

South Sudan

Science for PLEFS

Pupil's Book 2



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

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UNIT 1: HEALTH EDUCATION

CARING FOR THE PARTS OF MY BODY

A Poem

I wake up in the morning

I wash my hands

I wash my face

I brush my teeth with salt and water

I comb my hair

All before I take my breakfast.

Before I sleep

I wash my body

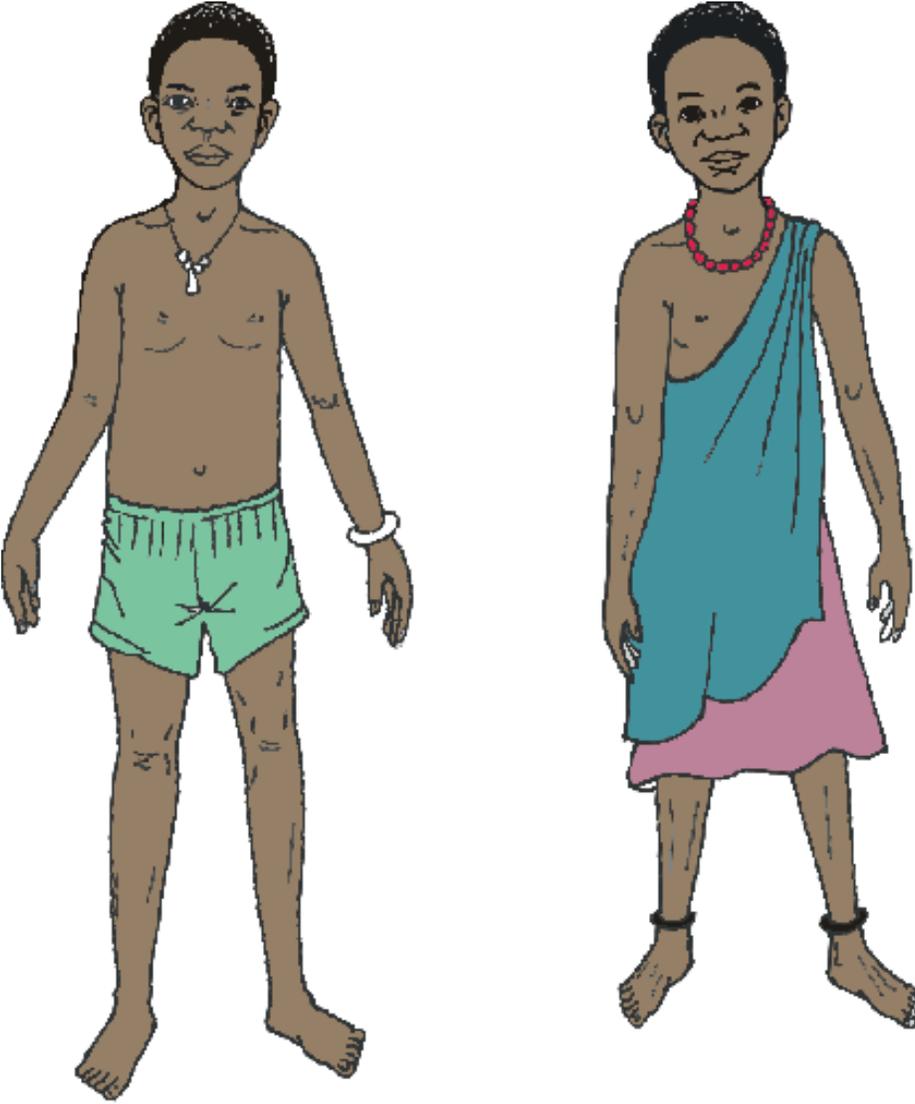
I scrub my feet

I wash my hair

And brush my teeth again

What are the different parts of the body?

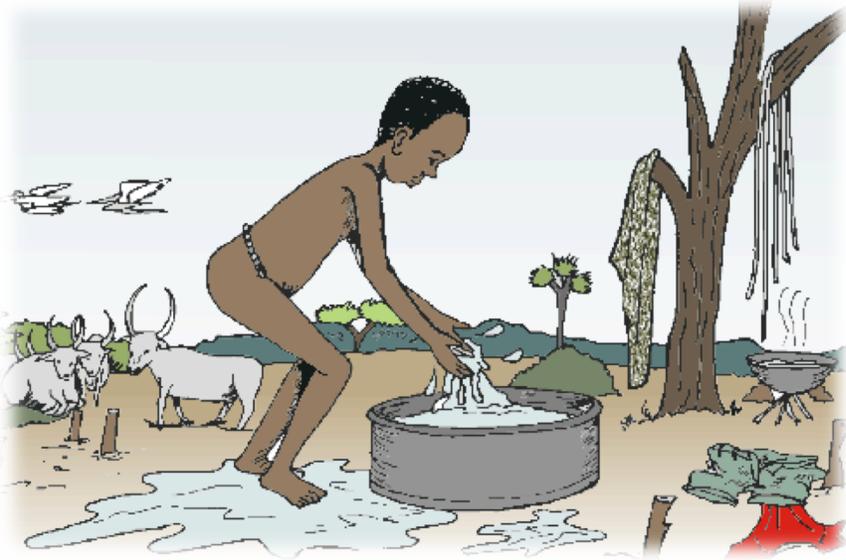
Say them and point to them.



How do you take care of the parts of the body?

We should always keep the body clean.

How to wash the body



We keep the body clean by washing it.

We use soap and water to wash the body.

We should wash the body every day then we will be clean and healthy

Why should we wash the body?

We wash the body to remove dirt and germs.

Germs can make us sick.

ACTIVITY

What do you use to wash your body?

Draw a picture of a basin of water and soap.

The Teeth

What do we use our teeth for?

The teeth are part of our body.

We clean the teeth after eating food.

We also clean teeth before
going to sleep.

We brush our teeth to keep them clean and healthy.

To clean the teeth we use:

- Toothpaste or salt
- A toothbrush or a cleaning stick
- Clean water



PLEASE NOTE

Never use somebody's toothbrush or stick that belongs to somebody else.

Do not allow anybody else to use your toothbrush or stick. You can get diseases from another person when you use his or her brush. Disease germs like HIV can get to your body when you use a brush of somebody who has the germs. If he or she has a wound in the mouth, the blood might be in the brush. If you hurt yourself when brushing, you will get the blood from a sick person. You can also get other diseases from a toothbrush. Do not share it.

When brushing your teeth, brush up and down. Brush the inside of the upper and lower teeth. Brush your tongue also.

