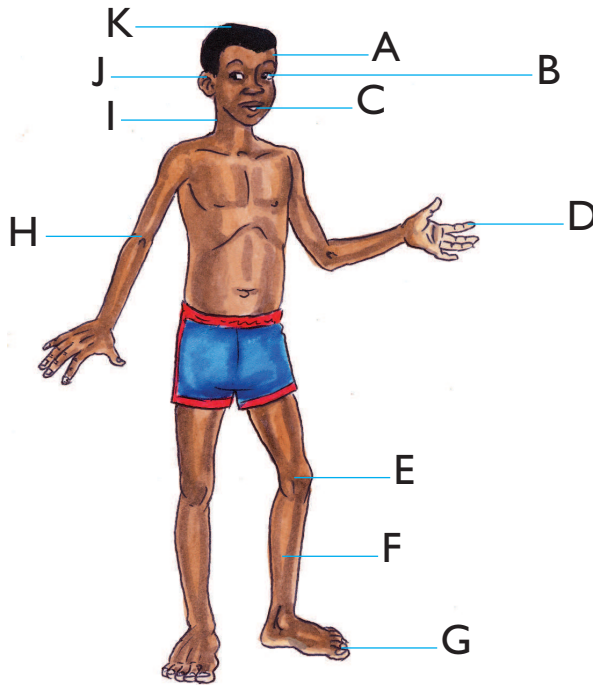
1.1 Parts of the human body



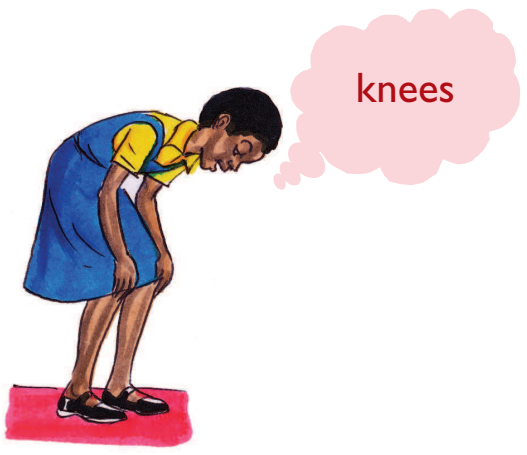
Activity 1.1

In pairs

- 1) Name the parts of the body shown below.



2) Play a game of naming the parts of the human body.





eyes



ears

nose



mouth



FUN CORNER



Song

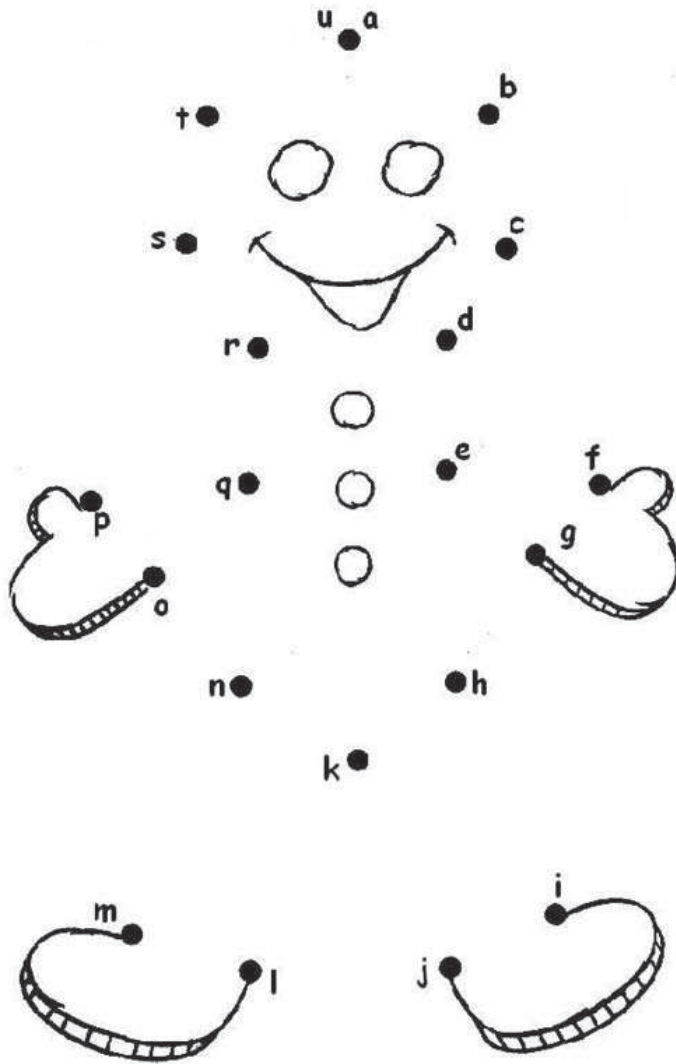
♪ Head, shoulders, knees and toes, knees and toes, knees and toes. Head, shoulders knees and toes, ears, eyes, nose and mouth.

Learning point

- Our body is made up of the head, neck, stomach, arms and legs.

FUN CORNER

1) Join the dots in the diagram below.



• What picture did you end up with?

2) Colour the picture.



Check your progress 1a

- 1) Count the number of your body parts and fill the blank spaces with correct answers.
 - (a) I have _____ legs.
 - (b) I have _____ hands.
 - (c) I have _____ toes.
 - (d) I have _____ ears.
 - (e) I have _____ fingers.
- 2) Which part of the body can move?
- 3) What enables our body parts to move?

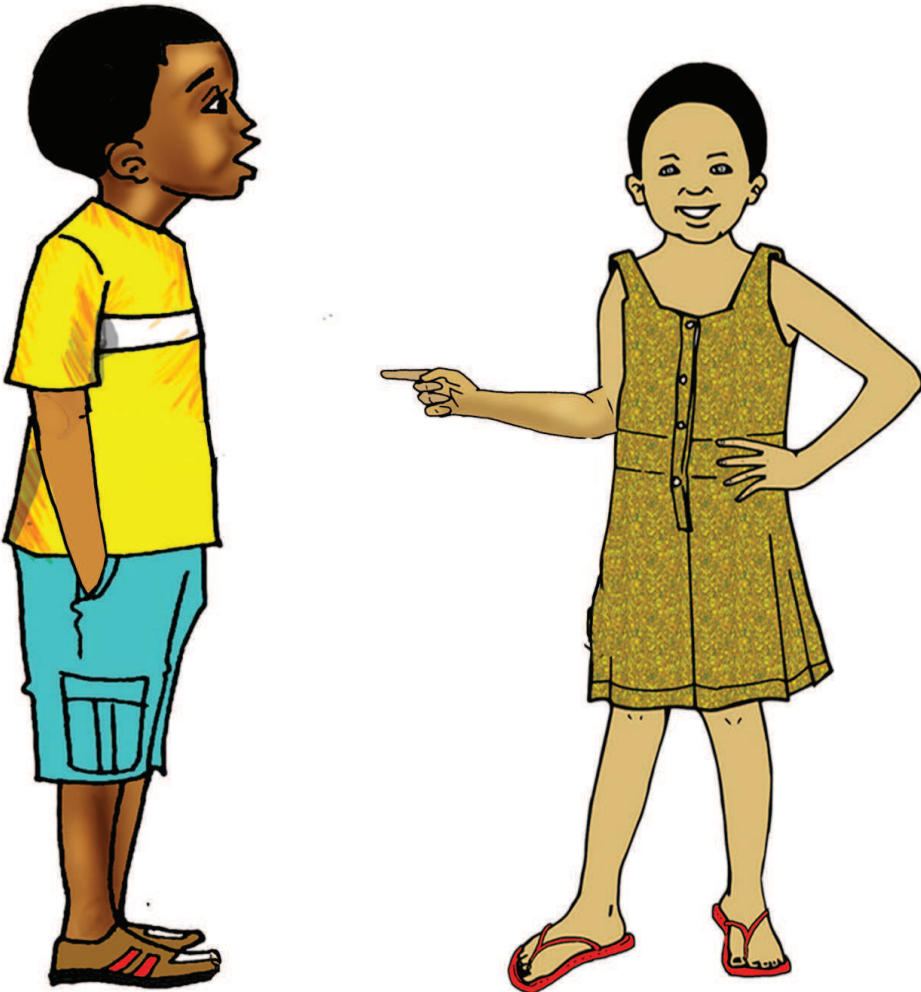
1.2 Uses of bones, joints and muscles in human beings



