

Solomon Islands

# Primary Science

LEARNER'S RESOURCE BOOK **Year 1**



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# Primary Science

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Year 1

## Solomon Islands Curriculum Development Division

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# Living things and non-living things

## In this chapter, you will:

- name three living things
- put some living things and non-living things into groups
- name three things that living things need (water, food and air)
- explain that living things can move and grow.

# Living things and non-living things

There are two types of things on Earth. They are **living** things and **non-living** things. They are very different. Living things are special because:

- they **grow** and have young
- they can **move** by themselves
- they need **food** and **water**
- they need **air** to breathe.

Is it living?

## Activity 1



Think about a puppy. Do you think a puppy is living or non-living? Talk to a friend in your class about these things.



- 1** Does a puppy move?  
Yes, a puppy moves.



- 2** Does a puppy eat food and drink water?  
Yes, a puppy eats and drinks.



- 3** Does a puppy grow?  
Yes, a puppy grows into a dog.

## Activity 2

Look at the picture of the yellow chick and the brown chicken.  
Now tell your teacher if a chicken is a living thing.

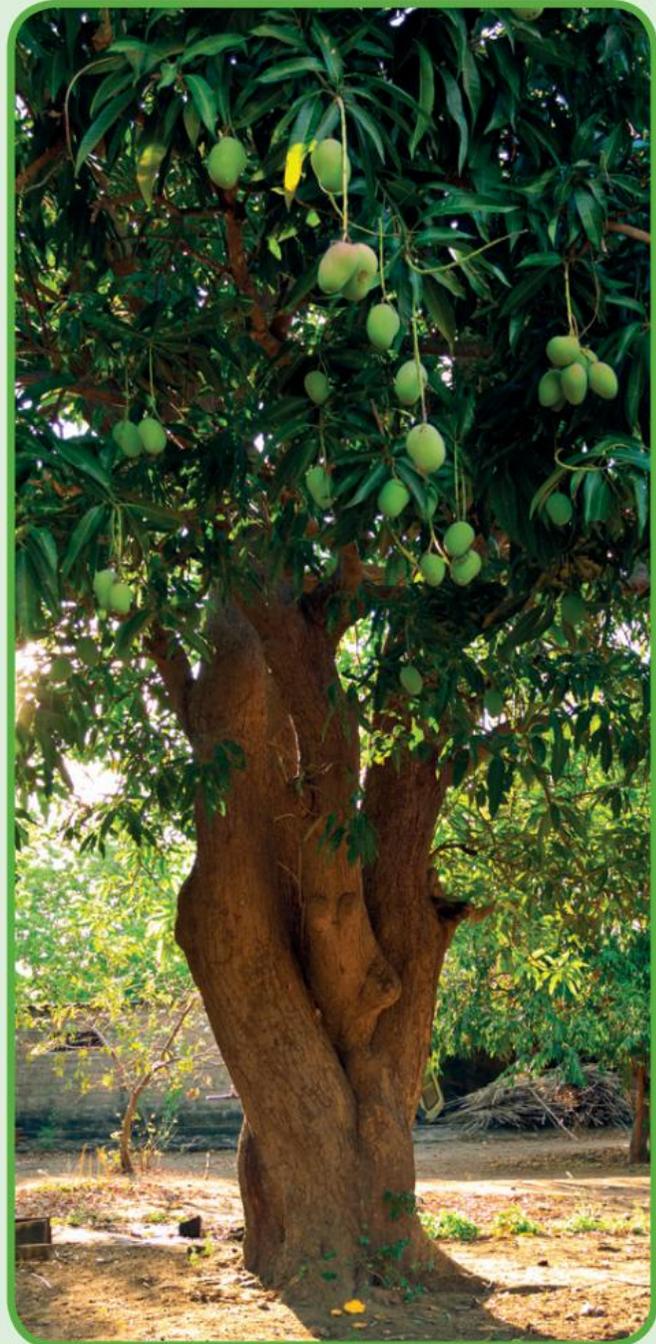
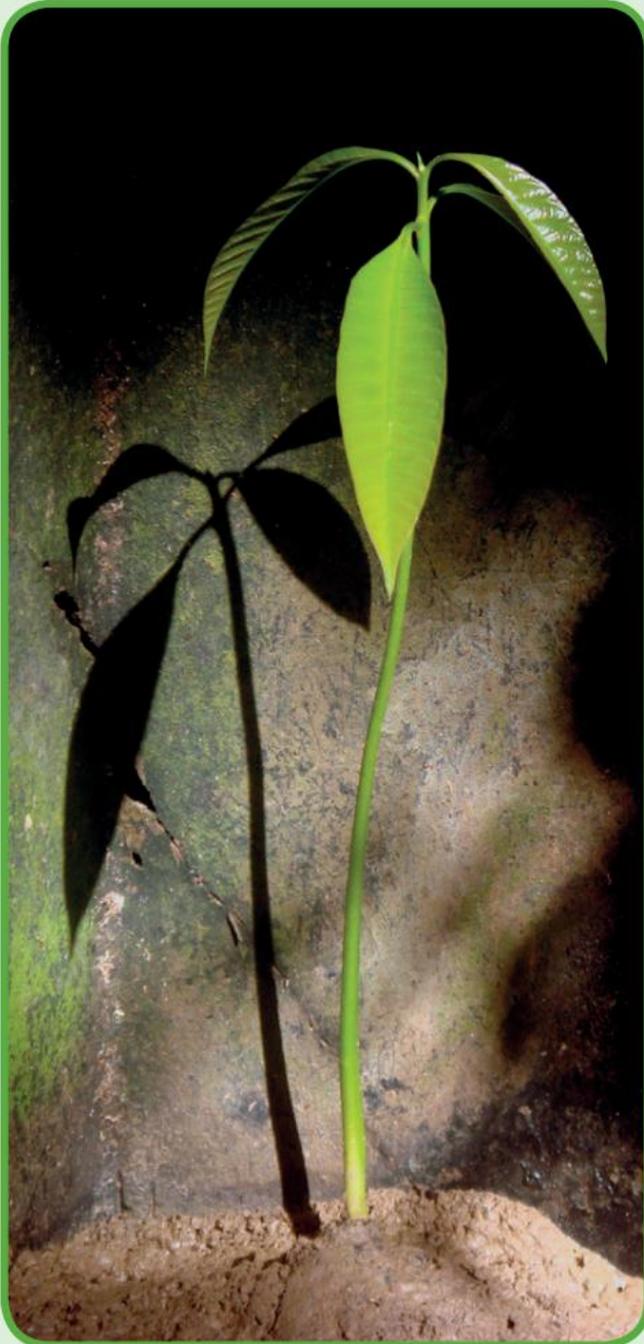


The brown chicken is alive because it has grown from a small yellow chick. Chickens grow, so they are alive.

All **animals** are living things because they eat and drink, move, grow and breathe.

## Activity 3

Look at the picture of the young seedling and the old tree.  
Now tell your teacher if the tree is living.



The tree is alive because it grew from the small seedling. All plants are alive because they grow, and they need water.

## Is a stone alive?



### Activity 4

Your teacher will give you a stone. Look at it. Do you think it is alive? Think about these things.

- 1 Does a stone need food?
- 2 Does a stone grow?
- 3 Can a stone move by itself?
- 4 Does a stone need air to breathe?

