

# South Sudan

## *Science for PLEFS*

### **Pupil's Book 1**



*Pastoralist Livelihood and Education  
Field Schools (PLEFS) Approach*

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# Unit 1: Health Education

## Keep myself clean

What is this mother doing?

She is washing her baby.

Her baby will be clean and healthy.



Why do we wash our bodies?



When we play, we get dirty.

We wash our bodies because we want to be clean and healthy.

When we are clean we do not fall sick easily.

## Washing my body

What can I use to wash my body?

I use clean water and soap.

I wash my hands.

I wash my face.

I wash my head and hair.

I wash my feet.

I wash my whole body.

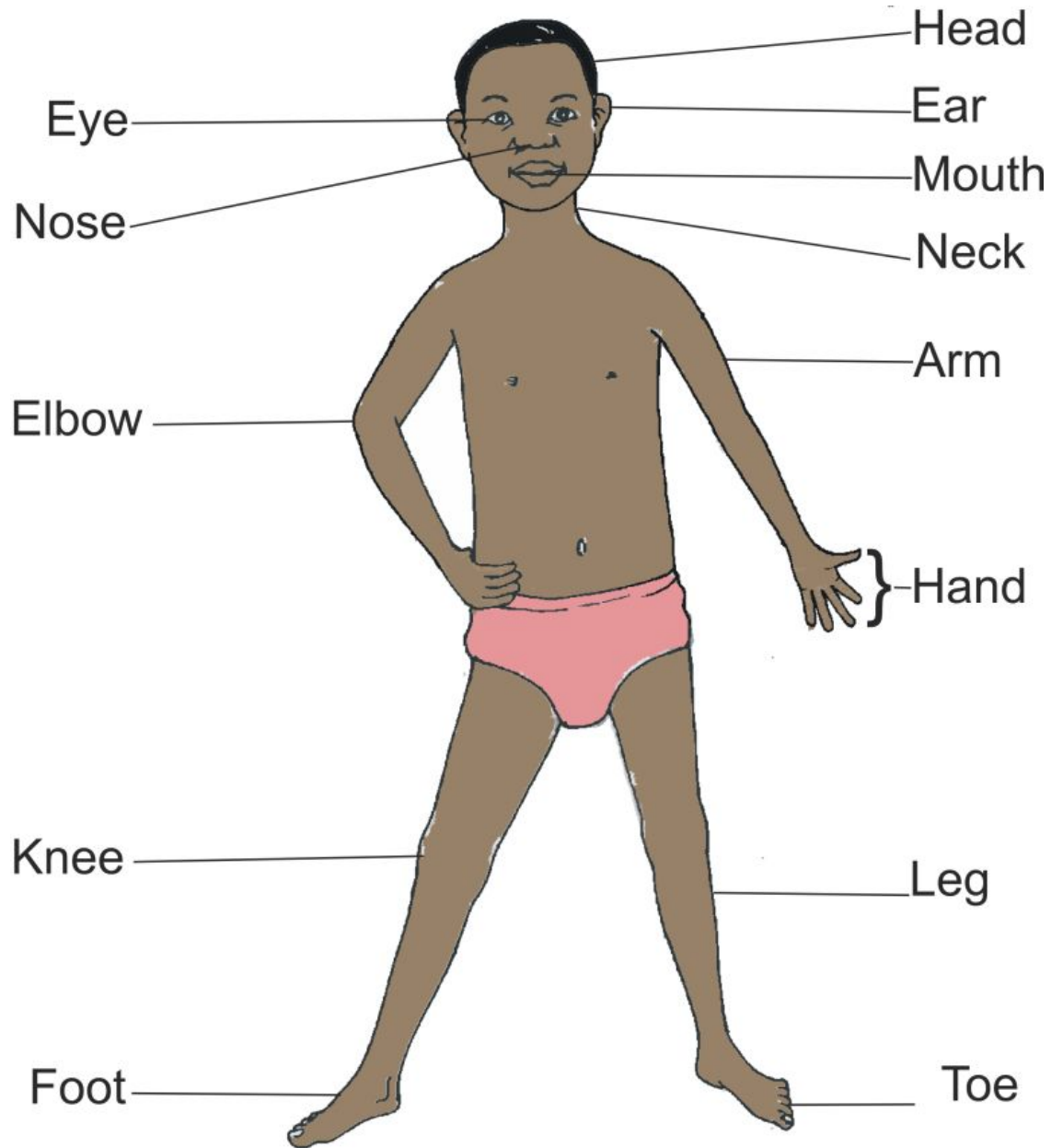


### ACTIVITY

Go outside and wash your hands.

## Parts of my body

Can you name the parts of the body?



Point to each part when your teacher says the name.

Tell your friend the use of each part of the body.

## ACTIVITY

Sing while touching your body parts.

Head, shoulder, knees, and toes

Knees and toes, knees and toes

Head shoulder, knees and toes

Eyes, ears, nose and mouth

## My face

I wash my face every day.

I feel good when I wash my face.

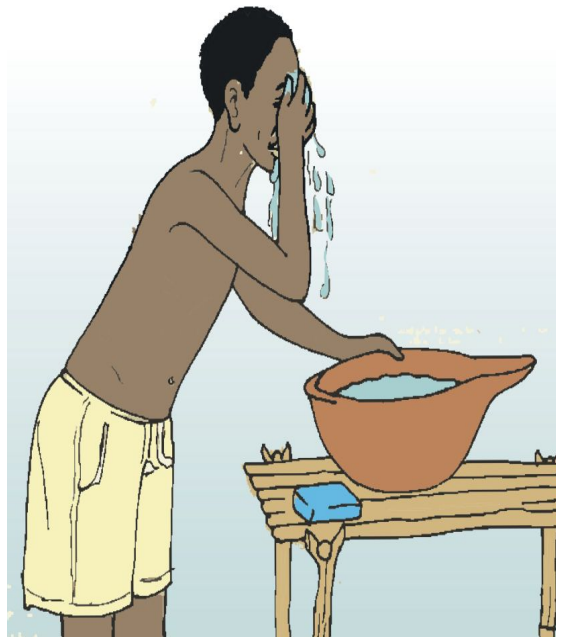
When I wash the dirt from  
my face, I look good.

When my face is clean, people like me.

I use soap and water

I also wash my neck

I wipe my ears inside and outside.



## ACTIVITY

Wash your face and then tell your friends how you feel after washing your face.

### My eyes

I use my eyes to see.

I can see when there is light.

I cannot see in the dark.

Flies and dirty hands carry  
diseases to my eyes



When the eyes are sick,

They are painful

I cannot see.

Some diseases can make me blind.

Blind people cannot see

## ACTIVITY

- How do you care for your eyes.
- Draw a picture of your eyes.