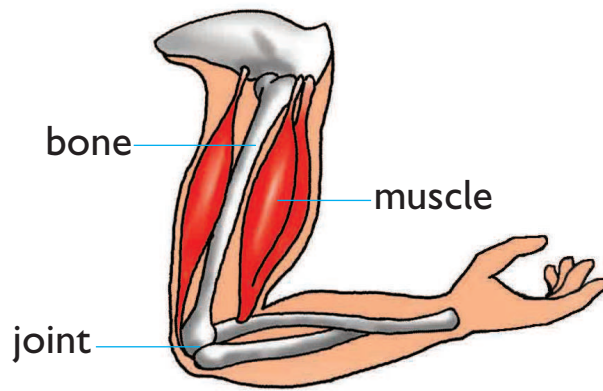
Activity 1.2

In pairs

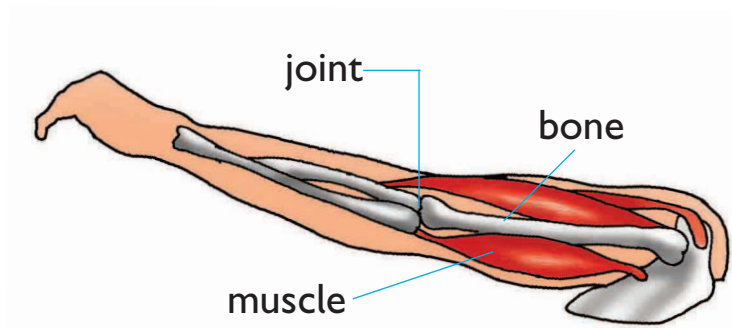
- 1) Use a string to measure the length of the arms and legs of your partner when stretched and when bent.



- What makes your arm and legs to stretch or bend?
- How are you able to run, jump, skip or walk?



a) A bent arm



a) A stretched arm

2) Trace your longest finger when stretched on a drawing paper.

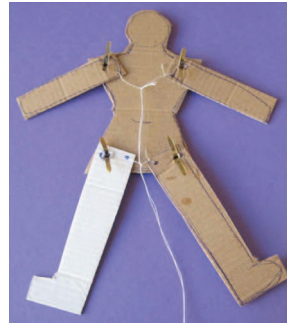
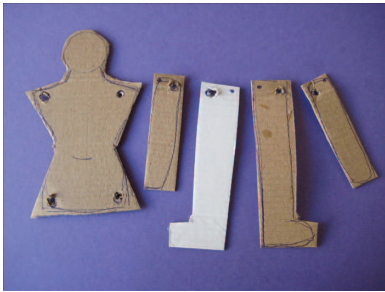


Learning point

- Bones and joints work together with muscles to help in movement.

FUN CORNER

- 1) Get cartons with human pictures.
- 2) Cut out the parts of the human body using scissors.
- 3) Join the body parts using a string.
 - Are the body parts moving?



Importance of healthy exercises



Activity 1.3

In groups



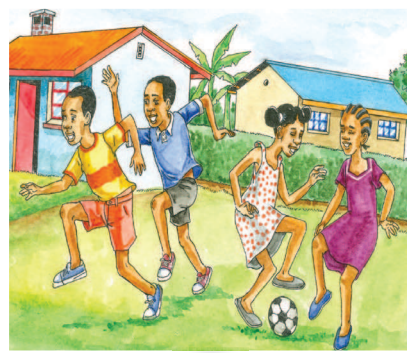
A



B



C



D



E



F

- 1) What activities are the children doing in the pictures?
- 2) Why are the activities important?

Learning point

- Exercise is good for our health.



Check your progress 1b

- 1) What enables our body parts to move?
- 2) Which parts of our body can move?
- 3) What enables your arm to bend up and down?

FUN CORNER

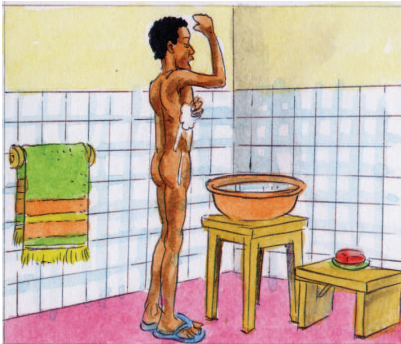
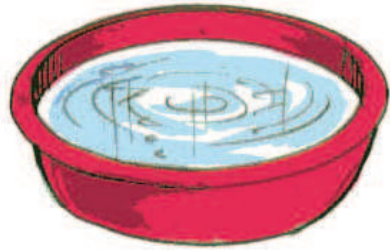
- 1) Using clay or plasticine to model a person walking.
- 2) Can the arms or legs move?

How to keep the body clean



Activity 1.4

In pairs



Discuss these questions with your friends.

- 1) How will you use soap and water to keep your body clean?
- 2) Why do you need to keep your body clean?

Learning point

- We keep our body clean by using soap and water.

1.3 Using toilets and latrines



Activity 1.5

In groups



- 1) Talk about what you see in the picture above.
- 2) Where do you go when you feel pressed?

Learning point

- **Toilets, latrines and urinals** are places where we go to relieve ourselves.



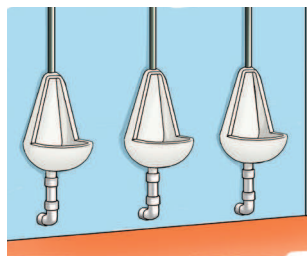
Activity 1.6

In groups

- 1) Visit the toilets or latrines and urinals at your school.
- 2) Can you identify the types of toilets found in your school or home?



A



B



C

- 3) Which one is found:
 - a) At your school?
 - b) At your home?

Learning point

- There are three types of toilets: pit latrines, flush toilets (water closet) and urinals. We should always use them properly while in school and at home.

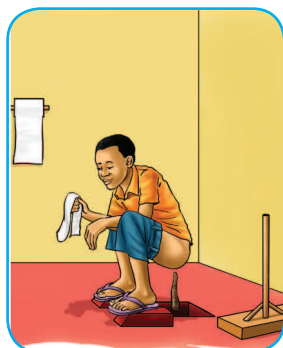


Proper use of latrines and toilets



Activity 1.7

In pairs



A



B



C



D

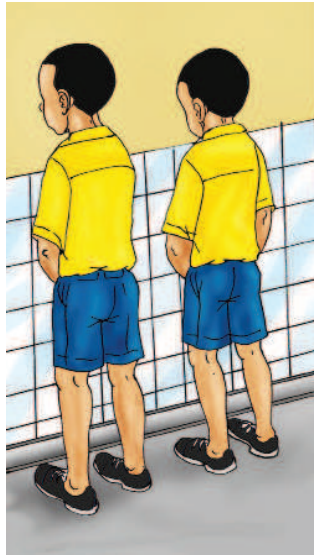
- 1) Who used the latrine and toilet properly?
- 2) Talk to your friend about how you use latrines at home and school.

FUN CORNER

Role play with a friend how to use a pit latrine or toilet properly.

Urinals

Urinals are only used by boys or men to pass urine.



Using a trench urinal

FUN CORNER

Boys to role play using urinals.



Remember

Always wash your hands after visiting the toilet.



Good habits when using toilets, latrines and urinals



Activity 1.8

In groups

- 1) What is happening in each picture?