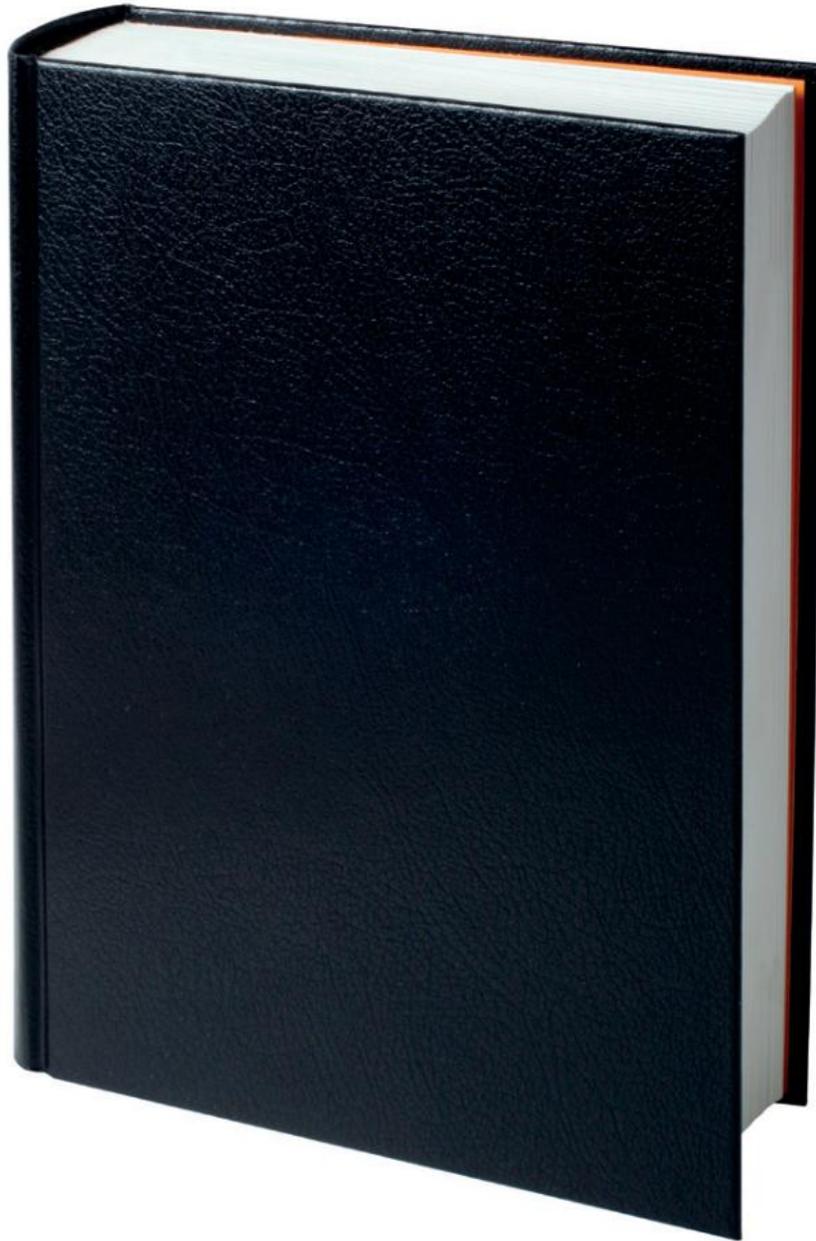
Tell your teacher what you think.



A stone is not living because it does not grow, eat, move or breathe air.

## Activity 5

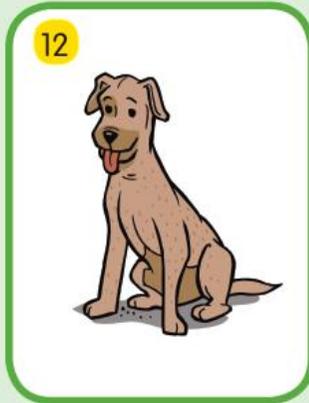
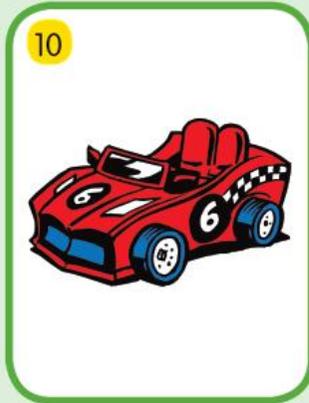
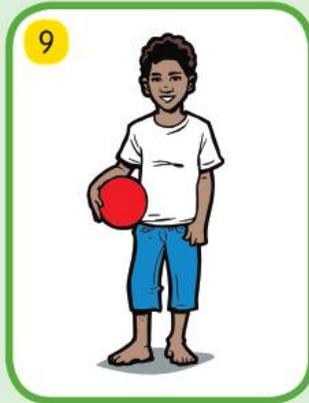
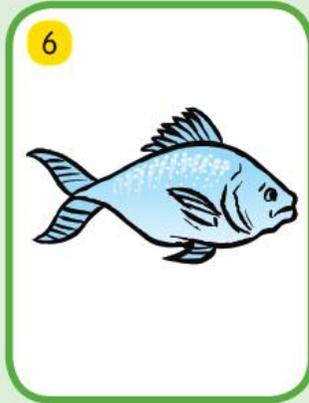
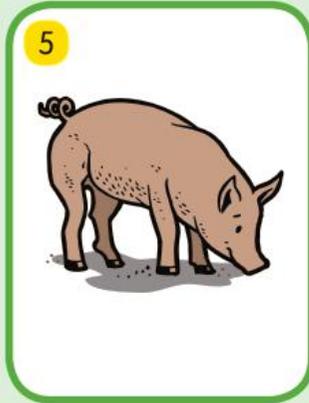
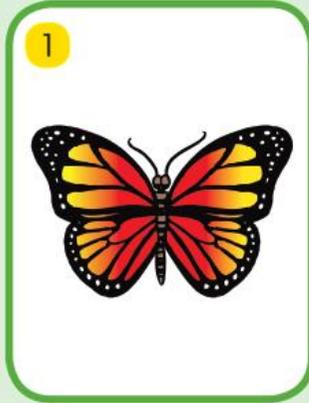
Look at one of your schoolbooks. Tell your teacher if you think that it is living or not living. Tell the teacher why you think this.



Just like the stone, the book is not living because it does not grow, eat, move or breathe air.

## Activity 6

1 Look at the pictures of living and non-living things.



2 Tell your teacher which things are living and which things are non-living. Your teacher will write the name of each thing on the blackboard in the two groups.

3 Draw each thing in your exercise book.

## Activity 7

Go outside with your teacher and show your friends three living things and three non-living things. Then tell the rest of the class why these things are living or non-living.

These pictures show some examples of living and non-living things that you might find outside. Can you name each thing? Are they living or non-living?



## Activity 8

Your teacher will give you some pictures. Decide which pictures show living things and which pictures show non-living things. Then stick the pictures on the chart for Living Things or the chart for Non-living Things.

## Living things can move and grow

## Activity 9

Look at these pictures. Which things can move and grow? Show your partner or your teacher.

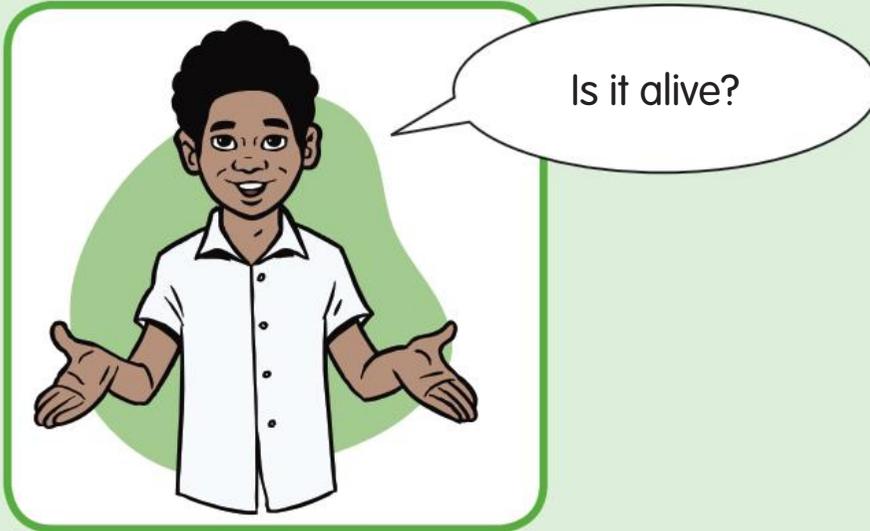


Is it alive?