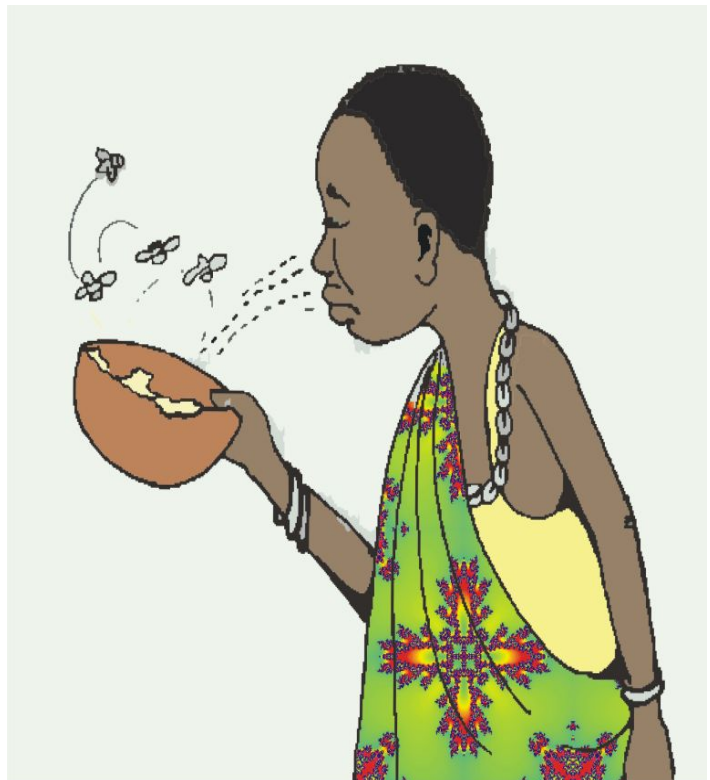
## My nose

I use my nose to smell and  
Breathe.

I smell good things, like meat,  
fish and onions.

I can smell bad things, like  
rotting meat.

I can smell harmful things, like  
Paraffin.



When I breathe, dirt is trapped in  
the nose.

I blow the dirt off my nose and clean it properly.

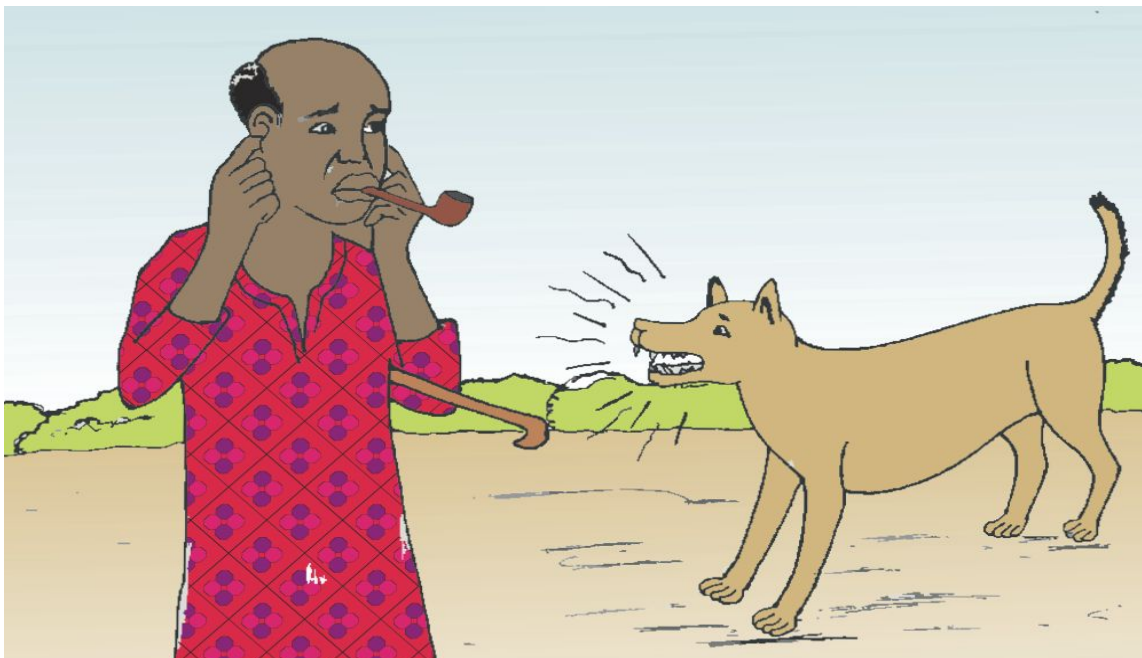


## ACTIVITY

- Draw a picture of something you can smell.
- Put the following in two groups: flower, rotten fruits, tomatoes.
  - a) Have bad a smell.
  - b) Have a good smell.

## My ears

I use my ears to hear.



I can hear pleasant sounds.

I can hear noise

I use a clean cloth to clean my ears.

Sharp things can hurt my ears.

I do not put anything in my ears.

### ACTIVITY

- Play a hearing game with your teacher.

## My Mouth

I use my mouth for talking and eating.

Small pieces of food remain on my teeth after eating.

They can make my teeth rot.

When my teeth are sick, I feel pain.

I brush my teeth.



I use a clean stick and ash to clean my teeth.

I wash my mouth with clean water.

## ACTIVITY

Show the class how you clean your teeth

## Keeping myself healthy

There are small living things called germs.

Germs live in dirt.

Germs make us sick.



My hands can carry germs from dirty places into my mouth.

I can remove some germs by washing my hands with soap or ash and clean water.

I wash my hands before I eat or touch food.

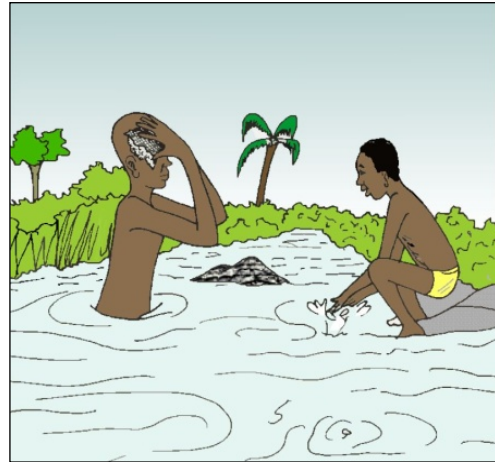
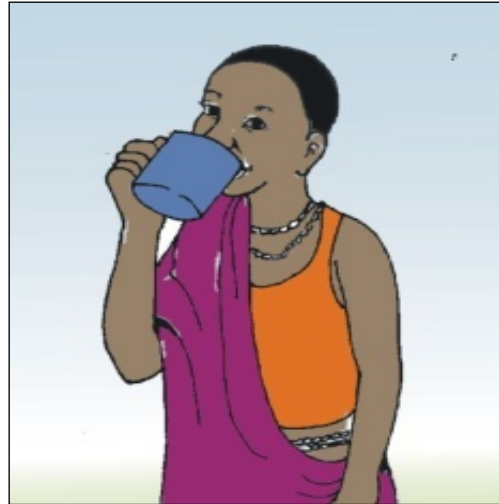
I also wash my hands after going to the toilet.

### ACTIVITY

Show your friends how you wash your hands.