A



B

- Say whether they are good or bad habits.



Remember

Always clean the toilets, latrines and urinals to keep off dirt and germs.



Check your progress 1c

- 1) Put a tick in the box to say whether these are good or bad habits when using toilets.

Habit	Good habit	Bad habit
a) Knocking the door of a toilet before entering.		
b) Disposing off diapers in flush toilet bowls then flushing the toilet.		

- 2) What should we do when the toilets are dirty and smells bad?
- 3) Name two things used in cleaning the latrines and toilets.
- a) _____ b) _____

I.4 Washing hands



Activity 1.9

In groups



- 1) Your teacher will help you read words in the picture.
- 2) Why do you think washing hands after visiting the latrine is important?

Learning point

- It is important to keep our hands clean. Dirty hands contain germs that cause diseases to us.

FUN CORNER

Role play washing hands with your friend using soap and clean water.



Remember

We should always wash our hands using soap and clean water.



Check your progress 1d

- 1) What happens to our hands when we play with soil?
- 2) Where do germs hide?
- 3) Which things make our hands dirty?



2.1 Plants



Activity 2.1

In groups

1) Which plant is found near your home or school?

A



B



C



D



E



F



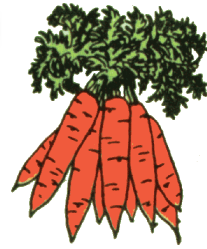
G



H



I



- 2) Which of the plants in the pictures do you know?
- 3) Play a game of naming the plants and where they are found.
- 4) Create a garden within the school compound with different types of plants found in different regions.

Learning point

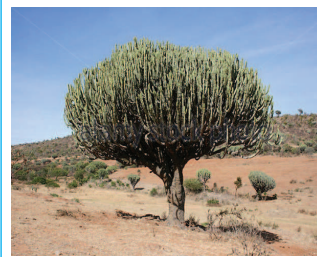
- There are many types of plants.
 - a) These plants grow in dry areas.



Acacia



Cactus



Euphorbia

- b) These plants grow in cool places with a lot of water.



Water lily



Water hyacinth



Amazon lily

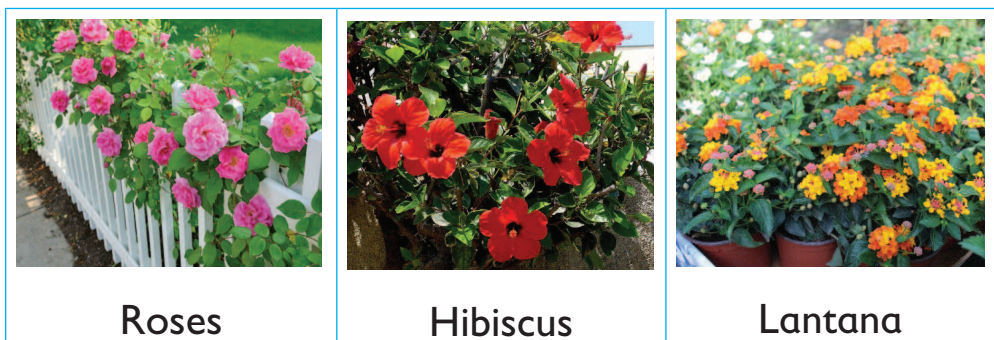
- c) Some plants grow in our gardens and we use them as a source of food. These plants include:



- d) Some plants give us food. They include:



- e) Some plants produce flowers that make our homes look good and beautiful. They include:



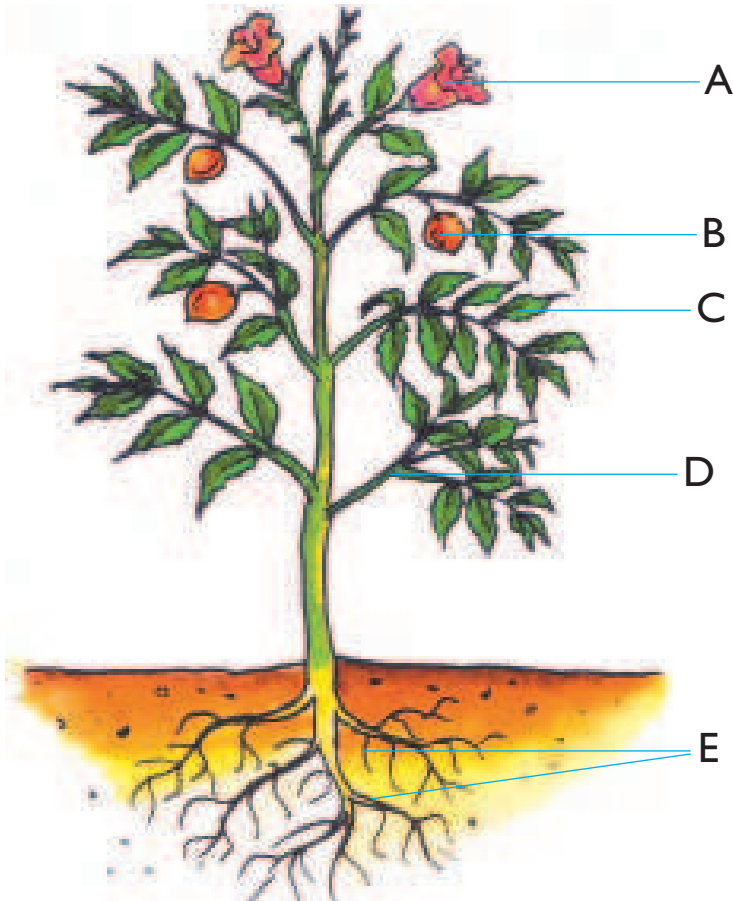
Parts of a Plant



Activity 2.2

In pairs

- 1) Name the parts of a plant shown below.



FUN CORNER

Draw a plant and name all its parts.



Check your progress 2a

- 1) Which plants grow in dry and cool areas? Fill in the blank spaces with the correct letters.
- (a) Ac__ci__ (b) C__ ct__s
- (c) W__t__r l__ly (d) W__ __er hy__c__nth










Plants that we eat



Activity 2.3

In pairs

1) On which part of the plant do we get these foods?

 A	 B	 C
 D	 E	 F
 G	 H	 I



J



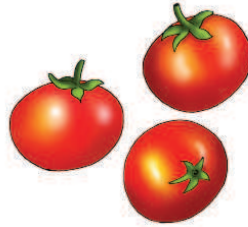
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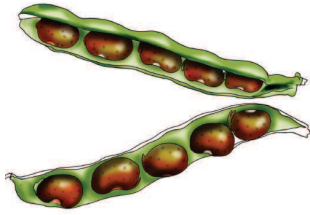
N



O

- 2) Play a game of naming the parts of the plants. Let your friend point at a picture as you name.
- 3) Which parts of the plants are eaten raw or cooked?
- 4) Match the following plants with parts eaten.

Plant	Part of plant eaten
	fruit
	roots



fruit



roots



Seeds



leaves



Pods

Plants we cook before eating and those eaten raw



Activity 2.4

In groups

- 1) Pick plants that you eat raw and those eaten when cooked.



Pumpkin



Beans



Potatoes



Mangoes



Pawpaws



Watermelon



Sugar cane



Yam



Orange

2) Write down the plants cooked before eating and those eaten raw.

Eaten only when cooked	Eaten when raw
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____

Learning point

- Plants that we cook before eating are beans, maize, pumpkins, potatoes and arrow roots.
- Plants we eat without cooking(raw) include; bananas, pawpaws, coconuts, carrots, pineapples, mangoes, oranges and watermelons. Most fruits are always eaten raw.



Remember

Some plants are not eaten. They are harmful to our health.

FUN CORNER

Draw and colour three types of plants we eat without cooking.
(raw)



Check your progress 2b

- 1) Complete the table below. Choose your answer from the words given below.