## Activity 10



Look at the pictures.



Show your teacher which things are alive. Explain to the teacher why you think this.

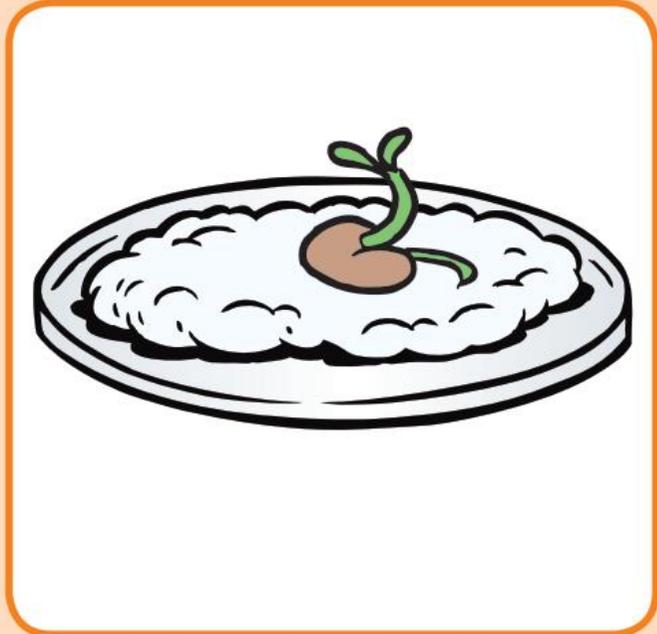
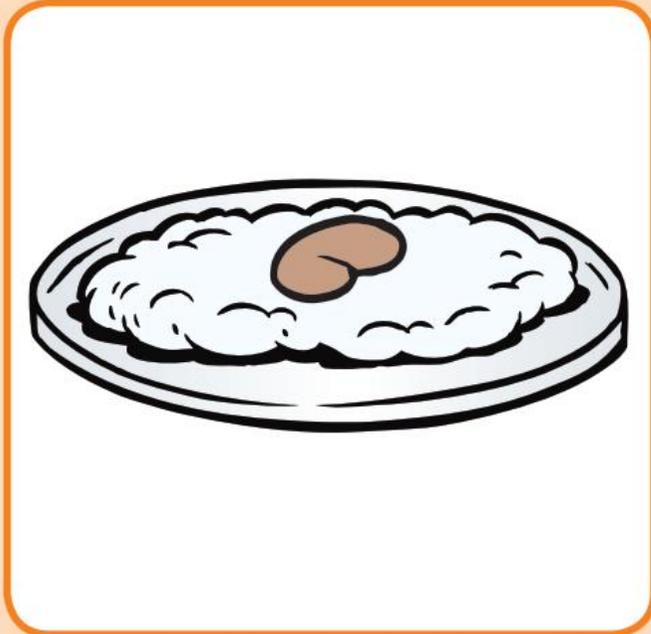


# Plants grow!



## Activity 11

Your teacher will help you plant some seeds and you can watch them grow.



Make sure you water the seeds a little each day, because seeds and plants need water to grow.

# Babies grow!



## Activity 12

Here are babies, Verity and Grace.



Look at the pictures below. Show your teacher one thing that Verity and Grace need each day to help them grow.

1



2



3



4



Can you think of any more things that babies need to grow?

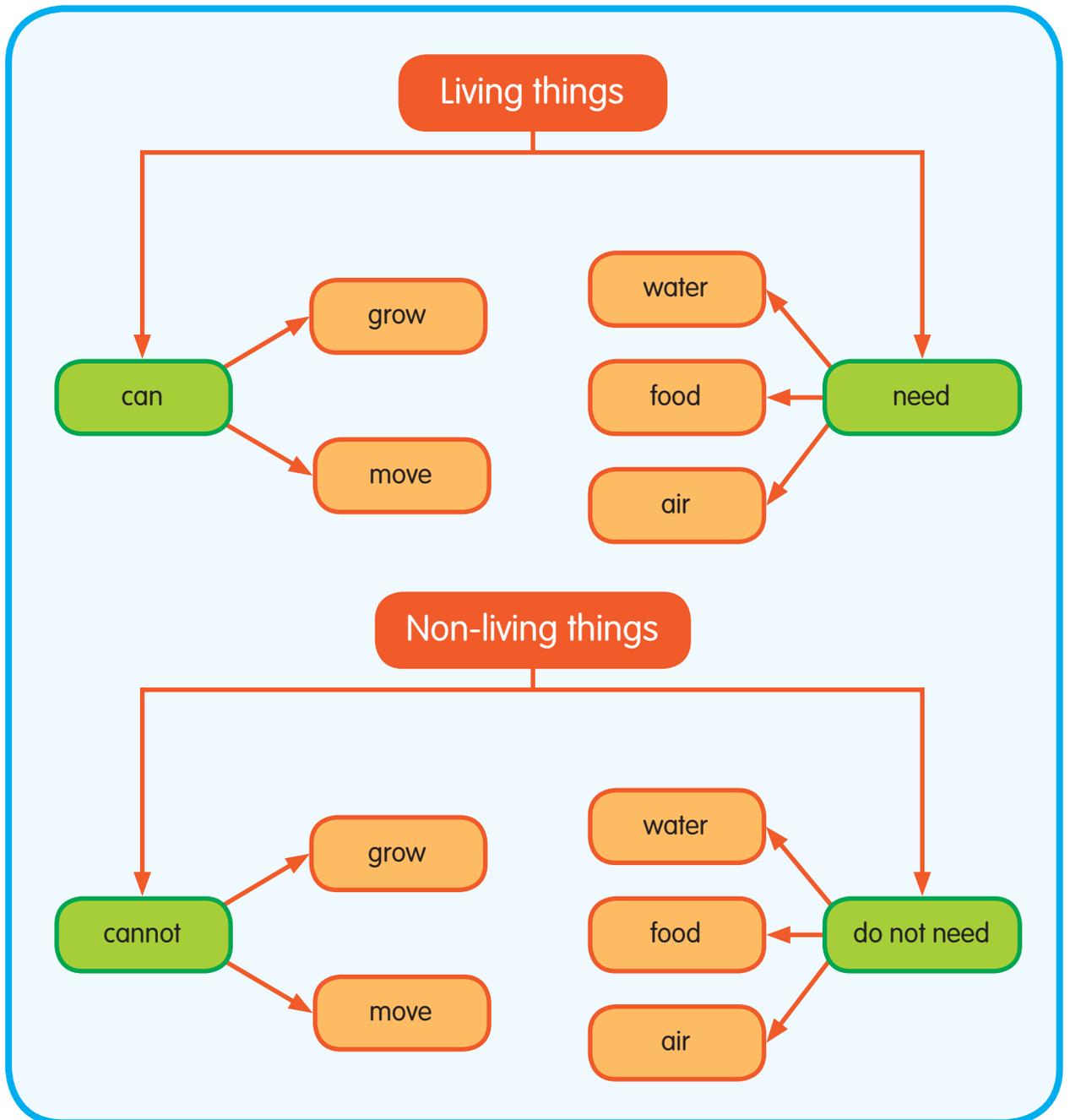
## 1 Living things:

- grow
- move.