## Unit 2: Water

Look at the pictures. What are they doing?



### ACTIVITY

Draw the pictures. Pick the statements below and write each under its own picture.

## Uses of water

We use water for drinking.

We use water for cooking.

We use water to wash clothes.

We use water to wash our bodies.

### ACTIVITY

Tell the class how you keep your body clean.

How does your family use water?

## Where does water come from?

Water comes from the rain.

Water is found in wells.

Water is found in rivers and swamps.

We can get water from lake or dam.



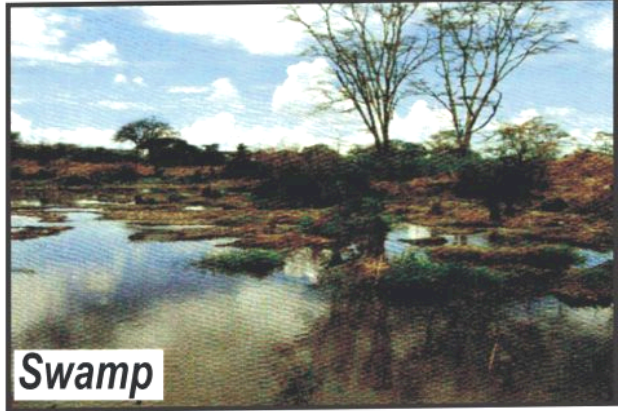
**Lake**



**River**



**Spring**



**Swamp**

## **Please Note**

You should never play near a place where there is water.

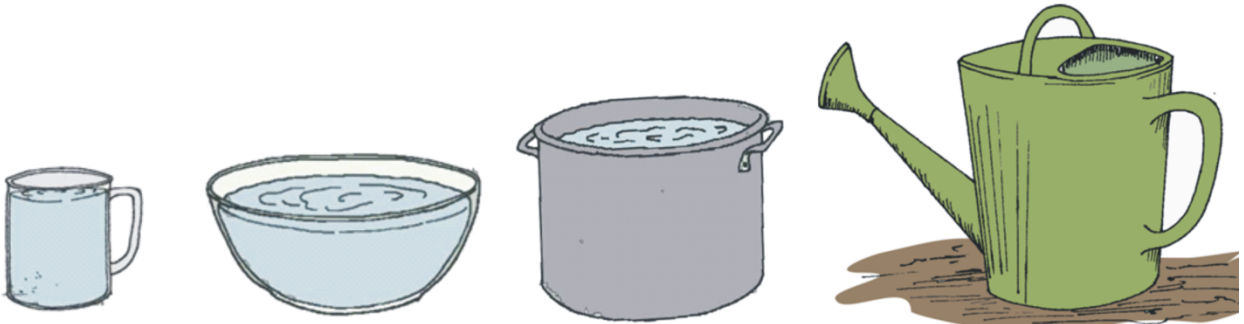
You might fall and hurt or break your body parts.

If youn fall in a river, a lake or a swamp, you can drown and die.

## Measuring Water

How much water do you use in your family:

How can we measure water?



1 cup is smaller than a bowl. It is also smaller than a saucepan.

### ACTIVITY

Use a cup to measure some water.

Count the number of cups as you fill the bowl.

Count the number of cups as you fill the saucepan.

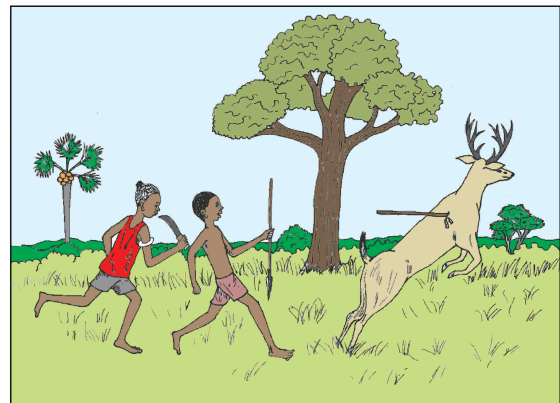
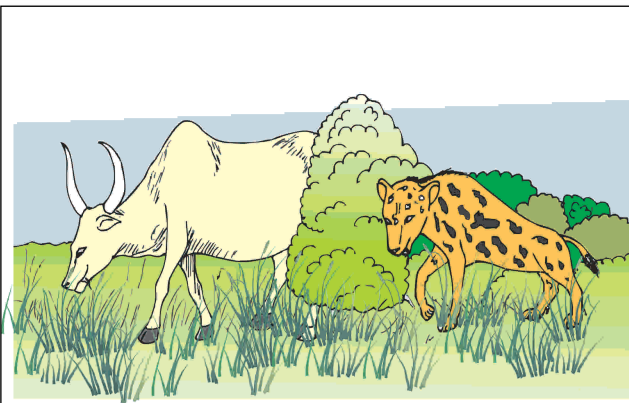
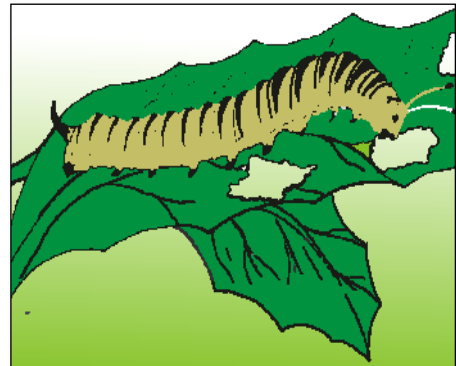
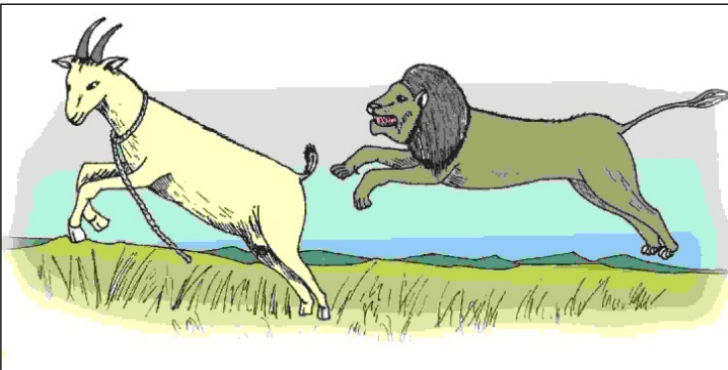
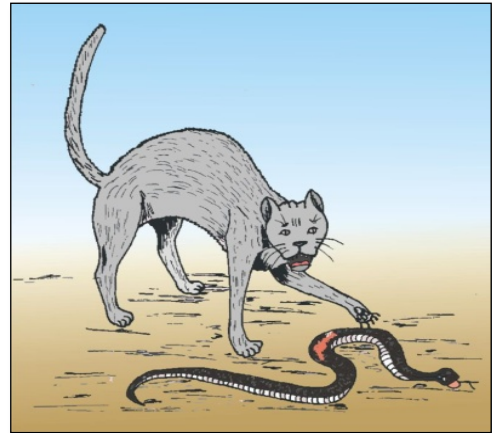
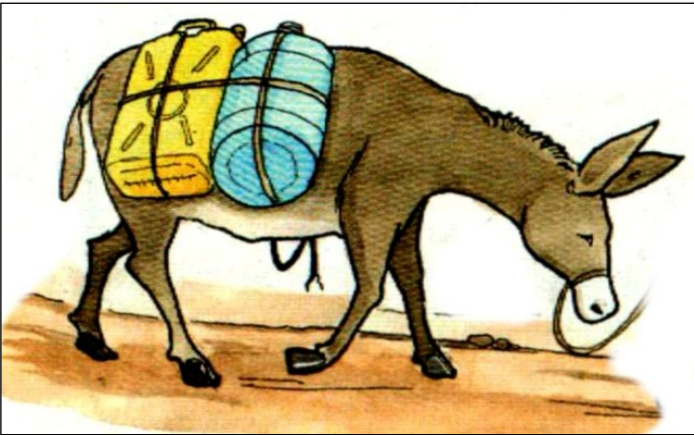
Which one holds more water?: the bowl or the saucepan.