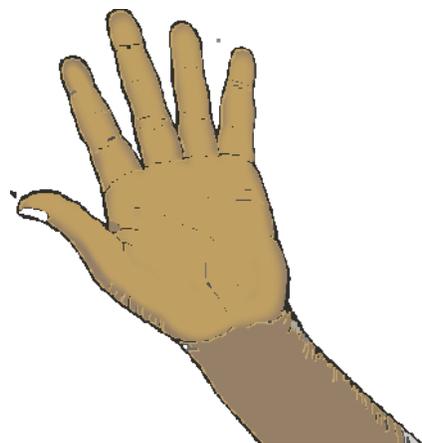
Rinse your mouth with clean water.

The Hands

Look at this picture. What are they for?

List the things they are used for in the cattle camp.

Draw a picture of how you take care of them.



Discuss the following in groups

1. When do you cut your finger nails?
2. When do you wash your hands?
3. When do you wipe your hands to remove dirt?

The Feet

The feet are important to us as pastoralist.

Use the words in the box to fill in the blank spaces

move with our animals
fetch water
walking
ran away

When we are herding, we see bad animals.

We use the feet to _____



When it is dry we use our feet to _____
to another place where there is grass.



We use our feet to _____ when we are in the cattle camp.



Sometimes we use our feet to _____ from the river.



Taking care of our feet



We keep our feet clean by washing with soap and water.



We use ash to keep away mosquitoes from our feet.



Sometimes we use leaves to keep our feet healthy



We cut the toe nails to make them clean.

The Hair

Look at the pictures. What do you see?



Which one do you use?

What else do you use for your head?

We must keep our head clean all the time.

Dirty hair can bring lice.

It can make our heads to have dandruff.

This will make us scratch our heads.

We keep our hair clean and tidy by:

- Washing it
- Combing it
- Keeping it smart
- Cutting it

- Plaiting it.

Personal Items

We need to take care of our personal items.

Match the words with pictures to show how you can take care

	<p>Use a clean comb</p>
	<p>Use a clean handkerchief</p>
	<p>Wash your tooth with water and salt. Do not give it to somebody else</p>
	<p>Keep away mosquitoes and flies by burning cow dung. Flies and mosquitoes cause diseases.</p>
	<p>Wash your body after removing cow dung from the cattle camp</p>

ACTIVITY

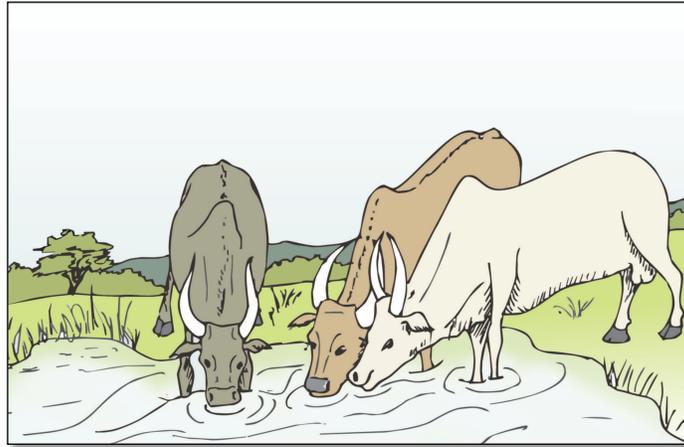
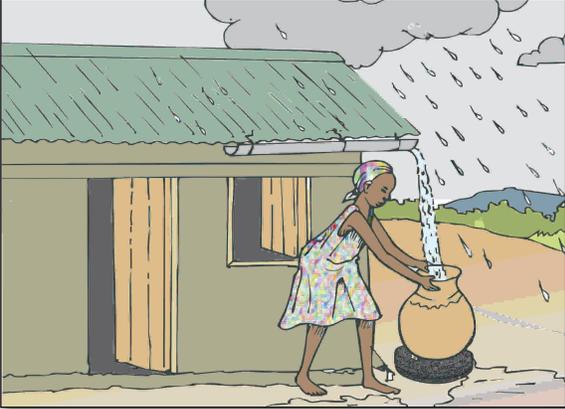
Draw some pictures of your personal items.

Topic 2: WATER

Where does water come from?

Look at these pictures. What are they doing?





Discuss in a group

1. Where do you get water from when you are in the cattle camp?
2. Where do you get water from when you are migrating?
3. Where do you get water from when you are in the village?

What do we use water for?

Match pictures with the words



A woman cooking



Growing crops



A girl drinking water from a cup.