Plants which we eat	Plants we do not eat
a. _____	a. _____
b. _____	b. _____
c. _____	c. _____
d. _____	d. _____
e. _____	e. _____
f. _____	f. _____
g. _____	g. _____

Papyrusreeds,peas,bananas,cactus,flower,maize,nappiergrass,
sisal, beans, hibiscus, arrow roots, acacia, carrots

2.2 Differences and similarities in plants from local and other parts of the world



Activity 2.5

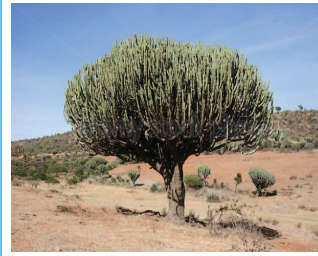
In groups



Nappier grass



Water lilies



Euphorbia



Beans



Cactus



Acacia

- 1) Talk about the plants in the pictures above.
- 2) Where do you find these plants?

Learning point

- Plants grow in different areas due to the weather conditions of the place.

FUN CORNER

Draw and colour plants that grow around your home.



Check your progress 2c

- 1) Euphorbia and _____ grow in hot and dry places.
(beans, mangrove, acacia)
- 2) Plants like maize and bananas grow in _____. (cool places, water, dry places)

2.3 Reasons why animals feed on some plants and not others



Activity 2.6

In pairs



A



B

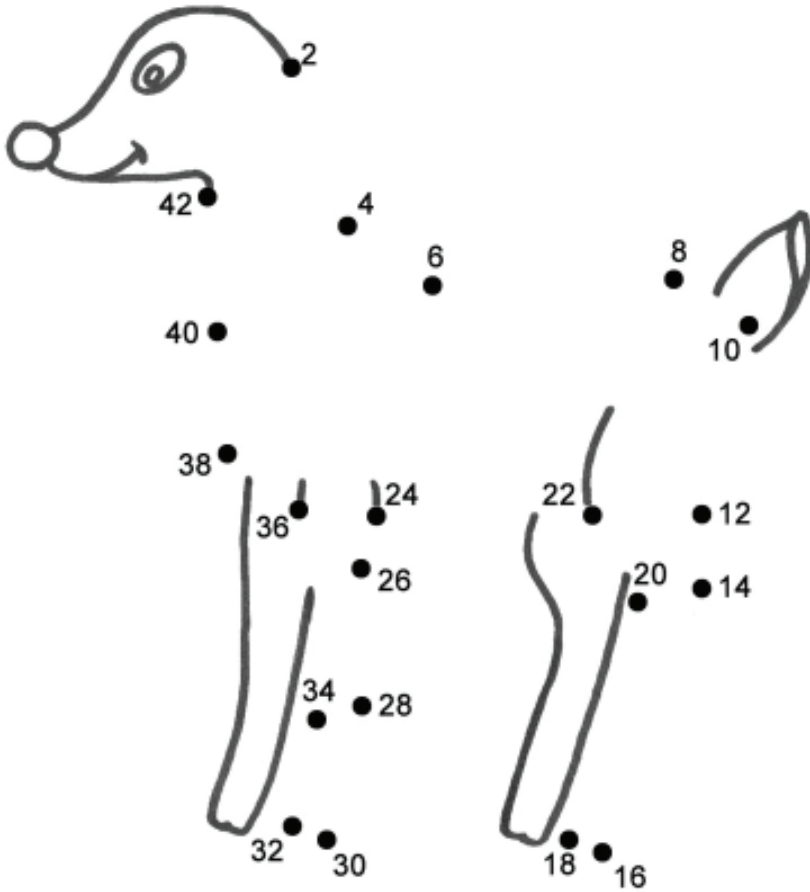
- 1) Talk about what you see in the pictures above.
- 2) Which plants do the animals, for example, cows or goats feed on?

Learning point

- Animals do not eat some plants because they are poisonous to the animals.
- Animals have different feeding habits.

FUN CORNER

Trace and join the dots to form an animal then colour it.



2.4 Plants or parts of plants children like and dislike



Activity 2.7

In pairs



A



B



C



D



E



F

- 1) Talk about the pictures above with a friend.
- 2) Which plants do you like or dislike? Why?

3) Come up with a list of plants you like or dislike in the following table.

Plant liked	Plant disliked
a) _____	a) _____
b) _____	b) _____
c) _____	c) _____
d) _____	d) _____
e) _____	e) _____

FUN CORNER

Sing the song below.

We like flowers because they are beautiful.

We like leaves because we play with them.

We like fruits because they are sweet.

We dislike roots because they are dirty.

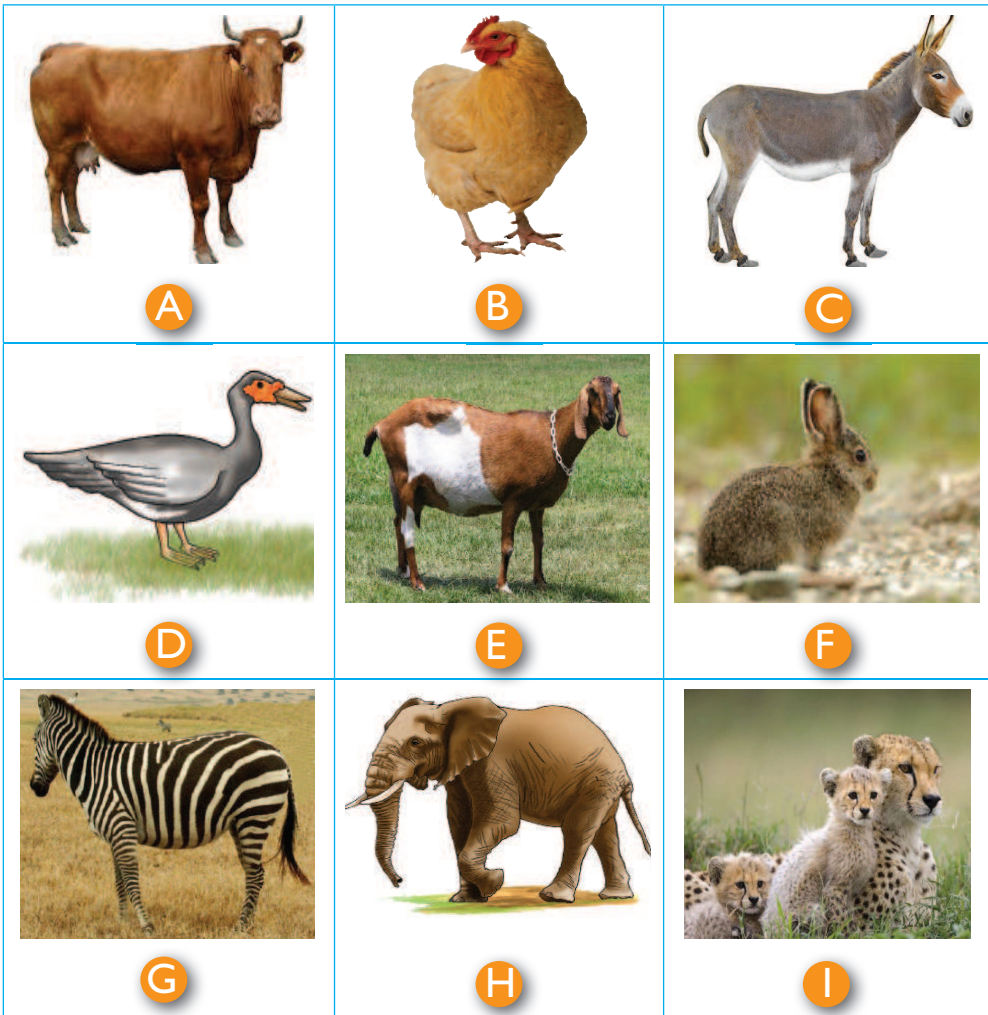
2.5 Animals

How animals around the school differ from others in the world



Activity 2.8

In pairs



1) Name the animals shown in the previous page.