Make a chart and show how many cups fill a bowl, a saucepan and how many bowls fill a saucepan.



# UNIT 3: Animals around us

Can you name these animals?



Discuss with your friends:

- Which animals eat meat e.g. dogs, cats
- Which animals eat plants e.g. cows, goats
- Which eat both plants and meat

**Point to each animal when your teacher says the name.**

Which animals do you see in the area near your camp?

Point to each animal in the picture and say its name.

### ACTIVITY

Draw 1 animal you have in the camp and 1 wild animal you commonly see in the forest.

## Uses of animals

1. Donkeys carry things for us
2. Dogs protect us and our animals.
3. Cats catch rats and kill other pests.
4. Dogs are our friends.
5. Cows and goats give us milk, meat and skins.
6. Hens give us eggs.
7. They also give us meat.
8. Animals give us manure.  
Manure helps our plants to grow.
9. A farmer uses oxen to pull a plough.  
This makes work easier.

## ACTIVITY

Which animals are useful to your people?

Draw 2 animals which are useful to your family.

Which animals are harmful?

Point to them.

## ACTIVITY

Play a game of animal sounds. Make an animal sound. Your friends will guess which animal it is.

Pastoralists make sounds which animals learn.

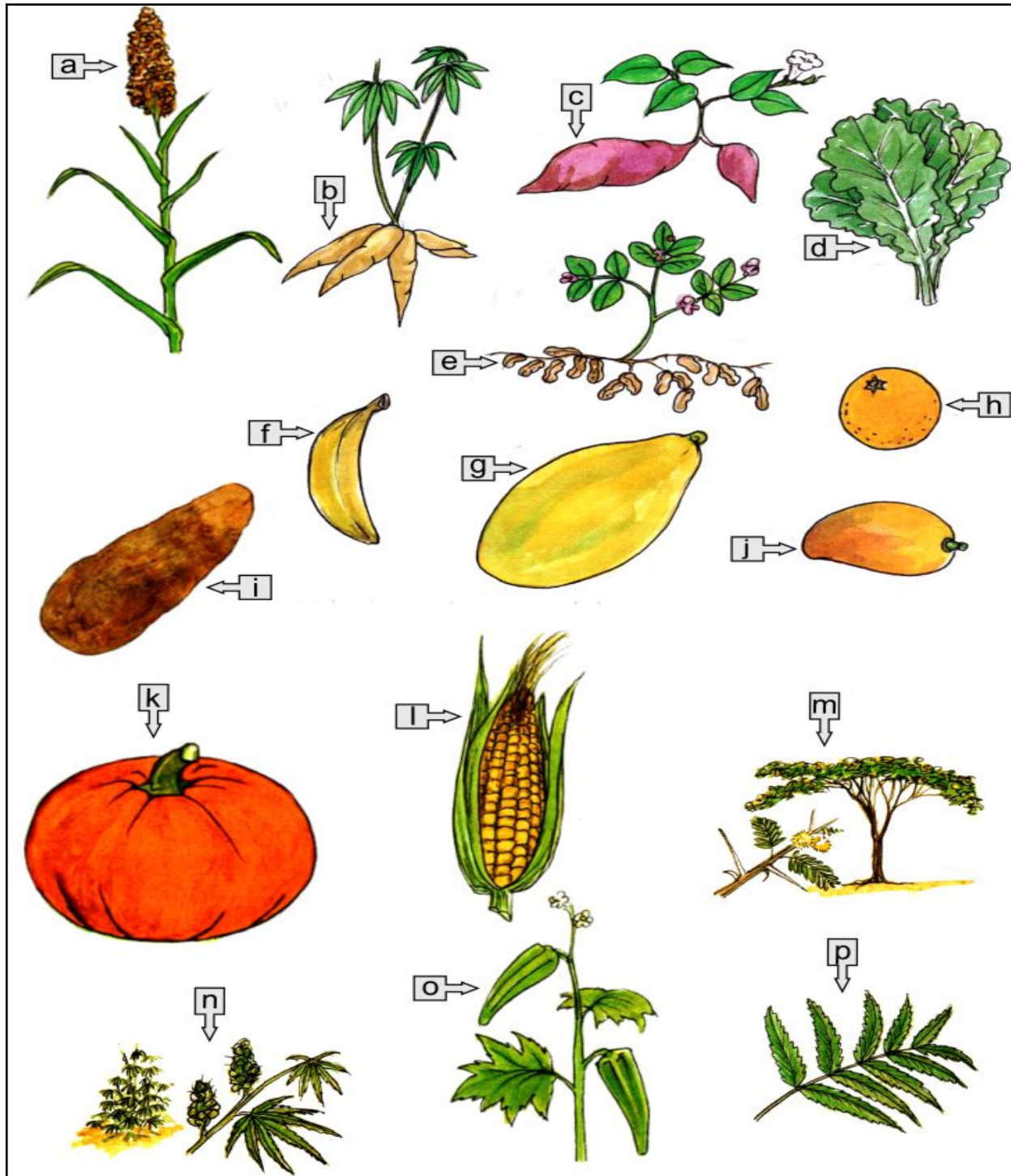
The animals know what each sound means.

## ACTIVITY

Play a game with your friend. One of them will be an animal. The other one will be the owner. Make a sound and the animal will respond

# UNIT 4: Plants

Do you know these plants?



## Discuss in groups

1. What are the names of the plants?
2. Which plants can be eaten as vegetables and fruits?
3. Which plants can be harmful to people and animals?
4. Which plants that can be cultivated in his/her near your cattle camp? vegetables and fruits
5. Which of them can be used as fodder for animals?
6. Which plants can be used as medicine?
7. How do people in your cattle camp get medicine from plants?

Point to each plant when your teacher says the name.

Look at the picture of plants again.

1. Which plants do we cook before eating?
2. Which plants do we eat without cooking?
3. We cook food to make it sweet.
4. When we cook food it becomes soft.
5. Some foods if eaten without cooking can make us sick.