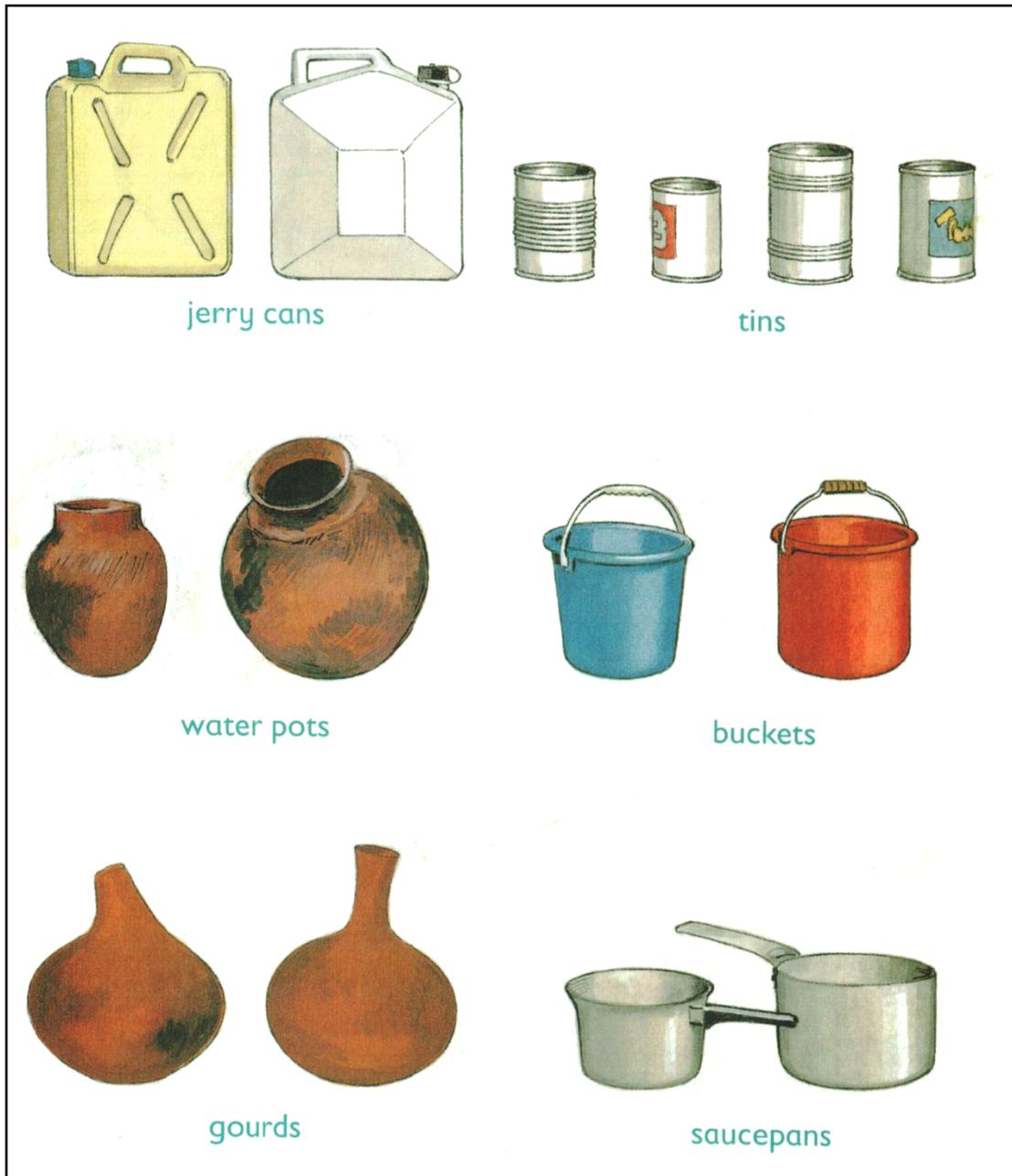


A boy washing a shirt

Water Containers

We can store or measure water using many containers.

Look at the containers below



Keeping water containers clean

Before you put water into a container, wash it clean.

Never use petrol or paraffin containers to store water for drinking.

Containers with this sign should not be used for storing water.

Put your water containers out to dry.

Put them in a clean place where there is no dust.

What do you use in the cattle camp?

Making water clean

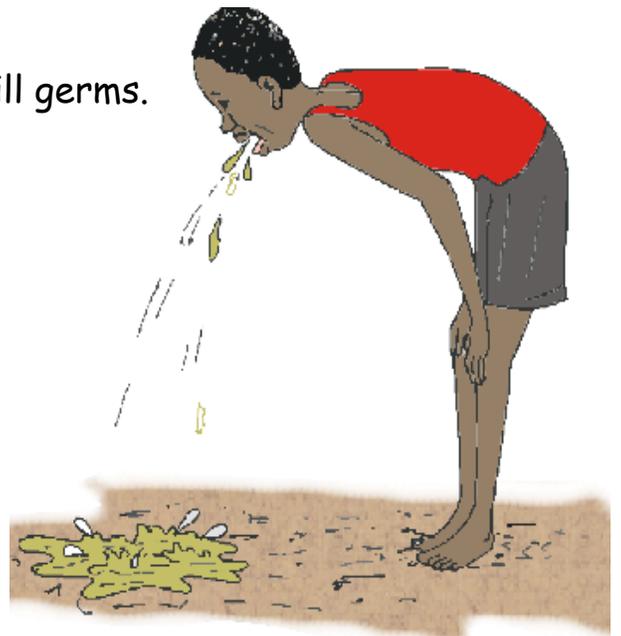
Why should we clean our water?

We clean our water to remove dirt and kill germs.

Dirt and germs are found in dirty water.

The germs and dirt can make us sick.

If you drink dirty water you may start vomiting.



Dirty water can also make you get diarrhea.

Dirty water can give us diseases like typhoid and cholera.

To prevent diseases we must clean our water.

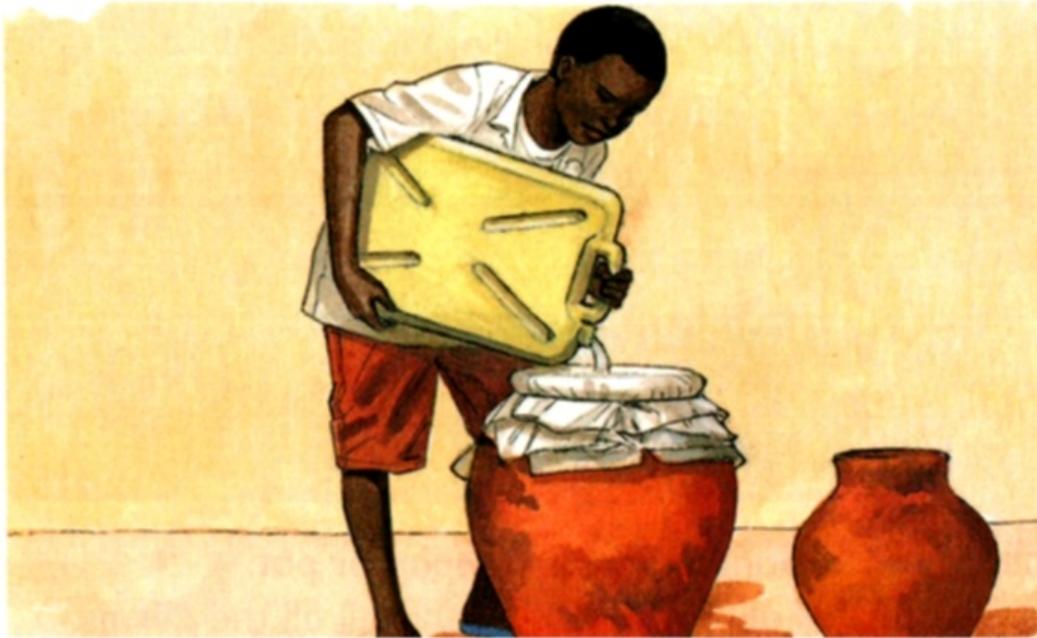
How can you clean water?

We can clean water by filtering it.