- Which animals are found at your home?
- Which animals are found in the forest?

Learning point

- Animals found at home are called **domestic animals**.
- Animals found in the forest are called **wild animals**.

Importance of plants and animals

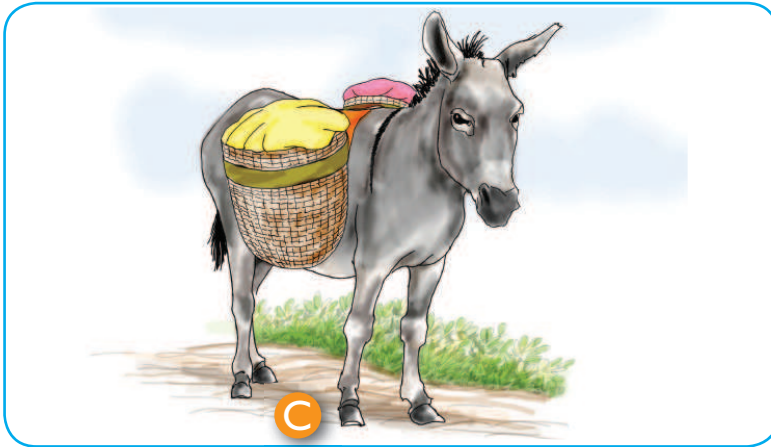


Activity 2.9

In pairs

1) Name the importance of plants and animals shown in the following pictures.







Remember!

Animals that live in the forest are called **wild animals**. For example; elephants, snakes, giraffes, lions, hares and leopards.

FUN CORNER

Draw and colour animals kept at home.



Check your progress 2d

- 1) How are animals important to us?
- 2) I provide security at home. Who am I?
- 3) Which animals give us food?
- 4) Animals that live at home are called _____ animals.

3.1 Sources of light



Activity 3.1

In groups

- 1) Name the sources of light shown below.



A



B



C



D



E



F

- 2) Name other sources of light used in your home.
- 3) Where do you think light comes from?

Learning point

- Sources of light include the sun, lantern, fire, candles, lamps, torches.



Remember!

The sun is the main source of light. Do not look directly at the sun. It can destroy your eyes.

FUN CORNER

Draw and colour the source of light you use at home.

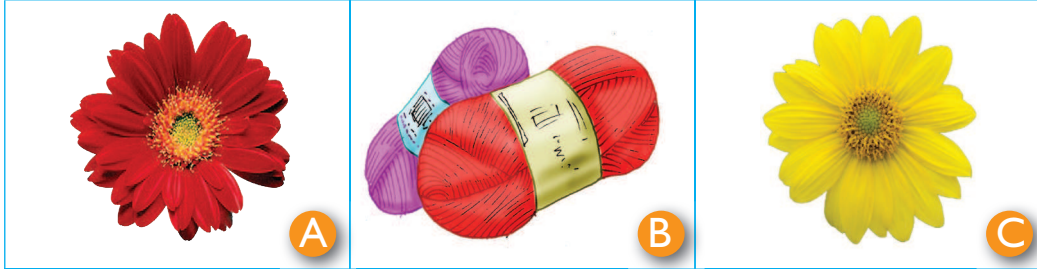
3.2 Sense of seeing



Activity 3.2

In pairs

- 1) Tick the one that is different in each row.



- 2) Why do you think they are different from the rest?

Learning point

- We cannot see without our eyes. Eyes helps us to see.

Did you know?

Hawks have strong eyes which help them see things from far up in the sky. That is why they see small chicks from far and come to catch them.

FUN CORNER

Draw and colour the sun, moon and stars.



Check your progress 3a

1) Match the source of light with its name.

Picture	Name
	Candle
	Sun
	Lamp
	Fire

2) When there is no light, my _____ cannot see.

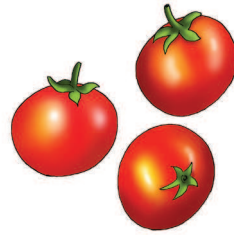
3) Write the correct colour for the following foods.



(a) _____



(b) _____



(c) _____

3.3 Sources of sound



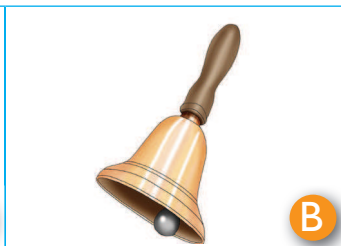
Activity 3.3

In groups

- 1) Name the following sources of sound.
- 2) Which ones are found at school?
- 3) Which ones are found at home?



A



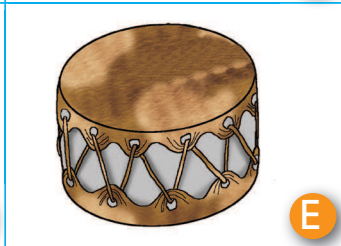
B



C



D



E



F

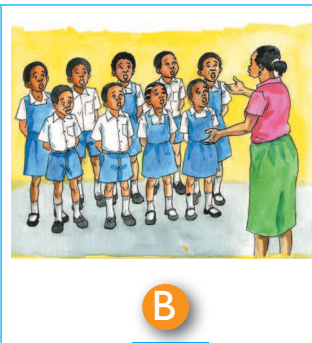
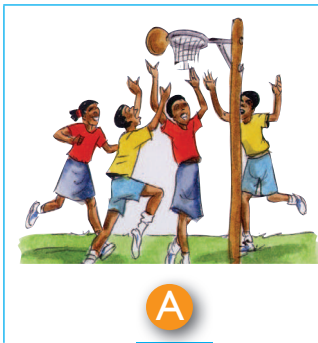


4) Name other sources of sound.

Learning point

- Things that produce sound are called **sources of sound**.

Look at the pictures below. What are the children doing?

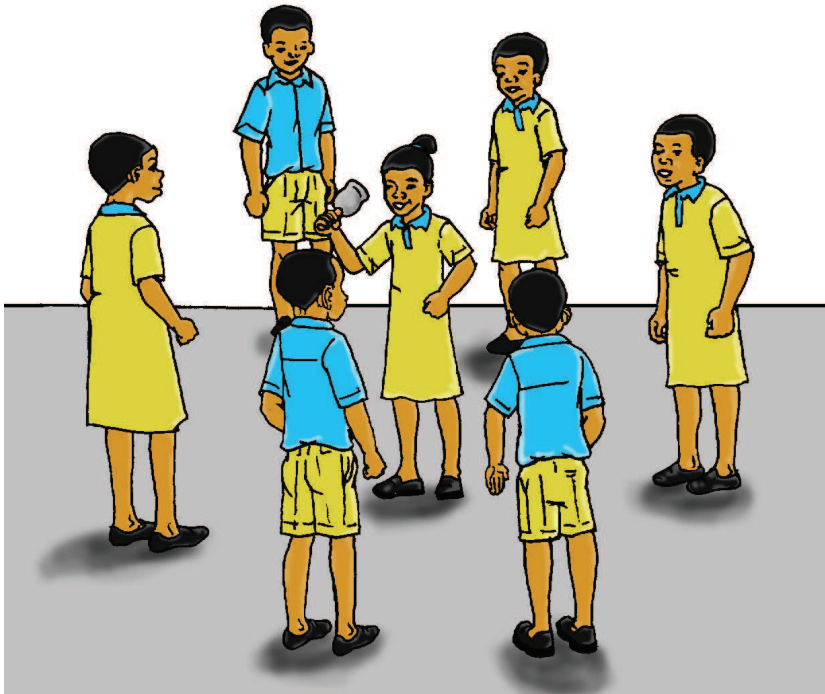


- When children play, they produce sound.
- When children sing, they produce sound.
- When playing a guitar, sound is produced.