Before eating food that is not cooked, wash it clean.

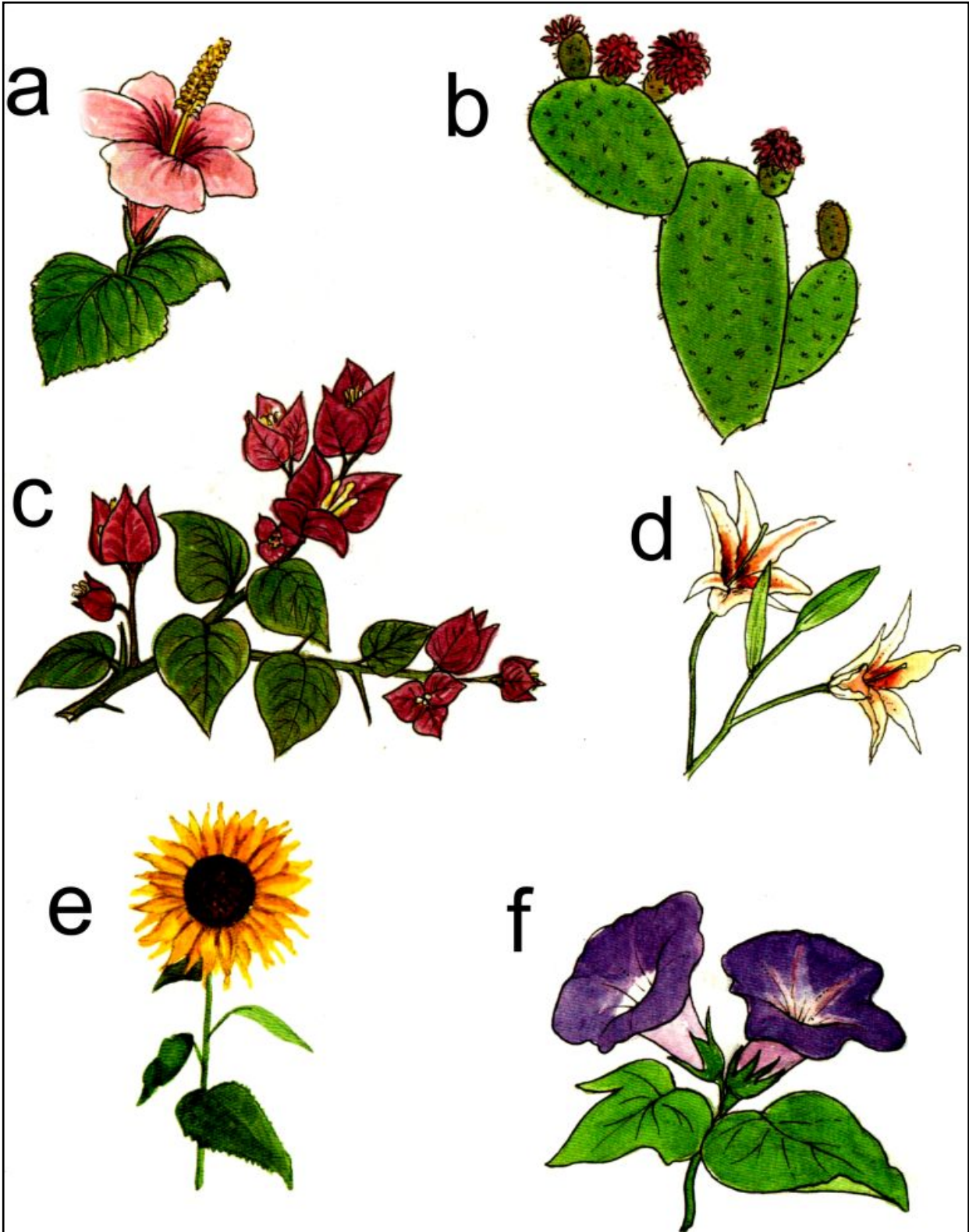
### ACTIVITY

In a group, make a class display of food plants.

Plants that make our homes and schools look good

Name same plants that make our homes and school compound look good.

Do you know these flowers?



## ACTIVITY

Go outside and find

1. Flowers in your school compound
2. Plants that are useful to people
3. Plants that are harmful to people and animals

How do these plants help us?

Eg. 1. Treating diseases

Plants are used as fences

They also give us food.

Trees give us shade.

The Lalob fruit can help when we have malaria.

Neem leaves keep insects out of our grain.

How are these plants harmful?

Stinging nettles hurt our skin.

Thorny trees harm our animals.

The oleander is poisonous. We must never use it to make a cleaning stick.

Tobacco is made into cigarettes.

Smoking is harmful to people.

The leaves and flowers of cannabis are used to make bhang,

Bhang is harmful to people.

### ACTIVITY

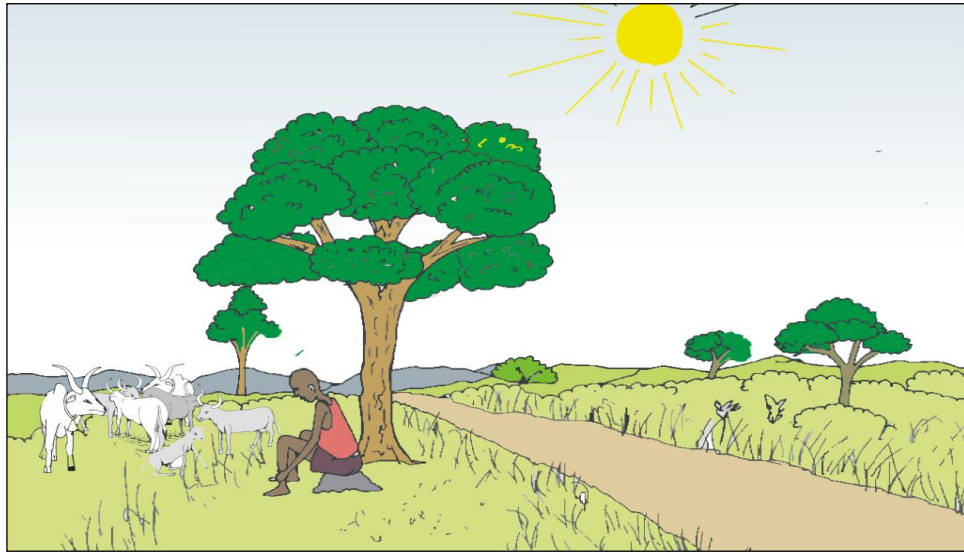
Go outside and find some harmful plants in your school compound.

Point them out. Do not touch them.