To filter, you use:

- A clean cloth. Fold it and tie it on top of your water container

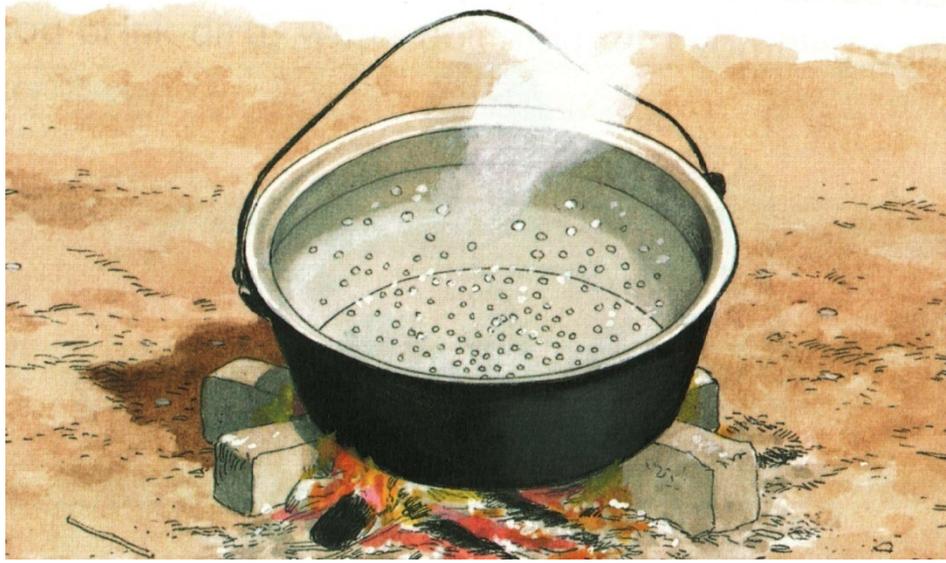


- The container must be clean.
- The dirty water is poured from the container. It is poured through the cloth to the clean container.
- The dirt will be left on the cloth.

Please note

Filtered water is clean. It is safe for drinking. It must be boiled to make it safe for drinking.

Boiling water kills germs that make people sick.



ACTIVITY

Look for a clean cloth. Filter dirty water to make it clean.

Exercise

You can _____ water to make it clean.

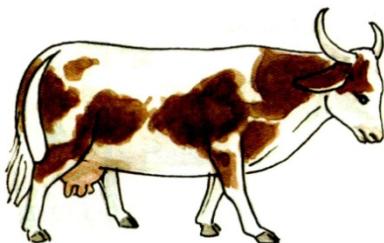
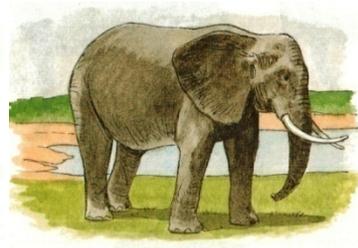
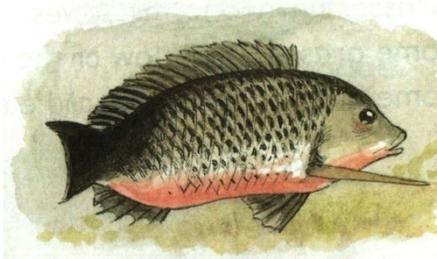
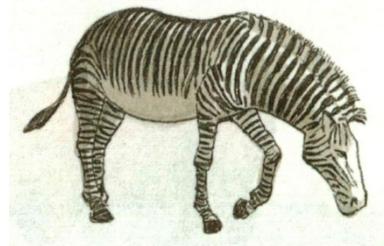
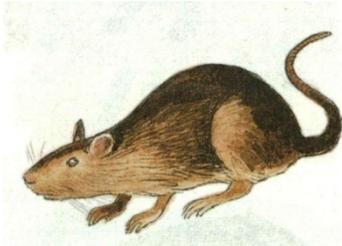
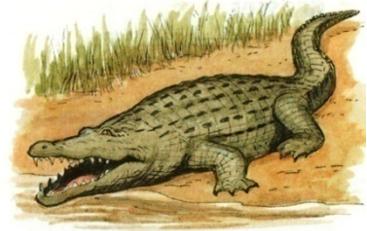
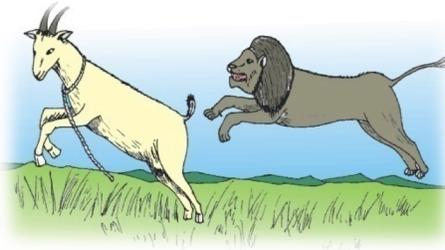
Clean water is _____ for drinking.

You can get cholera and diarrhea _____ from drinking water.

We must always _____ our water to make it safe.

TOPIC 3: ANIMALS

Look at these animals



Do you know their names?

Tell your friend the ones you know.

Which of these animals have you ever seen?

Do you know where each of them lives?

Put them where they live in the table below. You have been given two examples.

Animals that live at home	Animals that live in the forest	Animals that live in water
e.g a goat	e.g a lion	

Animals that live at home are called farm animals. They are also called domestic animals.

Animals that stay in the forest are called wild animals.

Animals that live in water are called water animals.

ACTIVITY 1

Draw 1 farm animal which you like so much.

This must be an animal that stays with you in the camp

ACTIVITY 2

Draw 1 wild animal which you like so much.

ACTIVITY 3

Draw 1 water animal which you do not like.

DISCUSS IN GROUPS

Tel your friend which animal you have drawn.

Tel your friends why you like those animals.

Tell your friends why you do not like those animals.

Each one of you will answer and tell others.

See if there any body else with animals like the ones you have.

TOPIC 4: PLANTS

Look around your cattle camp. How are the plants there. There are different types of plants.

- Grass
- Vegetables
- Shrubs
- Trees

GRASS

Grass has long, thin leaves.

Some types of grass grow on the ground.

Other types grow tall above the ground.

Look at these different types of grass



Sorghum (Dura)



Maize



Elephant Grass

Which of these grow near your cattle camp?

Which of these have you seen during your migration?

VEGETABLES

These are plants with some parts which are eaten by people.

Look at these vegetables



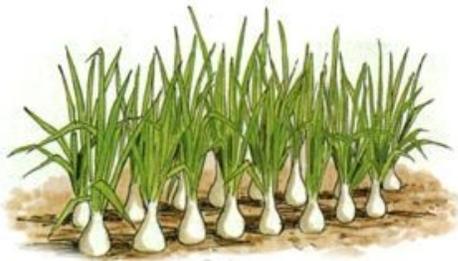
Pumpkins



Cabbage



Peas



Onion



Sukuma Wiki



Okra

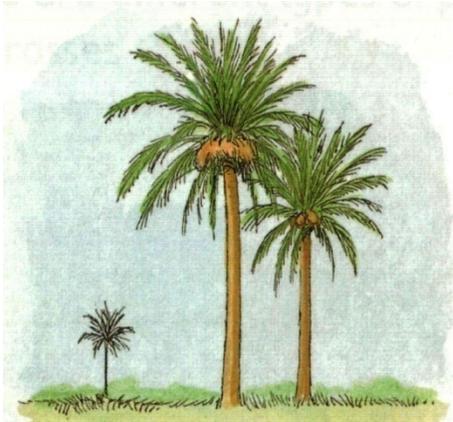
Which of these grow near your cattle camp?

Which of these have you seen during your migration?

TREES

Trees have one main stem. Branches grow from the main stem.