FUN CORNER

- 1) Draw and colour the sources of sound in school.
- 2) Recite this poem

Sound oh! Sounds at school
When children play, sound
When children sing, sound
When the bell rings, sound



Sound at home



Activity 3.4

In groups

- 1) What kind of sounds do the items below produce? Do they produce the same sound as these sounds found at school?



- 2) When at home, listen to the sounds around the compound.
- 3) Can you name some sources of sound you have heard?
- 4) Which animals produce sound at home? Can you name them?

Learning point

- There are different sources of sounds around the school and at home.

FUN CORNER

Draw and colour a dog barking.



Remember!

Sharp or loud sounds can cause damage to the ears!



Check your progress 3b

- 1) What type of sound is produced by each of the picture below?



A



B



C



D



E



F

3.4 Sense of hearing

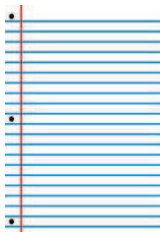


Activity 3.5

In pairs

- 1) Drop the following things on the floor. Tick the correct box with the kind of sound produced.

Picture	Loud	Soft
		
		
		
		



2) What did you use to differentiate the sounds?

Learning point

- Things that produce sound are called **sources of sound**.
- The ear is the organ for hearing.

FUN CORNER

Close one ear and role play listening to different sounds.



Remember!

We should protect our ears.

Did you know?

Horses have strong ability to hear sound from far.

Elephants have large ears that can get faintest sound.

3.5 Sense of taste



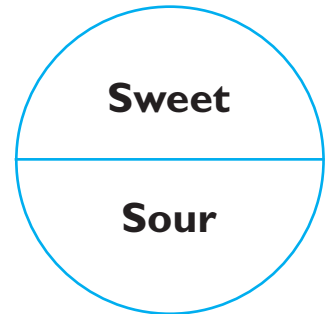
Activity 3.6

In groups

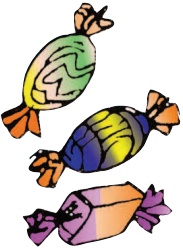
- 1) Play a game of tasting things.
- 2) Blindfold one member of the group and let him or her pick an item from a box and taste.



- 3) Let your friend tell you if you are right.
- 4) Draw a line to match each picture with the correct part of the circle.



- 5) How do the following taste?

	Sweet	Salty
	Bitter	Sour
	Sweet	Salty
	Bitter	Sour



Sweet

Salty

Bitter

Sour



Sweet

Salty

Bitter

Sour

Learning point

- The tongue is the organ for tasting.
- Some things taste sweet, bitter, salty or sour.
- Some things taste salty. Salt tastes salty.



Remember

Do not taste everything that you come across. Some things may be harmful to your health.



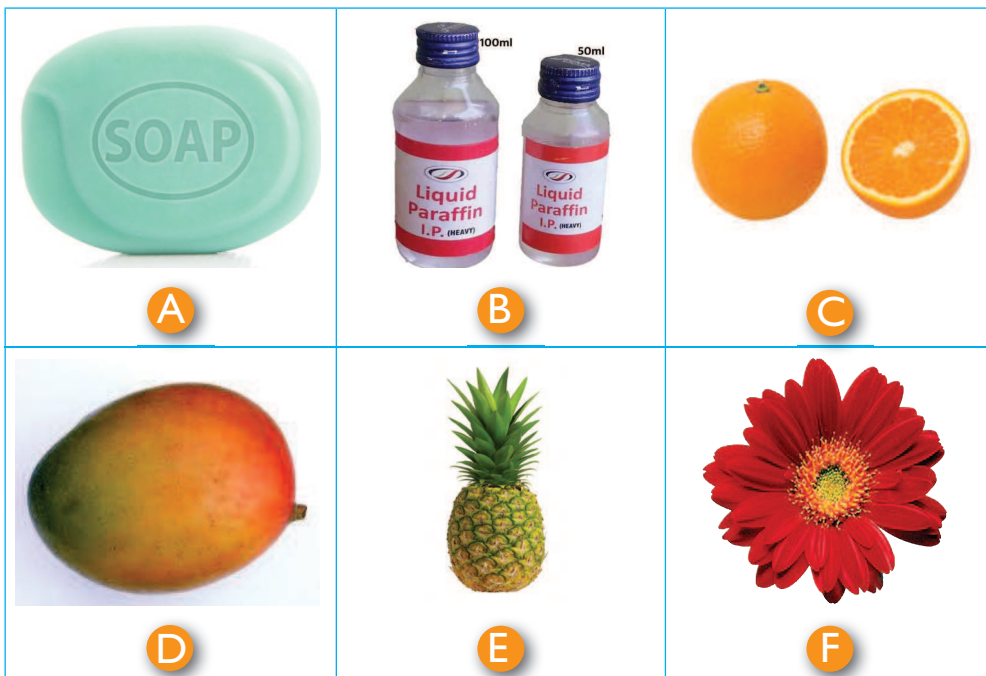
3.6 Sense of smell



Activity 3.8

In pairs

1) Smell these things.



- Which one has a smell?
- Do all things smell the same?

2) In pairs, play a game of smelling items.



3) Can you identify the items?

Learning point

- We use the nose to smell things.
- Our nose is the sense organ for smelling.

FUN CORNER

Role play a smelling game with a friend.






Remember

Dogs have a strong sense of smell. It can smell things that are very far.



Check your progress 3d

1) Match the sense with the sense organ in the table below.

Sense organ	Sense
	Sight
	Tasting
	Smelling



Hearing

3.7 The sense of touch



Activity 3.7

In pairs

- 1) Play a game of feeling things provided by the teacher.



- 2) Let your friend blindfold you and use your hands to touch things.
- 3) Touch and feel whatever is brought to you, one by one and say how it feels.
 - Is it cold or warm?
 - Is it rough or smooth?
 - Is it hard or soft?

Learning point

- We use the skin to feel things around us.

FUN CORNER

Play a game of feeling things with a friend.



Remember!

Do not touch everything you come across, some things can be dangerous to you.



Check your progress 3c

1) How do the following things taste?



A



B



C



D

2) How do the following things feel?



A



B



C

4.1 Weather changes



Activity 4.1

In pairs



A



B



C



D

1) What type of weather is shown by each picture?

Learning point





- Weather can change within a short time.
- Weather can be windy, cloudy, rainy, sunny or calm.

Weather symbols



Activity 4.2

In pairs

Weather symbol	
 A _____	 B _____
 C _____	 D _____

1) What do you think the symbols above represents?

Learning point

We use weather symbols to record weather conditions of a particular day.

FUN CORNER

Draw the symbol of the weather today.

4.2 Recording of weather changes



Activity 4.3

In groups

- 1) The table below shows of the daily weather conditions. Use the table below to answer question on the next page.