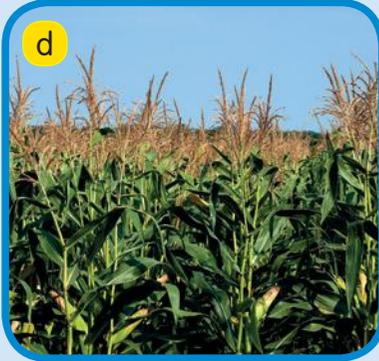
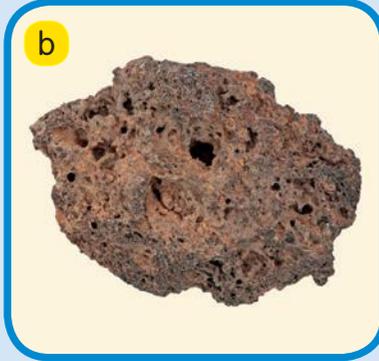
## 2 Living things need:

- water
- food
- air.

## Concept map



1 Look at the pictures. Show your teacher the things that are living.



2 Tell your teacher why the boy and girl in the picture are living.



## Energy all around us

### In this chapter, you will:

- state where we get light at home
- name the colours of the rainbow
- name two ways we get heat
- make a musical instrument
- draw some things at home that need electricity
- push a toy car.

# Types of energy

Energy is all around us. There are many different types of energy. In this chapter we will find out about some types of energy. We will find out about light, heat, sound and electricity.

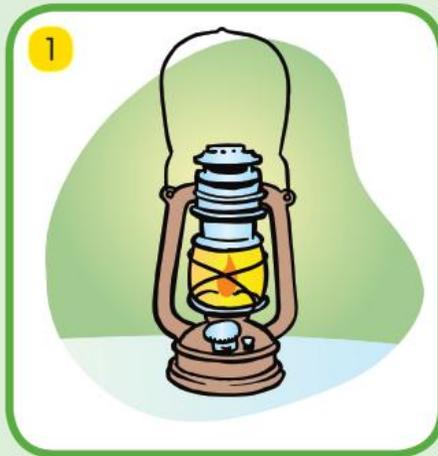
## Light

We need light to see things. Most light comes from the Sun, but at **night** or inside we use other light.

### Light at home

#### Activity 1

Tell your teacher how you get light at home. How do we get light at school?



### Light from a candle

#### Activity 2

Your teacher will light a candle. Watch how it burns and gives out light. Draw a picture of the candle in your exercise book.



## Colours and rainbows

Light can come in different colours. Look at the picture of the rainbow. How many colours do you see?



Next time there is a rainbow your teacher will take you out to see it.

### Activity 3

Draw a rainbow in your exercise book and tell a friend a story about your rainbow.

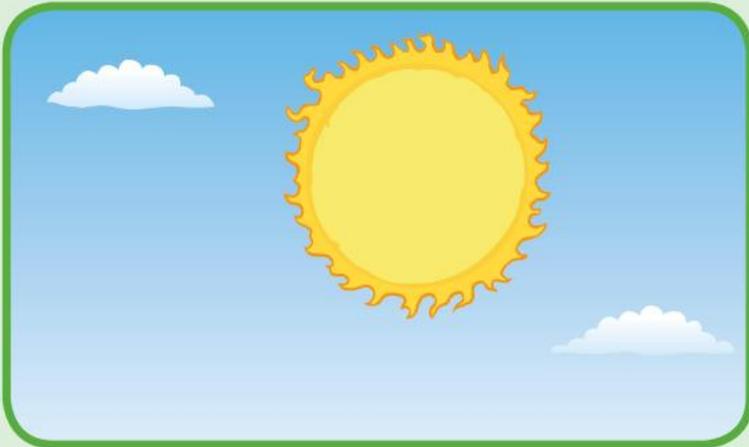


# Heat

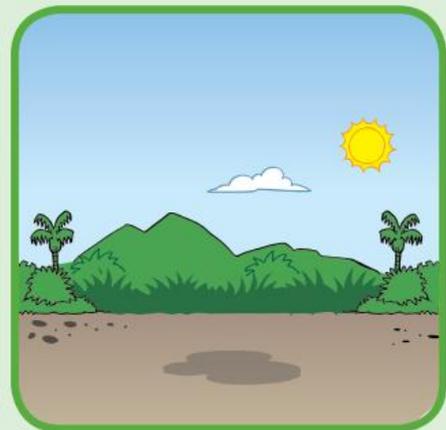
Heat makes us warm. Most of our heat comes from the Sun. In the Solomon Islands we do not need to heat our homes, but we do need heat to cook our food.

## Heat from the Sun

### Activity 4



Your teacher will make a water puddle in the playground. What will happen to the puddle after some time?



The puddle dries because of the heat from the Sun.

## Heat from fire



Like the Sun, fire gives us heat. We can use fire to cook our food because it gives heat.



# Sound

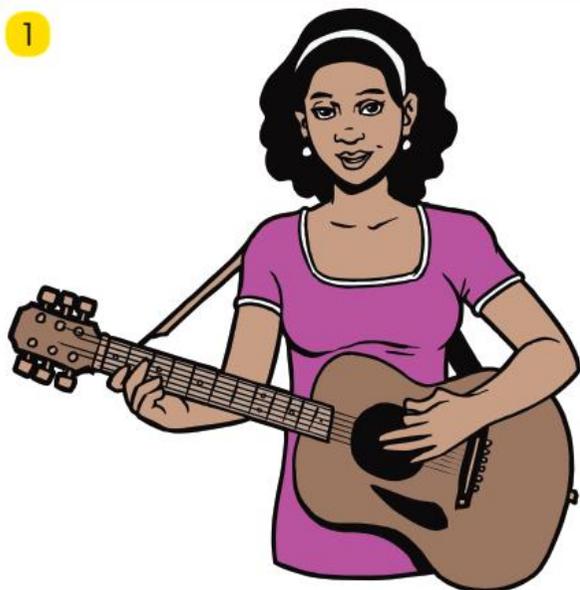
We hear different sounds all the time: cars, birds singing, music and lots of other sounds. Tell the teacher how you think we hear sounds.



## Activity 5

Look at the pictures. What are the people using to make music?