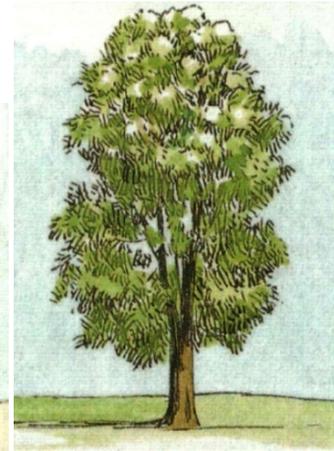
Look at these trees



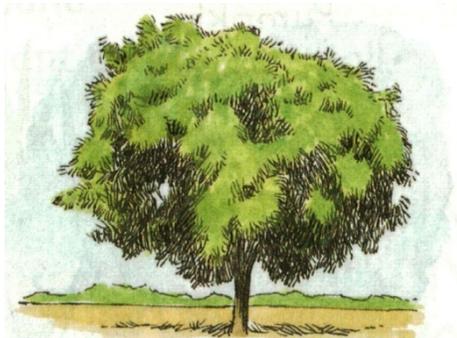
Palm Tree



Mango Tree



Mahogany



Neem



Guava

Which of these grow near your cattle camp?

Which of these have you seen during your migration?

SHRUBS

Look at these shrubs



Hibiscus



Coffee



Tea

Shrubs are smaller than trees.

They have more than one branch growing near the ground.

Which of these grow near your cattle camp?

Which of these have you seen during your migration?

CLASS ACTIVITY

Name the different parts of your nature corner as:

1. Grass
2. Vegetables.
3. Trees.
4. Shrubs.

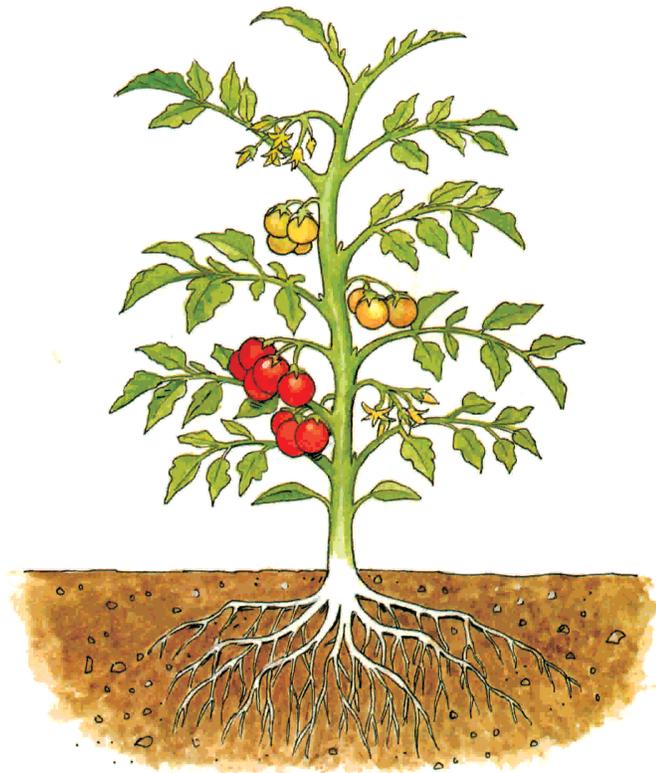
Collect plants of different types. Put each of them at the correct place.
Agree as a class whether each of them has been put at the right place.

PARTS OF A PLANT

Look at this plant.

The plant has:

- Leaves
- Flowers
- Stem
- Fruits
- Roots



ACTIVITY

Draw the plant in your books. Put the parts listed above.

Some plants are very useful to us.

Some plants like vegetables are eaten as food.

Other plants are used as fodder for animals.

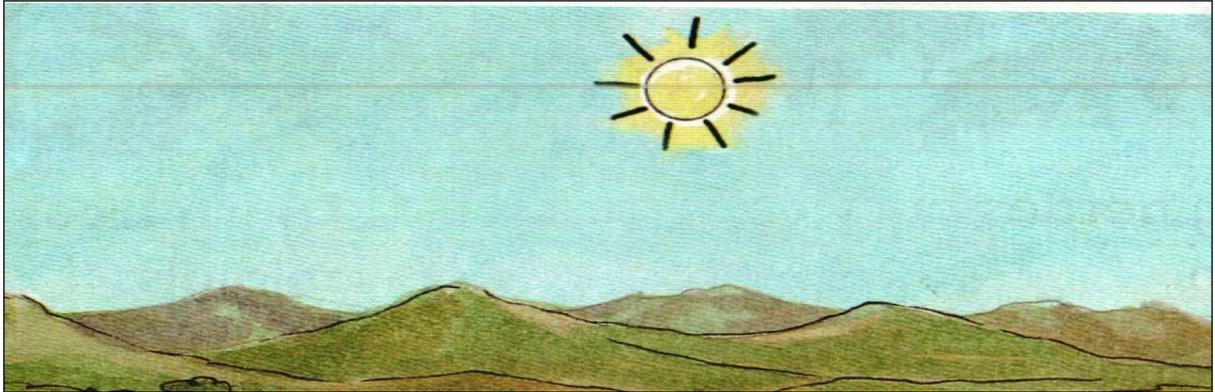
Some plants are poisonous. They cannot be eaten by people or animals.

Some are medicine for people and for animals.

EXERCISE

1. List food plants grown near your camp.
2. List other plants you have seen during migration.
3. Apart from food, how else do the plants help the pastoralists?
4. List plants that are harmful to people and animals. e.g bhangi is a harmful drug.

TOPIC 5: WEATHER



How do you feel when it's sunny?

What can't you do when it is very hot?





How do you feel when it's raining?

What can't you do when it is raining heavily?



ACTIVITY

What kind of day is it?

Draw picture of a cloudless sky and sun above

Draw a rainy day

Windy day-trees bending

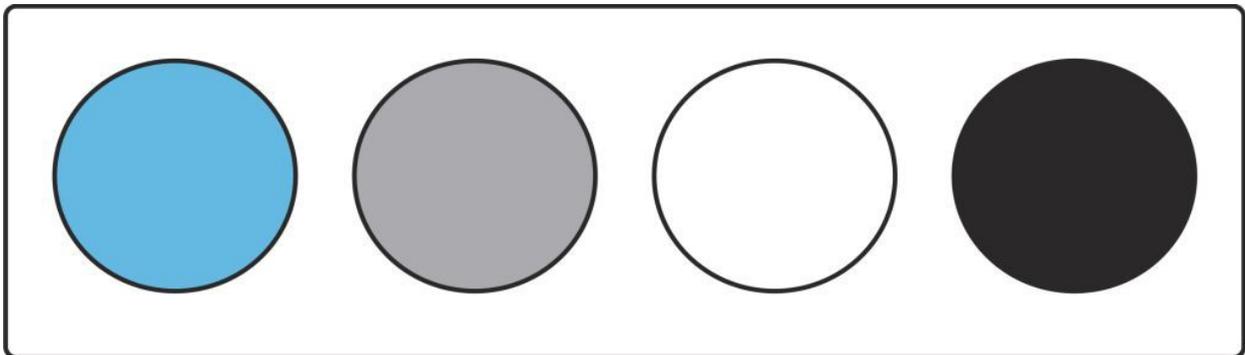
Cold day-children huddled together. They all have sweaters and some jackets

ACTIVITY

In class one you learnt how to read the 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.