Daily weather condition		
Day	Morning	Afternoon
Monday	Sunny	Rainy
Tuesday	Calm	Windy
Wednesday	Cloudy	
Thursday	Sunny	
Friday	Sunny	
Saturday	Sunny	
Sunday	Cloudy	

During the week

- a) How many days were rainy?
- b) It rained on _____, and _____ day.
- c) How many days were sunny? _____
- d) On which days was the weather calm? ____, __ and ____

- e) How many days were windy? _____

Learning point

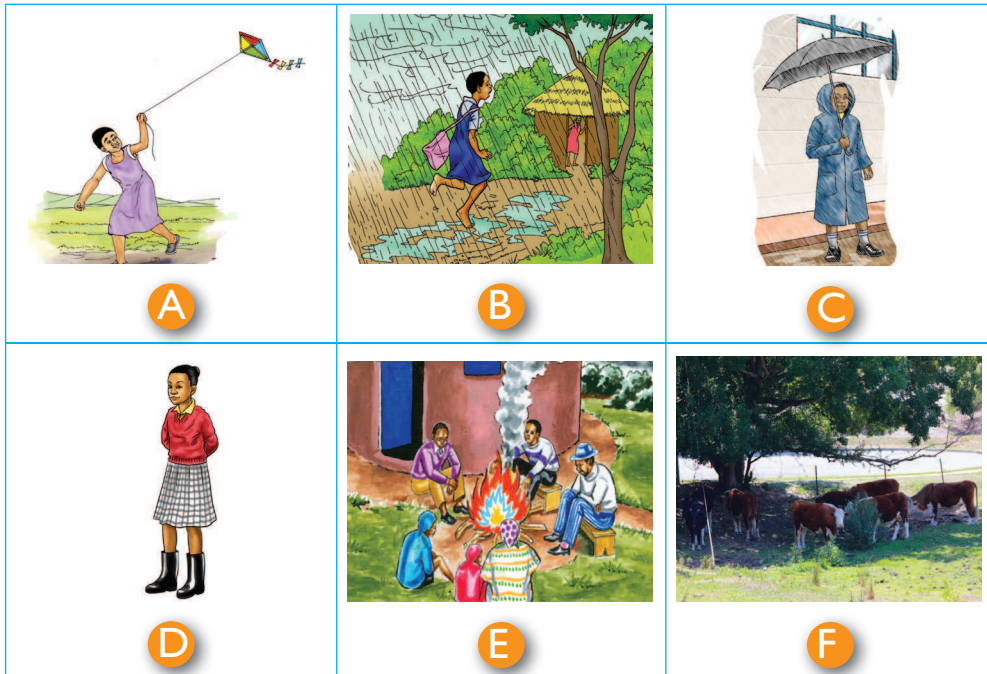
- When we fill in daily weather conditions in a table, we are recording weather conditions.
- The recording of daily weather conditions for more than one week is called a weather chart.

4.3 How to tell weather conditions



Activity 4.4

In pairs



Can you tell the weather conditions shown in the pictures above?

Learning point

- We can tell the weather condition by looking at how things behave.

Role play using the weather instruments to measure weather.

4.4 Air around us



Activity 4.5

In groups

- 1) Play a game of fanning yourselves with books to feel the air around you.



- 2) How do you feel?
 - Where do you think the air you feel comes from?

Learning point

- You cannot see, touch or hear air.
- We only see what air does.

FUN CORNER

Use papers and sticks to make a fan. Use it to fan yourself when you feel hot.



Activity 4.6

In groups



A



B



C



D



- 1) Talk about what you see in the pictures with a friend.
- 2) What do you think has been put in the balloon, car tube and ball to make them big in size?

Learning point

- Air fills the ball, car tube and balloon to make them appear big in size



Remember!

The air we breathe is around us.

4.5 Effects of moving air

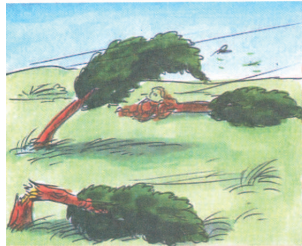


Activity 4.7

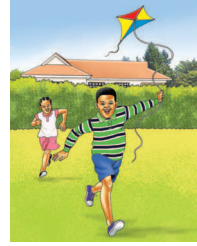
In groups



A



B



C

- 1) In groups, talk about what you see in the pictures.
- 2) What do you think makes things move?
- 3) Go out of the class and look at trees, objects like papers and clothes.
- 4) Can you say what is happening?

Learning point

- Moving air is called **wind**. Wind makes things to move.

FUN CORNER

Make a kite and fly it on a windy day.



Remember!

Wind can cause destruction of things.

4.6 Uses of moving air



Activity 4.8

In groups



A



B

- 1) What do you think is happening in the pictures above?
- 2) What do you think are the uses of the wind? Mention them.
- 3) What do you think can happen when there is no wind?



Learning point

- Wind helps us to dry clothes, generate electricity and winnow grains.



Check your progress 4a

- 1) We cannot _____ air.
- 2) I make trees and flags move. Who am I? _____
- 3) Moving _____ makes a kite to fly.

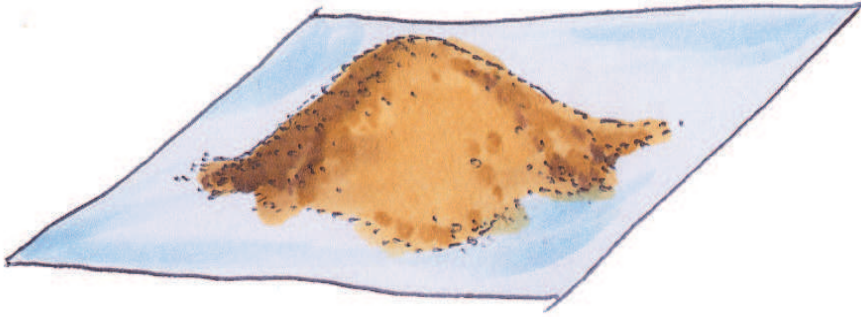
5.1 Collecting soils from different places



Activity 5.1: Feeling soil

In groups

- 1) Collect some soil and place it on a sheet of paper.



Soil on a sheet of paper

- What is the colour of the soil?
 - What things can you see in the soil?
- 2) Soil may have these things:
soil particles, dead plants and animals like dead insects, earthworms and millipedes.
 - 3) Now touch and feel the soil between your fingers.





Feeling soil between fingers

- Are there big and small particles?
- Are the particles smooth or rough?

Learning point

- Some soils are smooth like powder. Other soils are rough like sand.



Activity 5.2: Feeling different types of soil

In groups

- 1) With the help of your teacher collect soil from the garden, roadside, river and river bank.
- 2) Look at each type of soil.
- 3) Touch and feel each soil collected.



Feeling soils from different places

- Which soil has the largest particles?
 - Which soil has small particles?
 - Which one feels soft when touched?
 - Which one sticks to the fingers when wet?
- 4) Your teacher will help you to group the soils collected into clay, sand and loam.

Learning point

Soils with large particles like sand feel rough.

Soils with small particles like clay feel smooth.



Activity 5.3: Drawing on soil

In groups

- 1) Collect some dry soil.
- 2) Pour it on a level ground or floor.
- 3) Make the soil levelled with a stick or ruler.
- 4) Use your finger to write numbers, letters patterns or shapes on the soil.



Drawing on soil

- 5) Now draw a picture of a bird and house on the soil.
- 6) Step on the soil to make a foot print.
- 7) Now make a palm print like the one shown on the soil using your hand.



Hand



Palm print



Check your progress 5a

- 1) Different soils have different textures. _____ (True or False)
- 2) Collect soils from these places: home garden, on the roadside, an anthill. Feel the soils.
 - a) The soil from the home garden feels _____.
 - b) The soil from the way to school (road) feels _____.
 - c) The soil from an anthill feels _____.

5.2 Mixing soils with water






Activity 5.4

In groups

- 1) Put soil in the three containers and add water.



- 2) Tick the one that allows water to pass through fastest.

Picture	Name
	<input type="checkbox"/>
	<input type="checkbox"/>
	<input type="checkbox"/>

3) How does the three types of soil feel after mixing with water?

- Which soil mixes easily with water?

Learning point

- **Clay soil**

Clay soil is smooth and sticky when wet.

- **Sand**

Sand is less sticky when wet and less smooth.

- **Gravel**

When wet, it is not sticky and has a rough feel.



Check your progress 5b

- 1) I am a type of soil used to build roads. Who am I? _____
- 2) I am a type of soil found mostly in rivers beds. Who am I? _____
- 3) I am a type of soil used to model dolls and pots. Who am I? _____



5.3 Modelling with soil



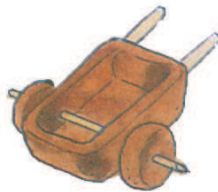
Activity 5.5

In pairs

1) Model the following.



2) Model the following objects using clay.



- 3) Leave the models to dry for three days.
- 4) How does the letters, numbers and objects look like?