1



2



3



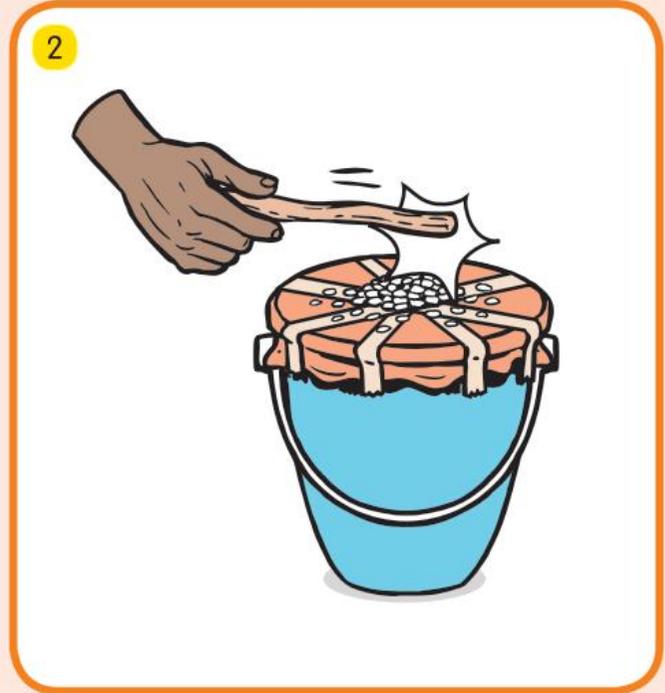
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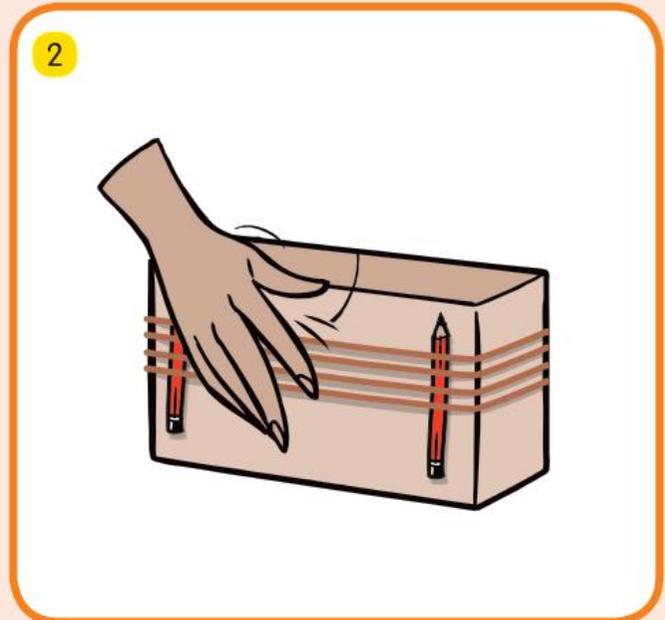
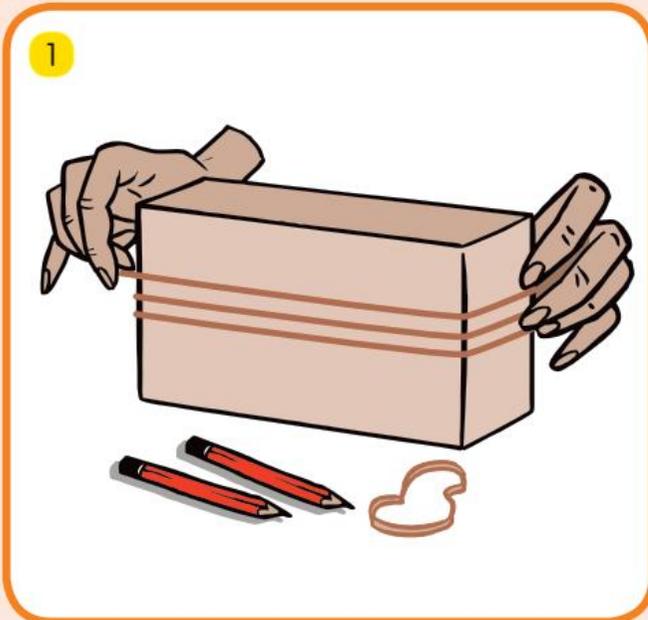
# Activity 6

Your teacher will help you to make an instrument to make music.

## A drum



## A guitar



# Electricity

Many things need electricity. Lights, televisions and radios all need electricity to work.

## Things that use electricity



### Activity 7

Look at the things below. They all use electricity. Can you tell your teacher what each thing is used for?





## Activity 8

When you go home, draw a picture in your exercise book of something that uses electricity.

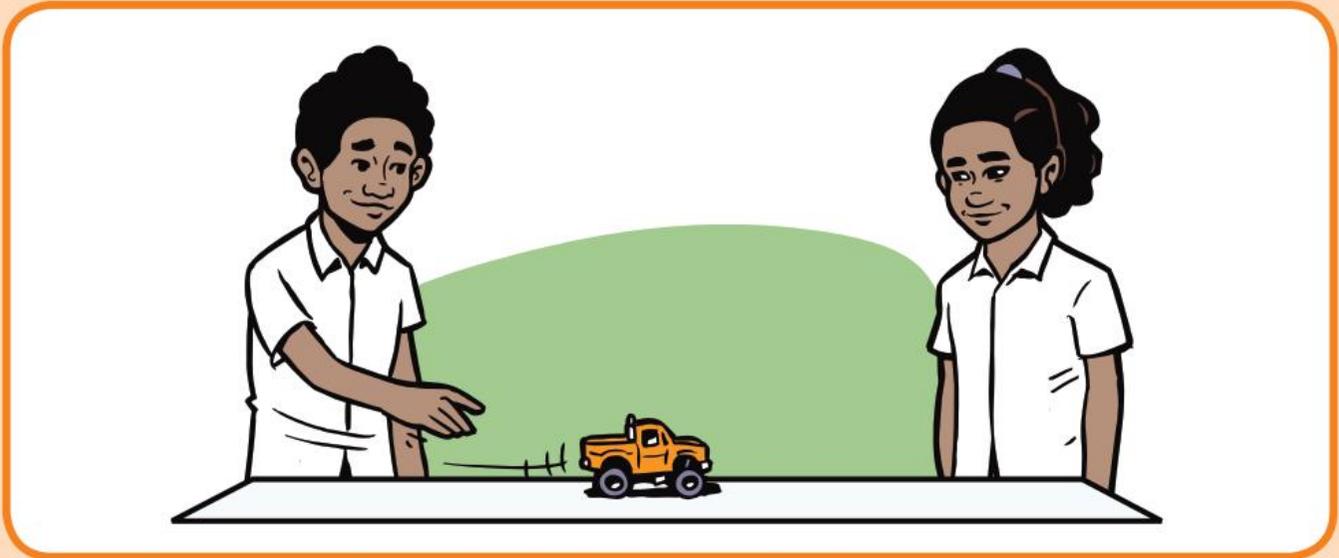


# Moving a toy car

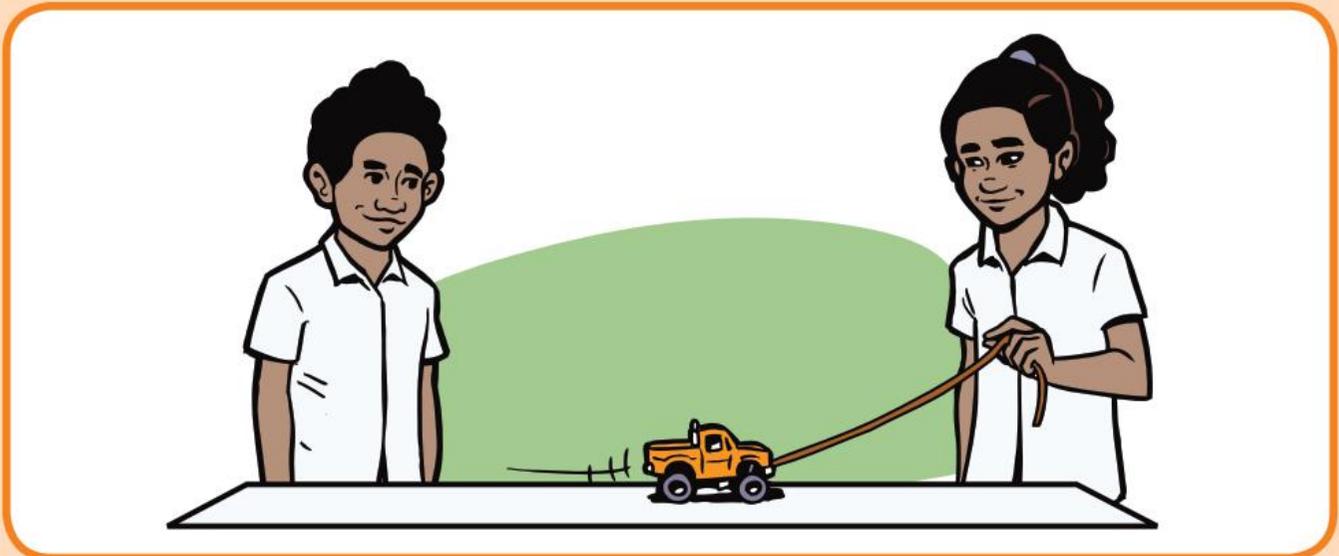


## Activity 9

Your teacher will give you a toy car. Set it on a flat table. Does it move? How can you make it move?