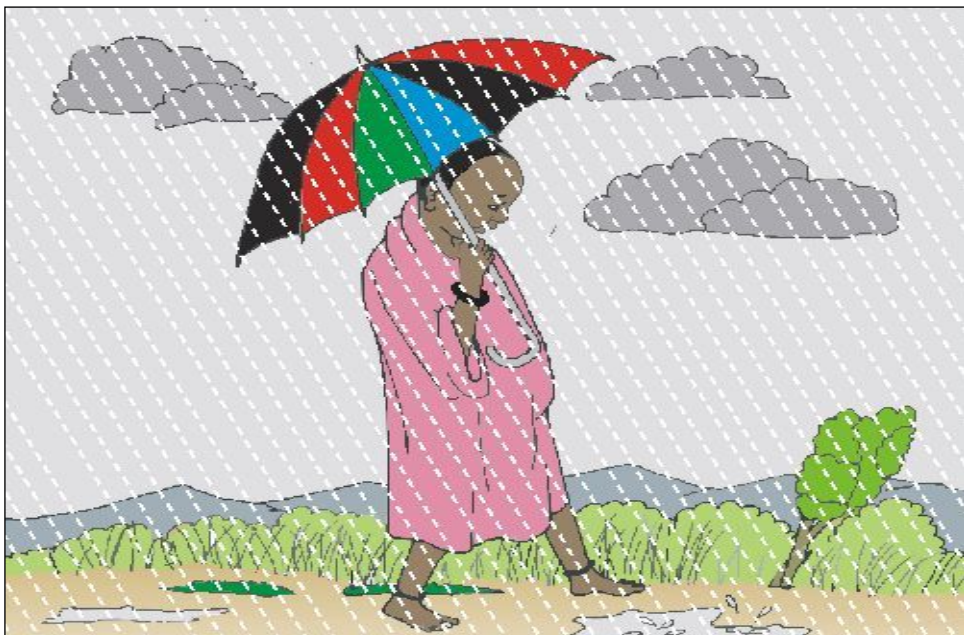


# UNIT 5: Weather

What kind of day is it?



The sun is very bright. It is sunny.



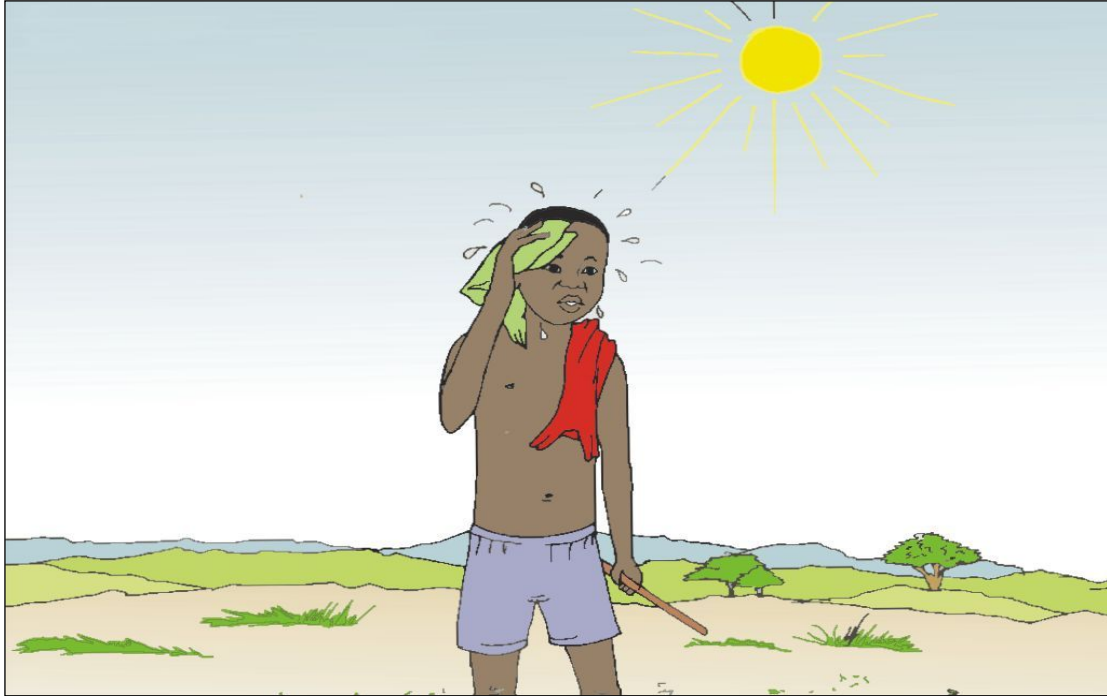
There is a lot of rain. It is rainy and wet.



There is a lot of wind. It is windy.



There are a lot of clouds. It is cloudy and cold.



I am sweating. It is sunny and hot.

### ACTIVITY

Go outside.

What is the weather like today?

Is it sunny, rainy, cloudy or windy?

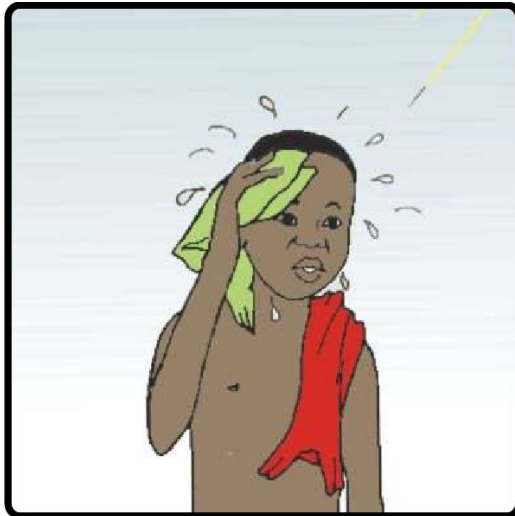
How does each type of weather affect your pastoral life?

For example. How does a rainy day affect you when you are looking after animals in the forest? How does it affect you when you are

moving from one camp to another? How does it affect your other activities like removing the cow dung from the cattle camp?

How does it affect your feeding and your sleeping?

How does it affect your health? Do you fall sick when it is raining?



Which picture shows the weather today?

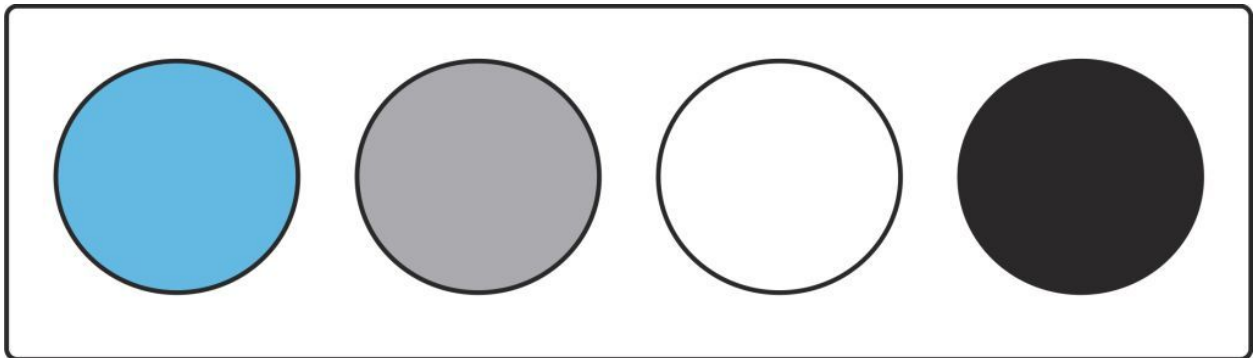
Point to it.