ACTIVITY

Go out and look at the sky.

How many of these colours do you see?

What does it tell you about the weather?

Do you think it is going to rain today?

Tell your friends why you think this way.

CLASS ASSIGNMENT

Draw a weather chart for one week. Every person should record the weather once. It will look like this. Make for another week and allow those who have not recorded to do so.

DAY	MORNING	AFTERNOON
MONDAY		
TUESDAY		
WEDSDAY		
THURSDAY		
FRIDAY		

DISCUSSION

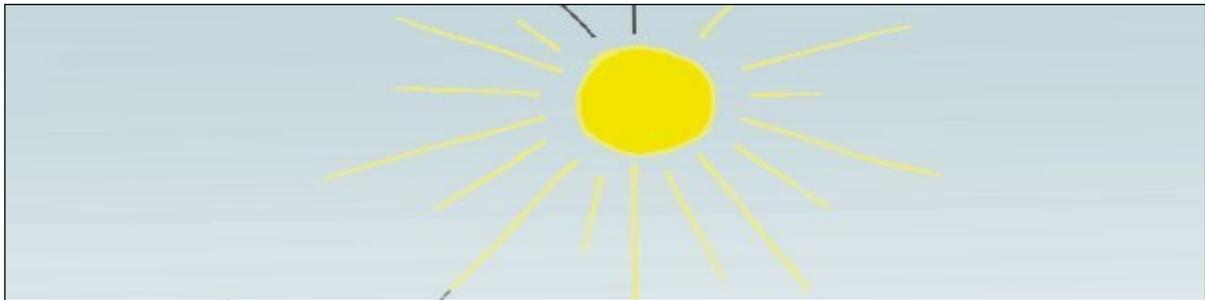
Tell your friends why it is important for pastoralists to know how to read the sky and tell the weather.

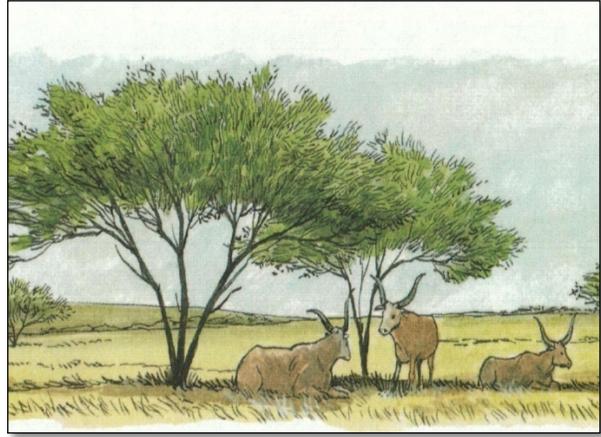
Tell your friends how each type of weather affects you.

For example, how do you feel when you are moving with animals and it is very hot.

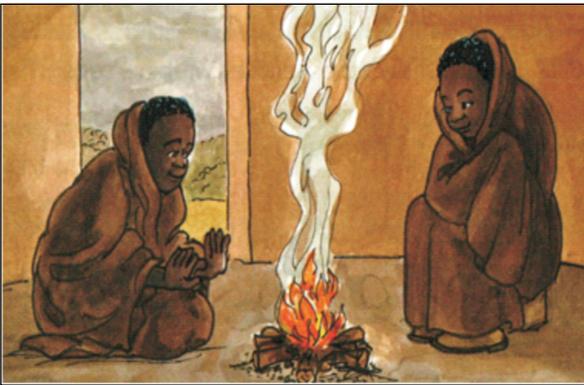
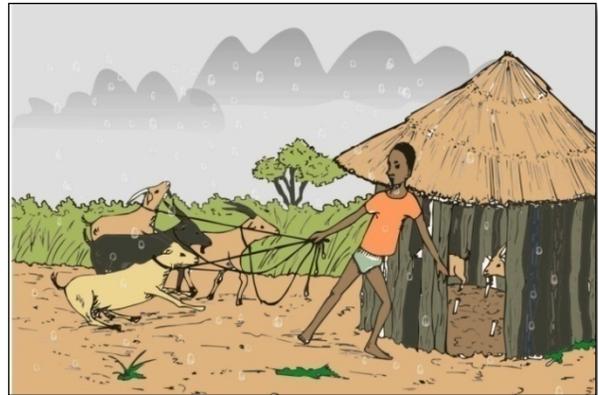
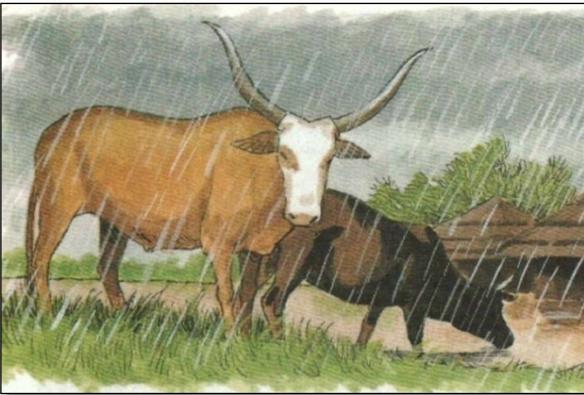
How can you benefit from weather if you are able to read the signs?

How we act in different weather conditions

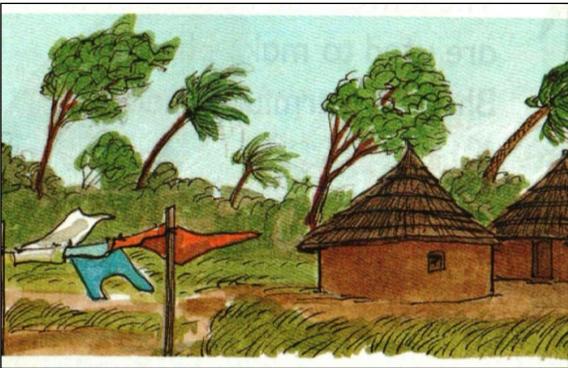




Which of these people are doing good work?



Which of these people are doing good work?



You should take care in the windy weather.

A moving object can hurt you.