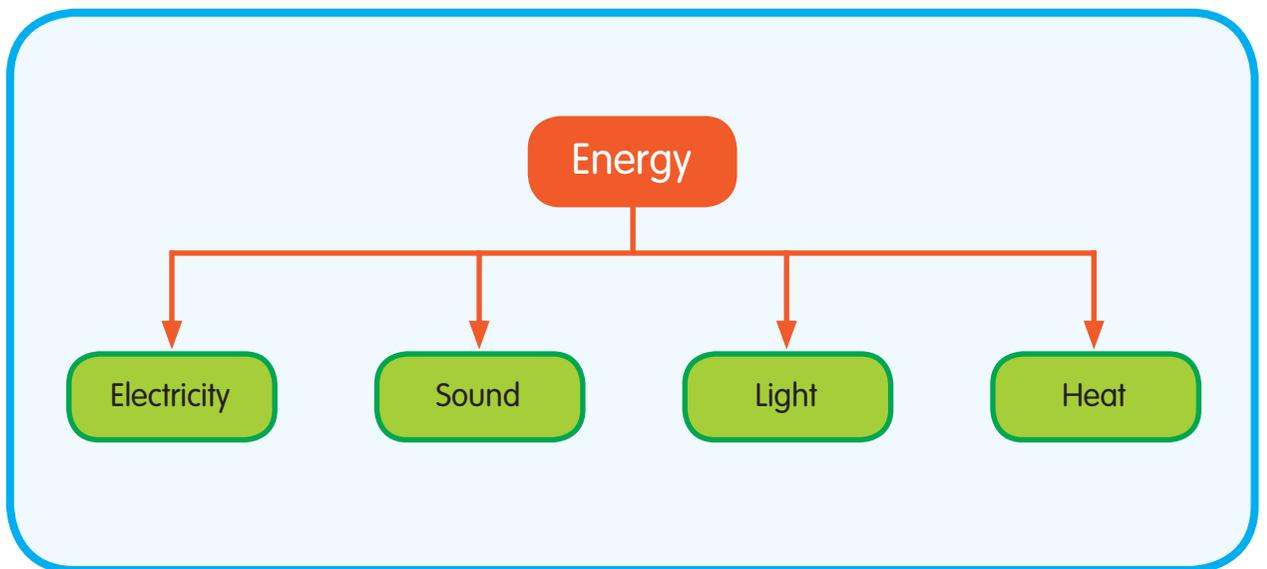
You can move the car by **pushing** it.  
How can you make it move faster? Tell your teacher.



We can also make the car move by **pulling** it.

- 1 Energy is all around us.
- 2 Light, heat, sound and electricity are types of energy.
- 3 The Sun gives us light and heat.
- 4 Fire gives us heat and light.
- 5 A rainbow has seven colours.
- 6 We can move things with a push or a pull.

## Concept map



# Revision

Tell the teacher what type of energy is being shown in each picture.

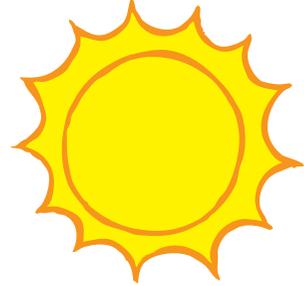
1



2



3



4



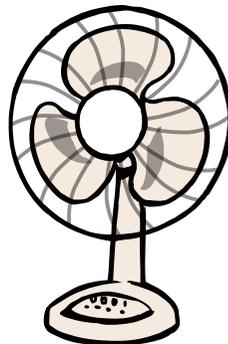
5



6



7



# Sorting materials

## In this chapter, you will:

- put things into groups
- name the shape and colour of some objects
- squash and stretch two types of materials.

# Different materials

There are **materials** all around us. Some are made by nature, like wood from trees. Some are made by humans, like plastic.





## Activity 1

Look at the things that your teacher has given you and put them into two groups. One group will be for plastic things and another group will be for wooden.



## Activity 2

These things are made of metal. Metal is very strong.



Walk around the classroom and find all the things made of metal.

## Activity 3

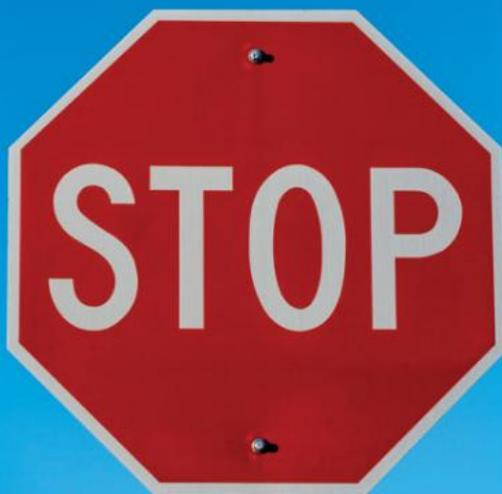
Go with your teacher into the schoolyard. See if you can find things that are made of wood, plastic or metal.

You might see things like these.

1



2



3

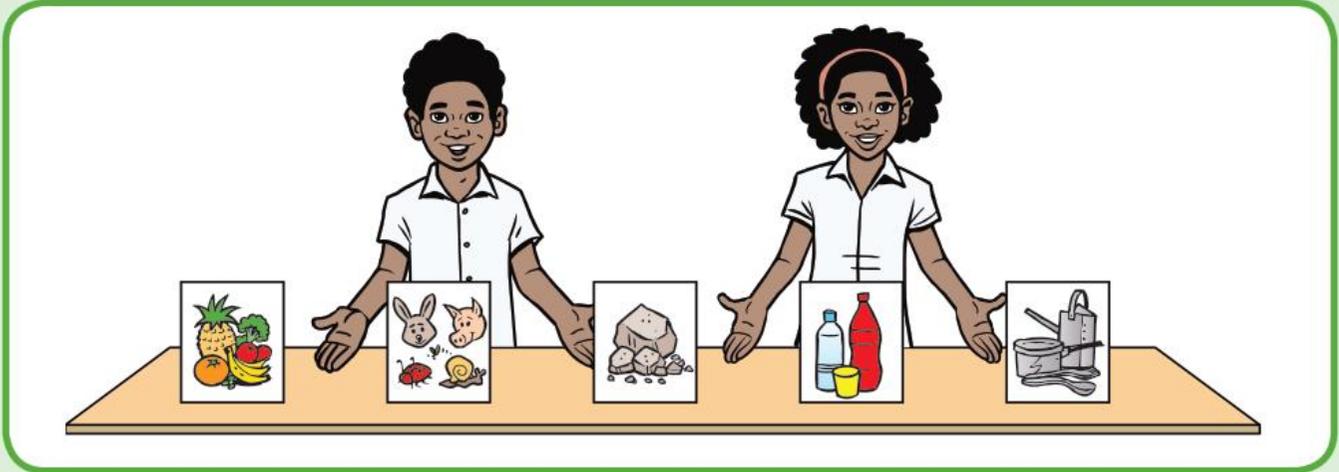


# Natural and man-made things

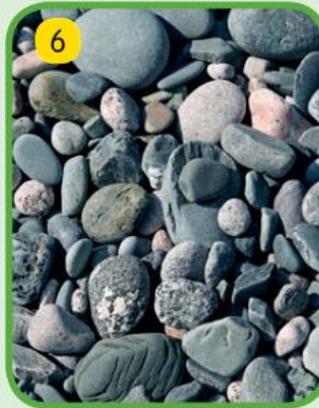
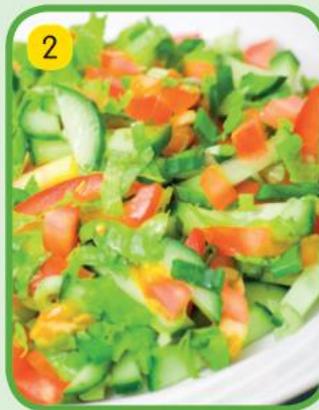


## Activity 4

Which ones are made by humans (man-made)? Which ones are natural materials?



Look at the pictures below and tell your teacher if the things are natural or man-made.



# Describing things



## Activity 5

We can describe **objects** or things using different words.

We use words like *hard* or *soft*; *dull* or *shiny*; *rough* or *smooth*.