## ACTIVITY

Your teacher will show you a weather chart.

Draw the weather chart for today.

Look at these colours:



Read them aloud.

These are colours of the sky.

They show how the sky is in different weather.

# UNIT 6: Air

## Air is all around us

We breathe in air.

We breathe out air.

Moving air raises dust.

Moving air shakes trees and grass.



The girl can feel the air pushing on her body.



Animals have eaten all the plants and grass.

The wind is very strong.

It carries a lot of dust. The dust gets into the eyes of the boy.

The boy might become sick.

We should not overgraze our environment.

## ACTIVITY

Put your hand near your nose.

What do you feel?

Put your hands on your chest.

Breath in. breath out.

What do you feel?

It is air that fills your chest

We need air to live.

What is in the ball?

The ball is filled with air.

Run very fast.

How are you breathing?



## What air does

Blow air into a paper bag.

What happens to the bag?

The paper bag becomes big

Air pushes the sides of the bag.

Throw some papers up.

What happens to them?

Air pushes the papers up.

It helps to hold them up for a short while.

### ACTIVITY

Discuss in groups how air helps people.

How can air be harmful to people?

How can we prevent air from being harmful?

## Moving air

Moving air is called **wind**.

Look at the picture.

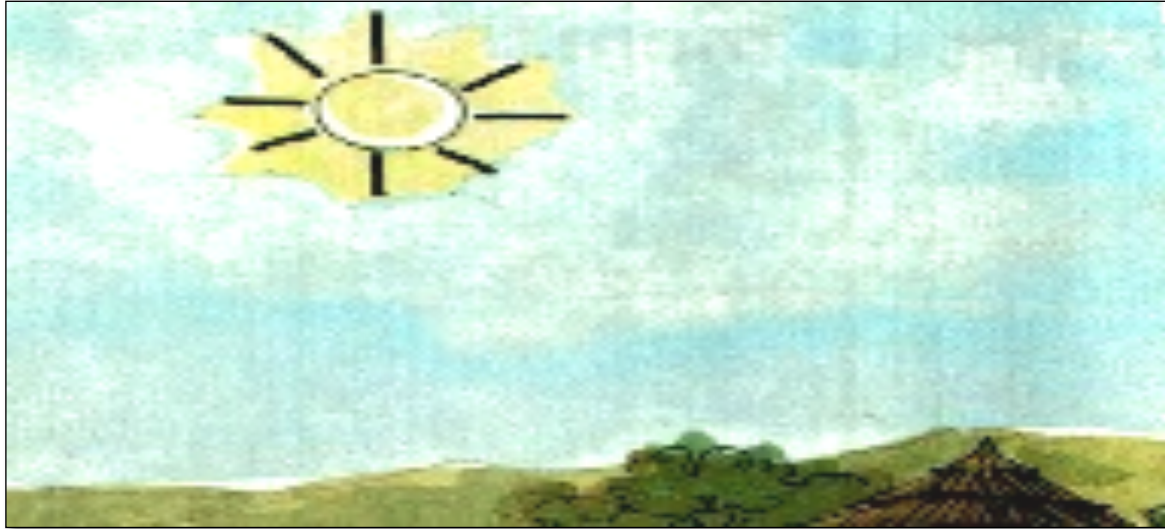


### ACTIVITY

1. Name the things moved by the wind in the picture above.
2. Draw a picture of a feather flying in the wind.
3. How does the air affect your life?
4. How does it affect the life of the plants around you?
5. How does it affect the lives of your animals?

# UNIT 7: Light

## Source of Light



Where does light come from?

In the daytime, the sun gives us light

At night, the moon helps us to see.

We cannot see without light.

Things that give us light are called **sources of light**.

At night we can use these sources of light to help us see.

### ACTIVITY

Draw three things that give us light.

Discuss how each source of light help you as pastoralists

Learn a poem about the sky. The teacher will help you.

# UNIT 8: Soil

## Modeling with soil

Some soil can be used to make things.

Making things using wet soil is called modeling.

Some soil is good for modeling.

It is called clay soil.

Try to roll some wet soil into a snake.

### ACTIVITY

#### **Can you roll the soil?**

Make a man, a hen, a pot, a jug, a cup, a cow.

Make numbers 1, 2, 3, 4, 5, 6, 7, 8, 9

Make letters a, b, c, d, e, f, g, h

#### **Writing and drawing on the soil**

Find a flat area

write numbers 1, 2, 3, 4, 5, 6, 7, 8, 9

write letters a, b, c, d, e, f, g, h

Show your teacher and your friends what you have made.

# UNIT 9: Sound

Do you hear these sounds in your cattle camp?

Mooooo

Meauuuu

Gugugugu

What other sounds can you hear?

Pretend you are a parrot. A parrot repeats what it has heard. Make the sounds you can hear and your classmates will say what makes the sound.

e.g.

1. Birds sounds
2. Sounds made by people looking after animals
3. Sounds made by somebody doing irrigation
4. Noise made by children playing.
5. Sound made by people calling for help.
6. Noise made by people quarreling.

**Take turns to sing a song. Do as the song says**

*Can you hear the sounds*

*Can you hear the noise of children playing?*

*Can you whistle? Take turns to whistle a song.*

Musical objects produce music.

These objects are called musical instruments.

How many musical instruments do you know?



1. Which instruments make a loud sound?
2. Which instruments make a soft sound?
3. What is the difference between sound and noise?

## ACTIVITY

Use different musical instruments to produce sound.

# UNIT 10: Our Senses

## Smelling

We smell with our noses.

Some things smell nice.

Some things smell badly.

Some things have no smell.



Look at this Picture.

Discuss with somebody from your class what would happen if.



1. We do not remove cow dung from the cattle dung?
2. We keep dead animals in the cattle camp?
3. If people go to the toilet just behind your class?



## Tasting



Can you tell what you are tasting if your eyes are shut?

We taste with our tongues.

Some things taste sweet. Some things taste bitter.

Some things taste sour. Some things have no taste.

### ACTIVITY

Play a game of naming things without seeing them.