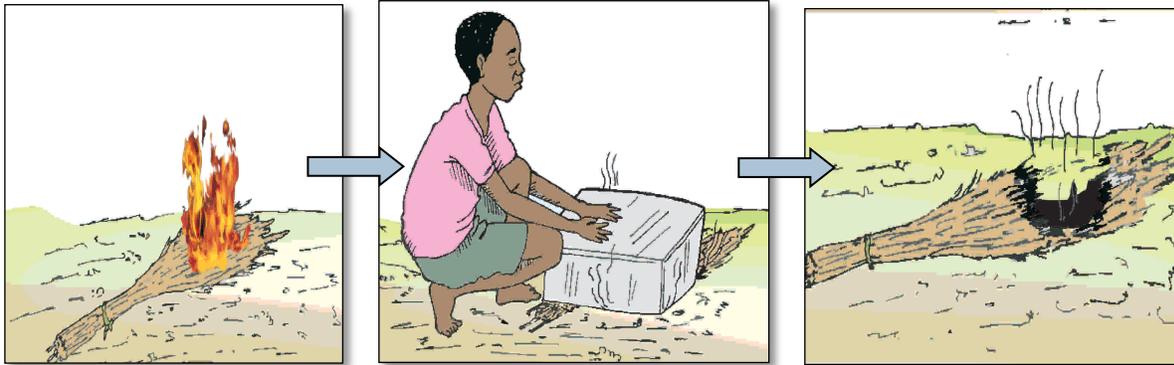
GROUP ACTIVITY

Each group to pretend to be a different type of weather.

Go round the class attacking other people. Others to respond to the attack. For example if rain attacks you, you can start coughing, others shivering, others sick.

TOPIC 6: AIR

Look at these pictures.



Why do you think the fire has stopped burning?

Now close your nose with your fingers.

How long did you stay?

How did you feel?

All living things need air.

Air is very useful to us.



Look at these animals.



Work in groups.

Tell one another how air is important to you.

Tell one another how air is important to your animals.

Tell one another how air is important for growing crops.

Tell one another why you need air in the cattle camp.

TOPIC 7: SOIL

Look at these pictures.



What are these people doing?

Look at the soil where the people are. Each has a different colour.

Now go to the PLEFS garden. Look at the soil there. Touch it.

What is the colour of the soil?

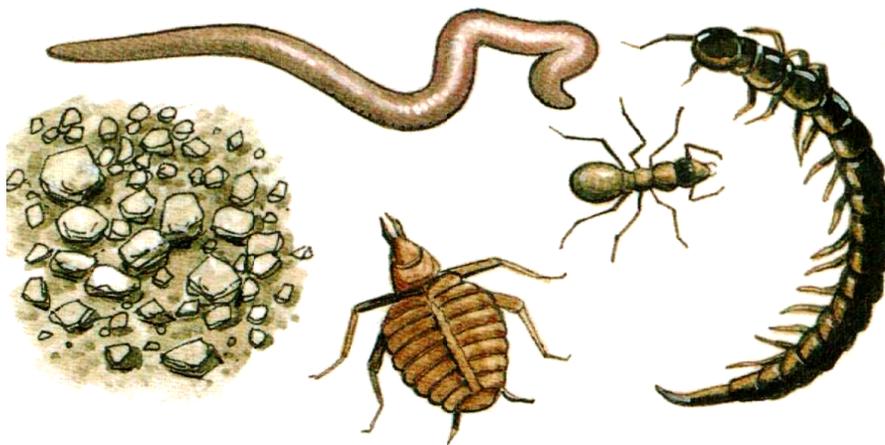
When we dig the soil we find:

Some pieces of plants.

There could be sticks which are getting rotten; you may find leaves or even roots.



There are also small animals.



All these are the ones that make up the soil.

USES OF SOIL

You have seen to soil in the PLEFS garden. Maybe there are crops planted. If you remove the crops from the soil what do you think will happen to the crops? When you remove soil from crops, it is like removing food from a person. How many days do you think you can live without eating food?

What will happen if you cannot get food to eat?

You will grow thin. Your body will become weak. Then you will die.

This is what happens to crops. The soil and those things in it are its food. Those worms eat the leaves and the sticks. They break down. They become rotten. They mix with the leaves and other things thrown into the soil. If you throw cow dung into the soil it will become part of the soil. All these things make the soil fertile. It is good soil for growing crops.

Look at these pictures. Match the pictures with the sentences



These are cooking pots



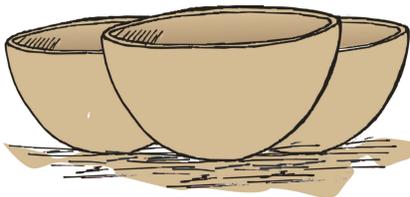
This is a mud house



These bricks are good for building houses



These are water pots



The children are making animals using clay

ACTIVITY

1. Look for different types of soil. Bring it to the nature corner.
2. Make patterns using a stick on the soil. See who makes most patterns you or your friends.
Tell your friends how soil has helped you and your family.
3. Put cow dung in the soil in your PLEFS garden.

EXERCISE

Pick the correct ones

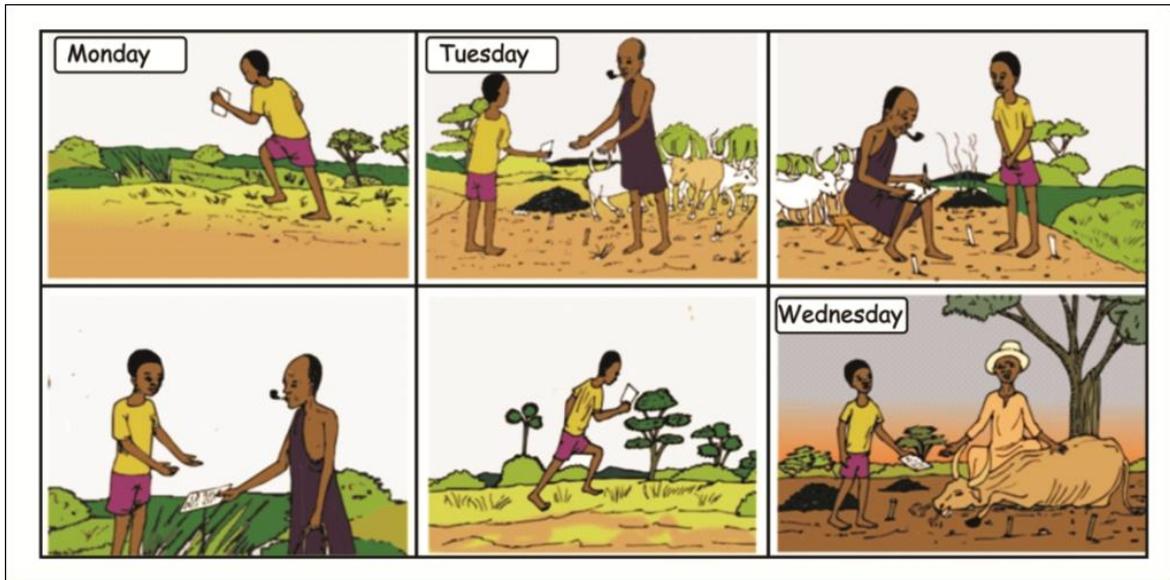
1. These things make the soil to be good for farming.
(roots and dead leaves, plastic papers and bottles, dead leaves and bottles)
2. There are _____(many types, two types, three types) of soil.
3. Soil _____(has no colour, is always brown, has different colours).