Your teacher will give you some things to look at. Use the words above to describe each object to your teacher.

1



2



3



4



5



6





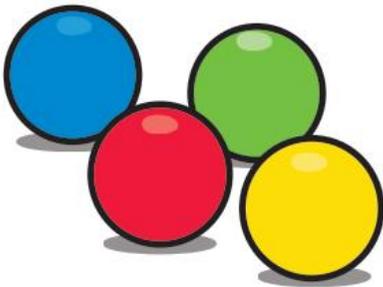
## Activity 6

Your teacher will read and explain these words. They describe the colour and shape of objects.

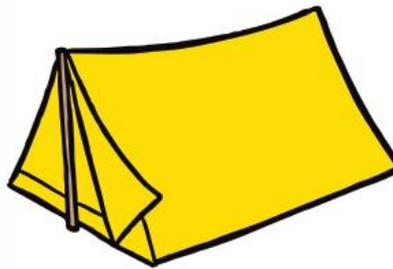
round	square/rectangle	triangle	blue	red
green	yellow	brown	white	black

Look at the pictures and tell your teacher what colour and shape each object is. Try to name each object.

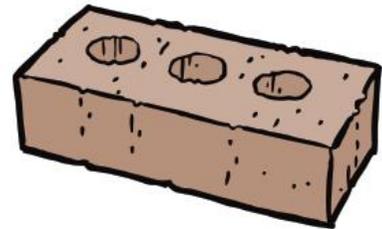
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2



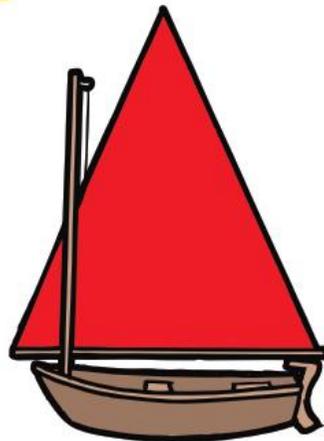
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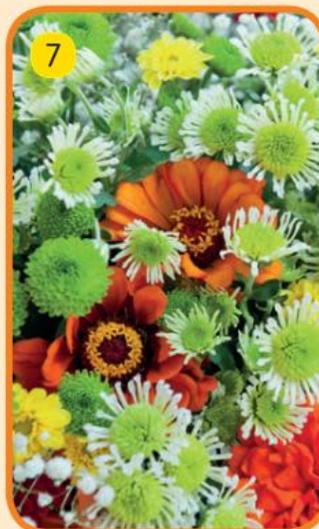
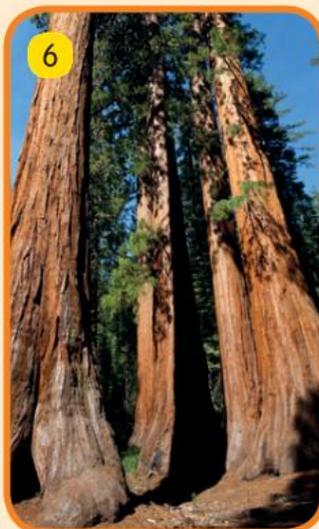
## Activity 7

Your teacher will point to different things in the classroom. Tell the teacher what colour and shape each thing is.



## Activity 8

Your teacher will take you into the schoolyard. Look around. How many different colours can you see? The pictures below will help.

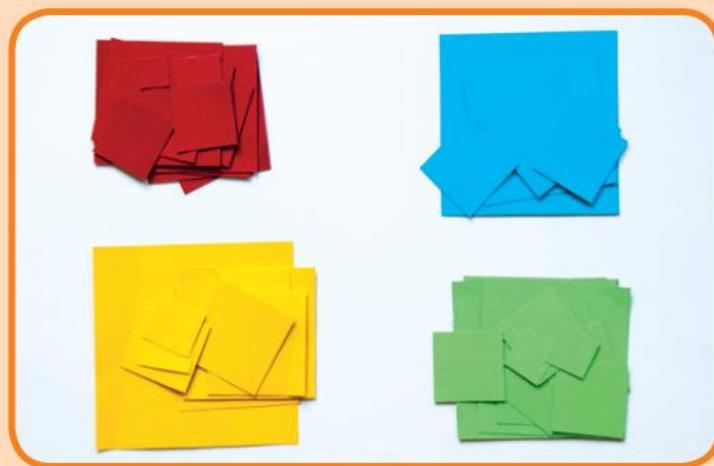


# Grouping colours and shapes



## Activity 9

Your teacher will give you lots of square cards of different colours. Can you put the cards into groups of the same colour, like the picture below?



## Activity 10



Your teacher will give you more cards. This time they have the same colour but different shapes. Can you put these cards into groups of the same shape, like the picture below?



## Activity 11

Your teacher will give you some more cards. This time they have different colours and different shapes. Can you put these cards into groups of the same shape and colour, like the picture?



## Changing shape

We can change the shape of objects if they are soft.

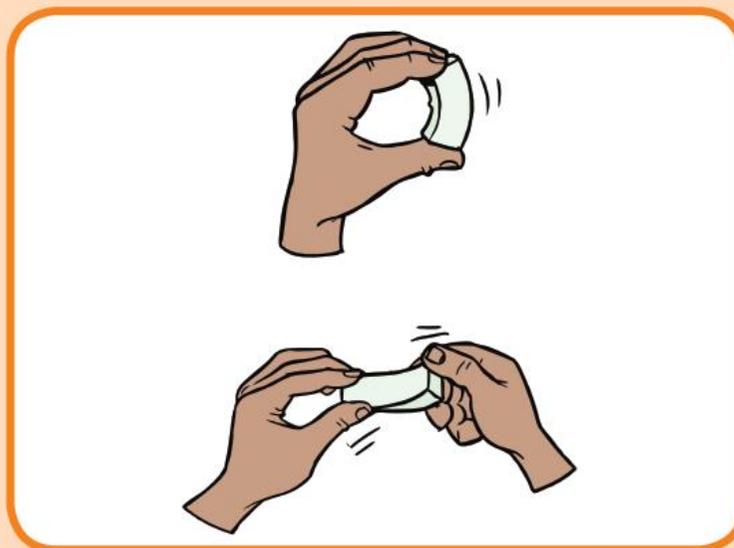
## Activity 12

Your teacher will give you a small ball. What shape is the ball? Can you change the shape of the ball? Show your teacher how you do this.



## Activity 13

Your teacher will give you an eraser. Can you change the shape of the eraser? Show your teacher how you do this.