Learning point

- Different things are modelled using clay soil. For example:



- Clay soil is the best soil for modelling.
- Ribbons from other soils such as sand and gravel crack after some time when they dry.

FUN CORNER

Model a doll, cup, house and a car using clay soil.



Remember!

Clay is the best soil for modelling.



Check your progress 5c

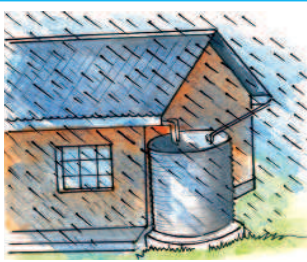
- 1) The soil that makes the poorest models is _____ soil.
(clay, gravel)
- 2) Soil which feels smooth when touched is _____ soil
(Clay, gravel, sand)
- 3) A doll is made from which type of soil? _____

6.1 Sources of water



Activity 6.1

In pairs



A



B



C



D



E



F

- 1) Talk about what is in the pictures above.
- 2) Where do you get water for use at home and school from?
- 3) Which source of water is found near your home?

Learning point

- We get water from rivers, rain, wells, dams, oceans, lakes, seas and boreholes.
- These are called **sources of water**.



Remember!

Dirty water causes diseases.

FUN CORNER

Draw, colour and name two sources of water.

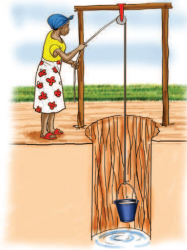


Check your progress 6a

1) Name this sources of water.



This is



This is a



This is a

2) Rearrange the following letters to form the correct source of water.

a) ohrleboe _____

b) inar _____

c) rrvei _____

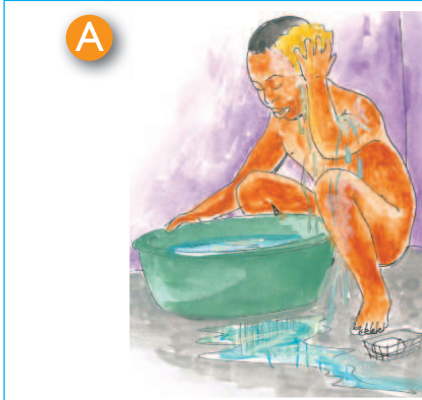
d) ealk _____

6.2 Uses of water



Activity 6.2

In groups



- 1) What is happening in the pictures above?
- 2) How do you use water at home?

Learning point

- We use water every day both at home and at school.



Activity 6.3

Class activity

What you need

Syringe, wheel, tubes

What to do

- 1) Your teacher will help you to make a water wheel using a syringe.
- 2) Use the syringe to make the wheel to move.
- 3) What do you think made water to come out of the syringe to move the wheel?

Learning point

- Water can be used to move wheels.

FUN CORNER

Recite the following poem

Oh! water, precious water!

When thirsty, water

Oh! water, precious water!

Washing clothes, water

Oh! water, precious water!

For bathing water

Oh! water, precious water!

Crops growing, water

Oh! water, precious water!

When cooking, water



Remember!

We should always drink clean boiled water.

6.3 Using water well



Activity 6.4

In pairs



A



B

- 1) What is happening in each picture?
- 2) What do you think will happen if the tap is left to run for a long time?
- 3) Talk in groups how we re-use water at home.

Learning point

- We should use water sparingly.
- We should not waste water.

FUN CORNER

Practise watering plants or flowers at home and in school.



Remember!

We should always close taps after use to avoid wasting water.



Check your progress 6b

- 1) How do you use water well at home?
- 2) Match the activity in the picture with its meaning.

Activity	Words
	Watering plants
	Cooking food
	A girl drinking water
	Children swimming

6.4 Measuring water



Activity 6.5

In groups

What you need

- Water
- Measuring cylinder
- Small containers of different shapes and sizes
- Four containers of the same size and shape (cups)
- Plastic bottles of various sizes

What to do

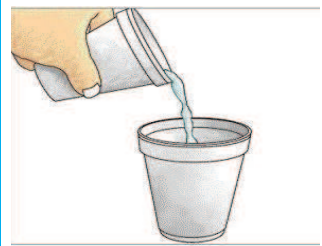
- 1) Fill all the containers with water.
- 2) Which containers hold more or less water?



A



B

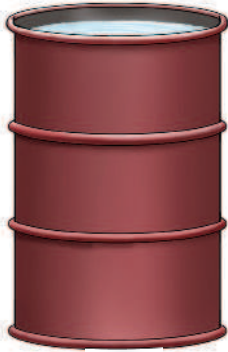


C

- 3) Pour the water in the small containers to fill the big containers

4) Measure the amount of water that fills containers using the measuring cylinder.

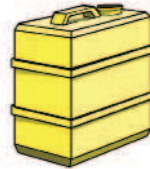
- Do all the containers hold the same amount of water?
- Which one holds more or less?



A

B

C



D

E

F

Learning point

- Big containers hold more water than small containers

FUN CORNER

Practise filling a big container with water using a small container. How many small containers of water do you use to fill a big container?





Remember!

We use small and big containers at home to store **water**.

6.5 Floating and sinking



Activity 6.6

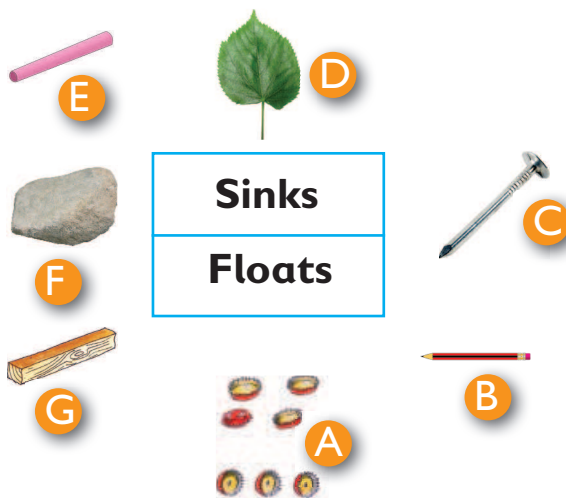
In pairs

What you need

Stones, bottle tops, pencil, rubber, ruler, basin of water, piece of paper, nails, wooden blocks, coins and keys in classroom.

What to do

- 1) Put each of these objects in a basin of water.
- 2) Match what happens to the objects in the diagram below.



Learning point

- When an object remains on top of water, we say it is **floating**.
- When an object goes down into the water, we say it is **sinking**.



Remember!

When you swim you float on water.



Activity 6.7

In pairs

What you need

Big and small stones, large and small piece of paper.

What to do

- 1) Place the small stone on water. What happens?
- 2) Place the bigger stone on water. What happens?
- 3) Place small and big piece of paper on water. What happens?

Learning point

- Floating and sinking is not affected by size of the object.

FUN CORNER

Make a paper boat and sail it on water.





Activity 6.8

In groups

What you need

A basin of water, a bottle top and a hammer.

What to do

- 1) Place a bottle top facing upwards on a basin of water.
 - What happens? Does it sink or float?
- 2) Using a hammer or stone,
- 3) hit bottle top into a ball.
- 4) Place it back in water.
 - Does the bottle top sink or float?

Learning point

- Change in shape of an object can make it sink or float.





Activity 6.9

In groups

What you need

Water in a basin, two plastic lids of equal sizes and some stones.

What to do

- 1) Place the two lids on water.
- 2) Place two or three stones on the lid and label it A.
- 3) Place six to nine stones in another lid and label it B.
 - What happens?

Learning point

- Weight affects floating and sinking of objects.

FUN CORNER

Role play floating and sinking of objects in water.





Check your progress 6c

Fill the table below with the following objects.

Papers, stone, keys, coins, wooden block, rulers

Objects which float	Objects which sink
1. _____	1. _____
2. _____	2. _____
3. _____	3. _____