Pick the ones that are not true

1. You can make _____using soil. (true pots, good bricks, a true cow, mud house)
2. Soil is _____(not good, good, important) to us as pastoralists.

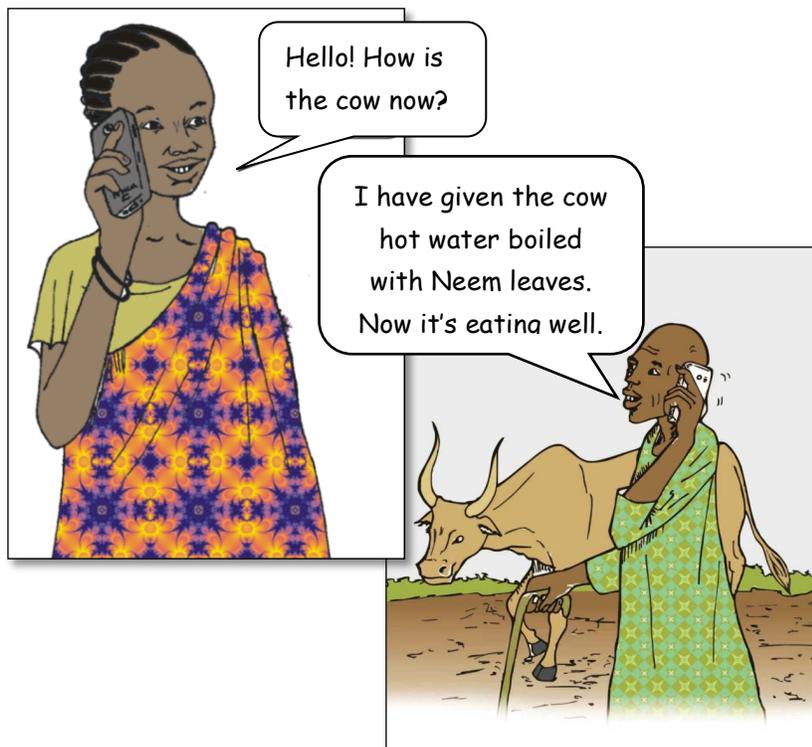
TOPIC 8: MAKING WORK EASIER

Look at this picture story.



Discuss in class what the story is about.

Look at the same story below.



ACTIVITY

Discuss in class what the two stories are about.

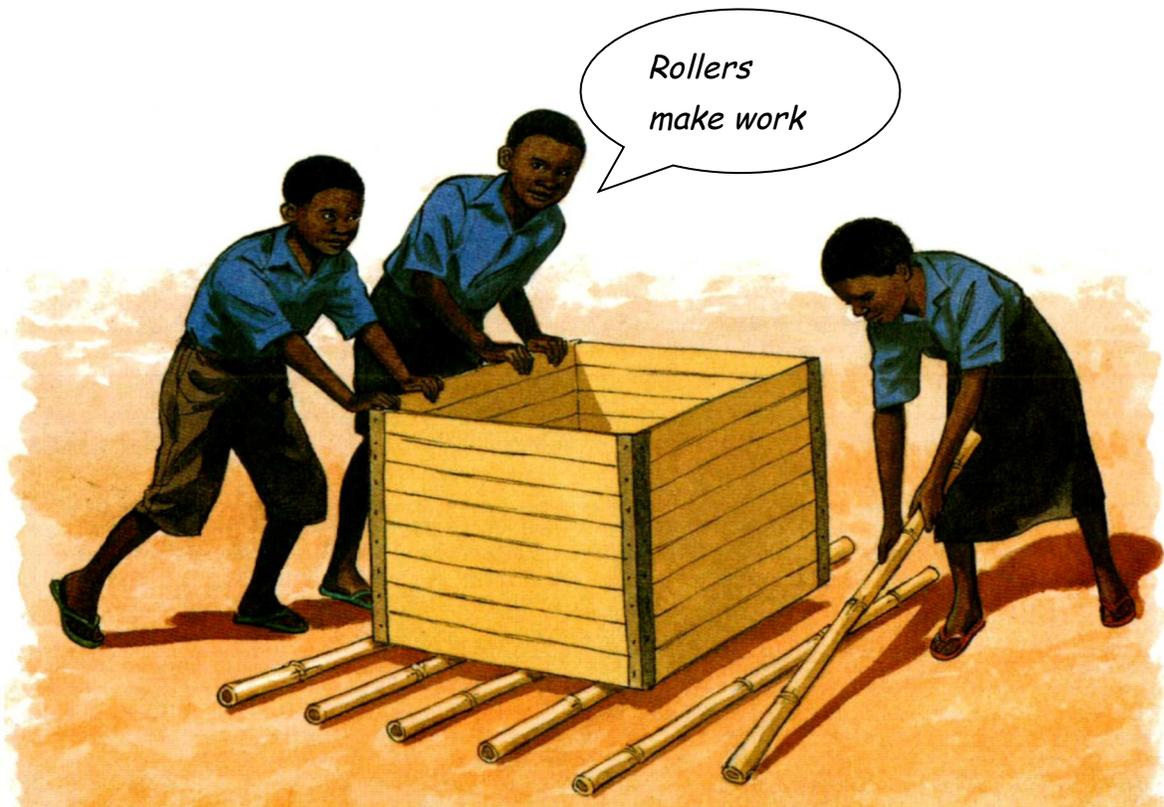
What other things do you use in the cattle camp to make your work easier?

For example; people use ox ploughs to dig.

How would you feel if you are told to push a very heavy box that has all the books in PLEFS?

Deng was told to do it. They tried to push the box but they could not.

This is what they did



Deng and his friends looked for bamboo stems from the forest. They cut each of them into one and a half metres. They arranged the rollers on the ground. They then rolled the heavy box on the rollers. It was very easy.

Group work

List some of the difficult things you do in the cattle camp or when you are moving.

Discuss what you can do to make your work easier.