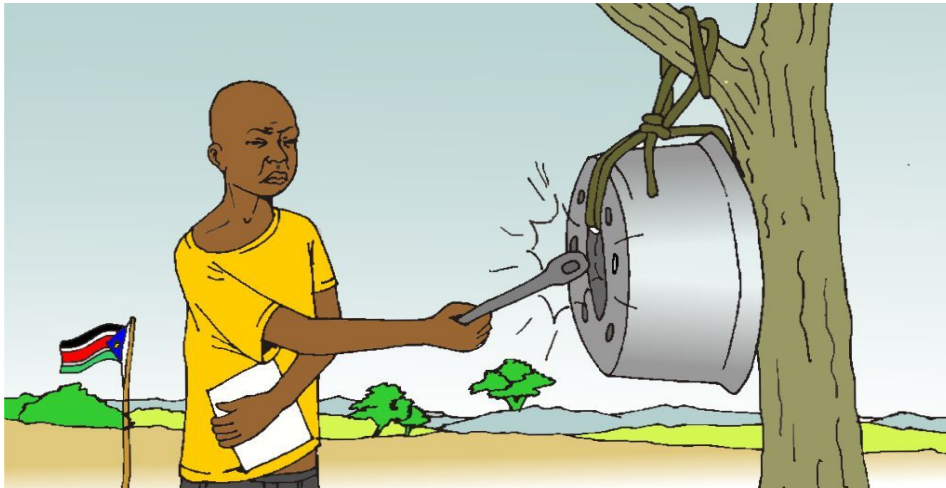
Close your eyes. Your friend will give you different types of food to taste and smell. Can you name the food correctly?

## Hearing

We hear with our ears.



Some sounds are soft.



Other sounds are too loud.

## ACTIVITY

Play a game about loud and soft sounds.

### Seeing

How do we see?

We see with our eyes.

When our eyes are closed. We

Cannot find our way.

Is it easy to find your way

When you cannot see?



### Touching

What is this boy doing?



What can this girl feel?



We feel with our hands.

We feel things that touch our skin.

We also feel things that we touch our skin.

We also feel things that we touch with our hands.

### ACTIVITY

Play a game about feeling with your hands.

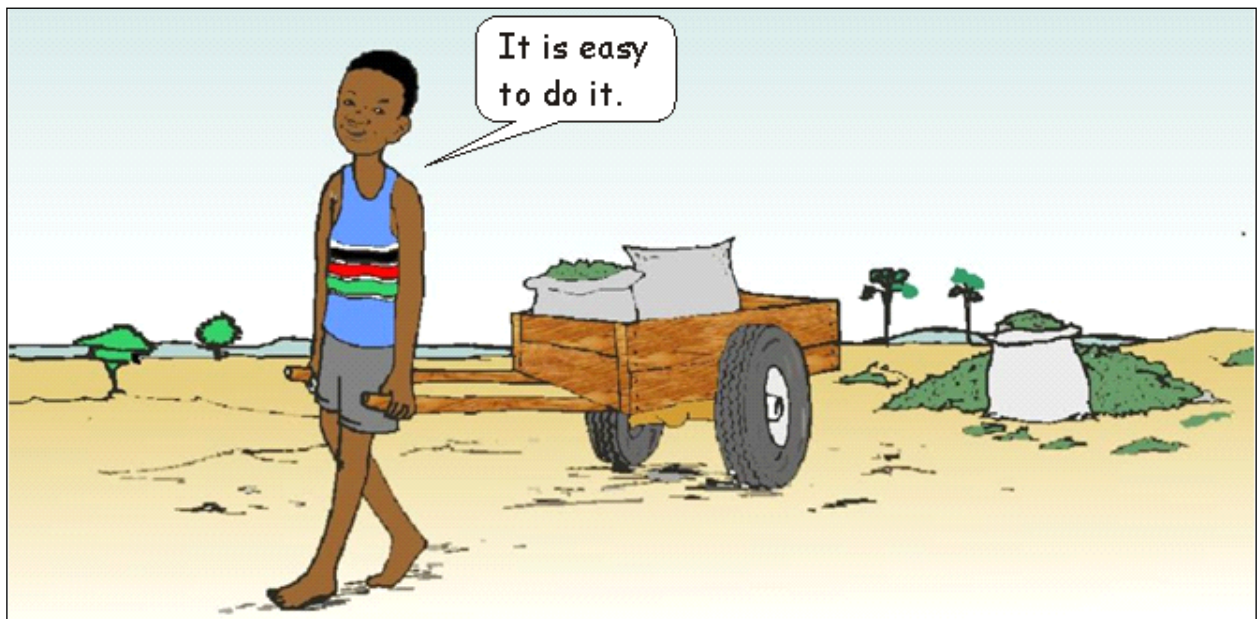
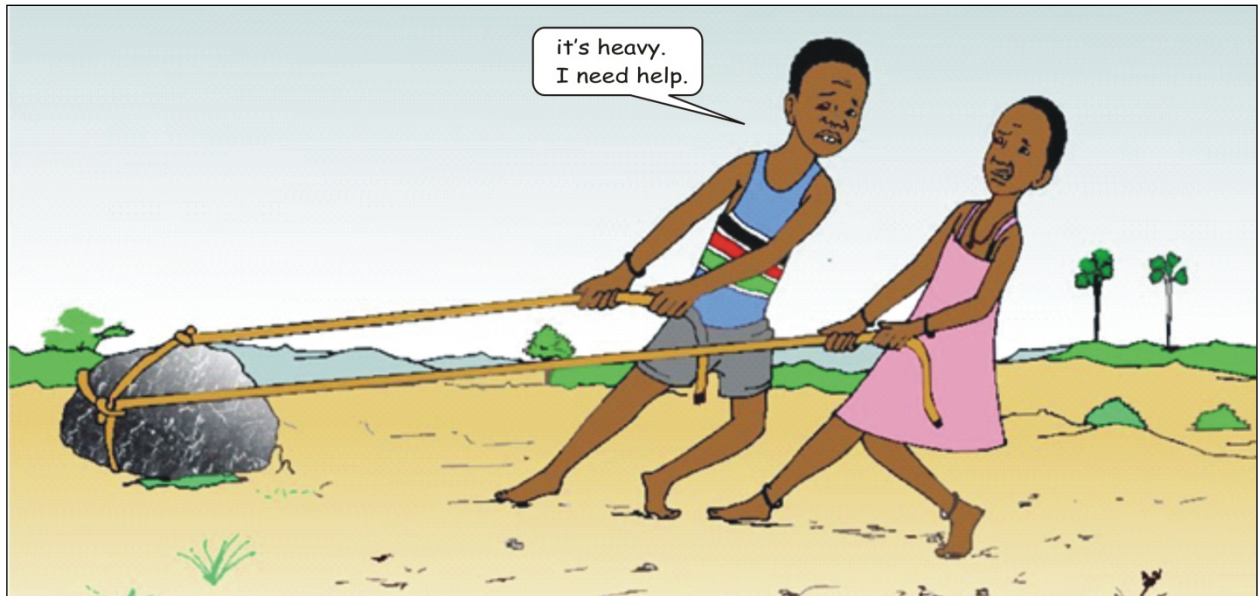
Close your eyes. Your friend will give you an object.

Feel it. Can you say what it is?

# UNIT 11: Making work easier

## Wheels

Is it easy to move a big stone?



Technology makes work easier.

An ox plough makes digging easier.

A mobile phone sends messages faster and easily.



We can use different things to make wheels.

- rubber cut from old tyres
- tin lids
- the tops of plastic bottles
- wires



## ACTIVITY

Discuss with your friends the technology you can use in the cattle camp to make your work easier