## Activity 14

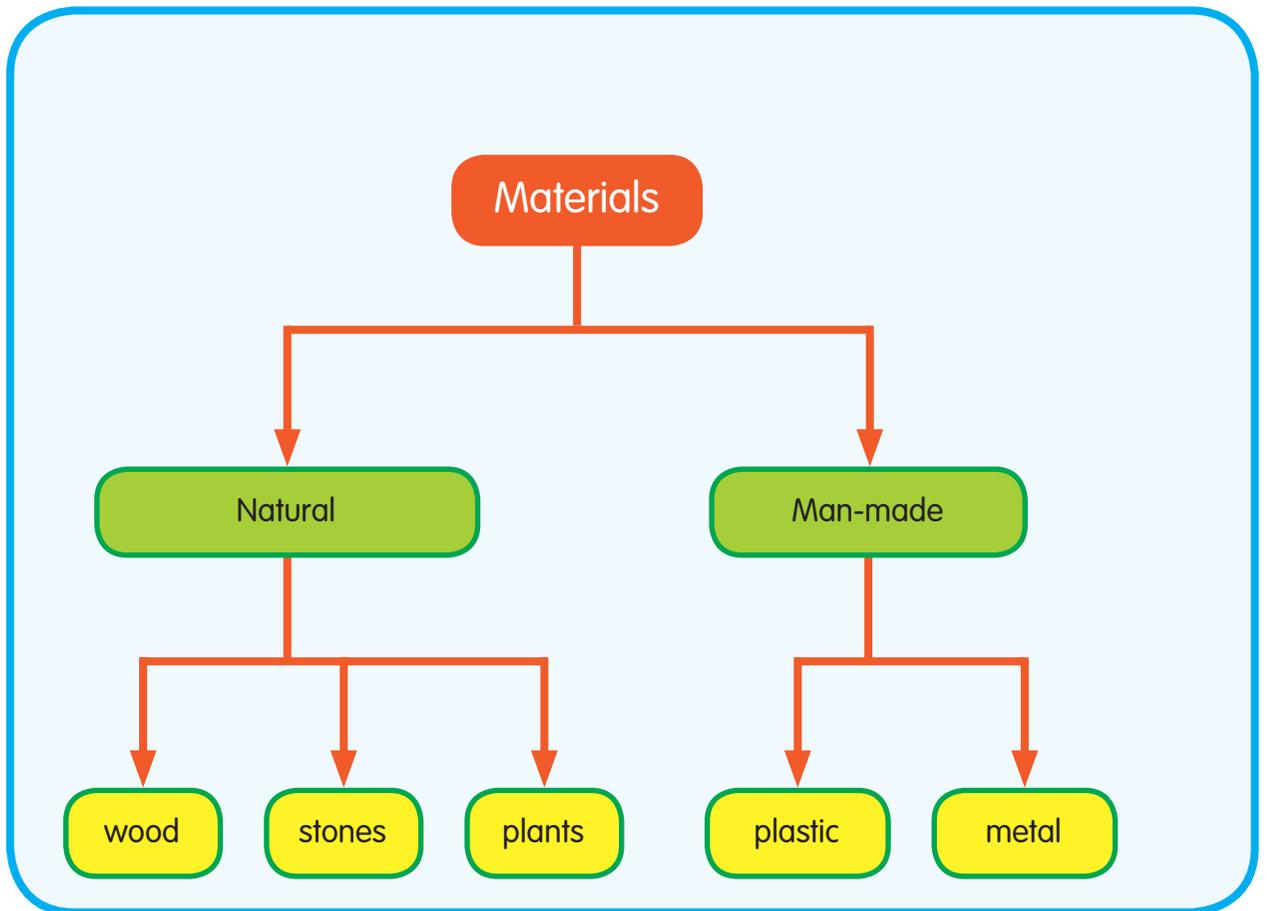
Your teacher will give you a rubber band. Can you change the shape of the rubber band? Show your teacher how you do this.



We can change the shape of some objects by squeezing, twisting or pulling them.

- 1 Materials can be natural, like wood, or man-made, like plastic.
- 2 We can group things by their shapes and colours.
- 3 We can change the shape of some materials by squeezing, twisting, pulling or stretching them.

## Concept map



# Revision

Look at the pictures and tell your teacher what material each object is made from.



# Food from the garden

## In this chapter, you will:

- name three root crops eaten at home
- explain why food from the garden is healthy
- name garden crops eaten at home.

# Food from the garden

Some of our food comes from shops and some comes from our gardens. Food from our gardens is fresh and good for us.



## My favourite vegetables

### Activity 1



Look at the vegetables your teacher has brought to school.

- 1 Can you name them?
- 2 Do they grow in the soil or above it?
- 3 Which of these is your favourite?
- 4 Tell your teacher and the rest of the class why it is your favourite.



All of these vegetables grow in the soil and are called root crops.



### Activity 2

Here are some other vegetables. How are these different from those in Activity 1? Tell your teacher or a friend in your class how they are different. Which of these is your favourite? Tell you teacher and the class why it is your favourite.

1



2



3



4



Do these vegetables grow in the soil or above it?



## Activity 3

Not all vegetables are root crops or green vegetables.  
Your teacher has some different vegetables to show you.

1



2



3



4



Do you know these vegetables?

## What's growing?

Food from the garden is very good for our bodies and helps us to stay healthy and grow.

Vegetables from the garden are very good for you. They are fresh and help you grow and help to keep you healthy.



### Activity 4

Go with your teacher to the school garden. Can you name the vegetables you see growing there? Tell your teacher or a friend which vegetables you can see and which ones you like to eat most.



Food from the garden is very good for our bodies. It helps us to stay healthy and grow.

# Where does food come from?



## Activity 5

Look at the pictures and point to the food that comes from the garden. Where does the other food come from?



# At the market



## Activity 6

### Market visit

Your teacher will take you to a local market. When you get there, see how many types of vegetables you can find. Draw a picture of the market when you get back to class.



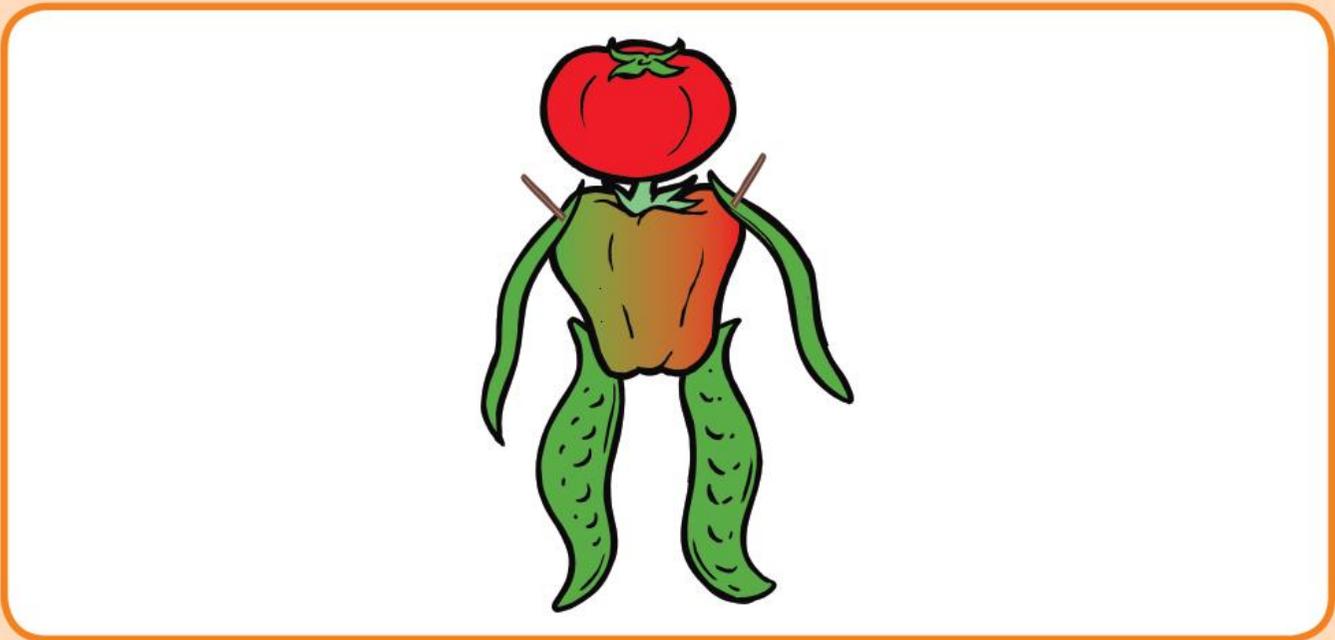
# Vegetable person

## Activity 7



Let's make a vegetable or fruit person.

Use the vegetables and fruit to make a little person like the one below.





## Activity 8

### Cooking game

Your teacher will give you a vegetable. With a friend you can pretend to cook it and then tell the rest of the class how you cooked it.

I'll cut the potato and you cook it in the pan.



## Activity 9

### Shopping game

Your teacher will give you some vegetables. Use these to make a market stall. Then your friends can come and buy some using the money the teacher has given them.

Welcome to our market stall. What would you like to buy today?

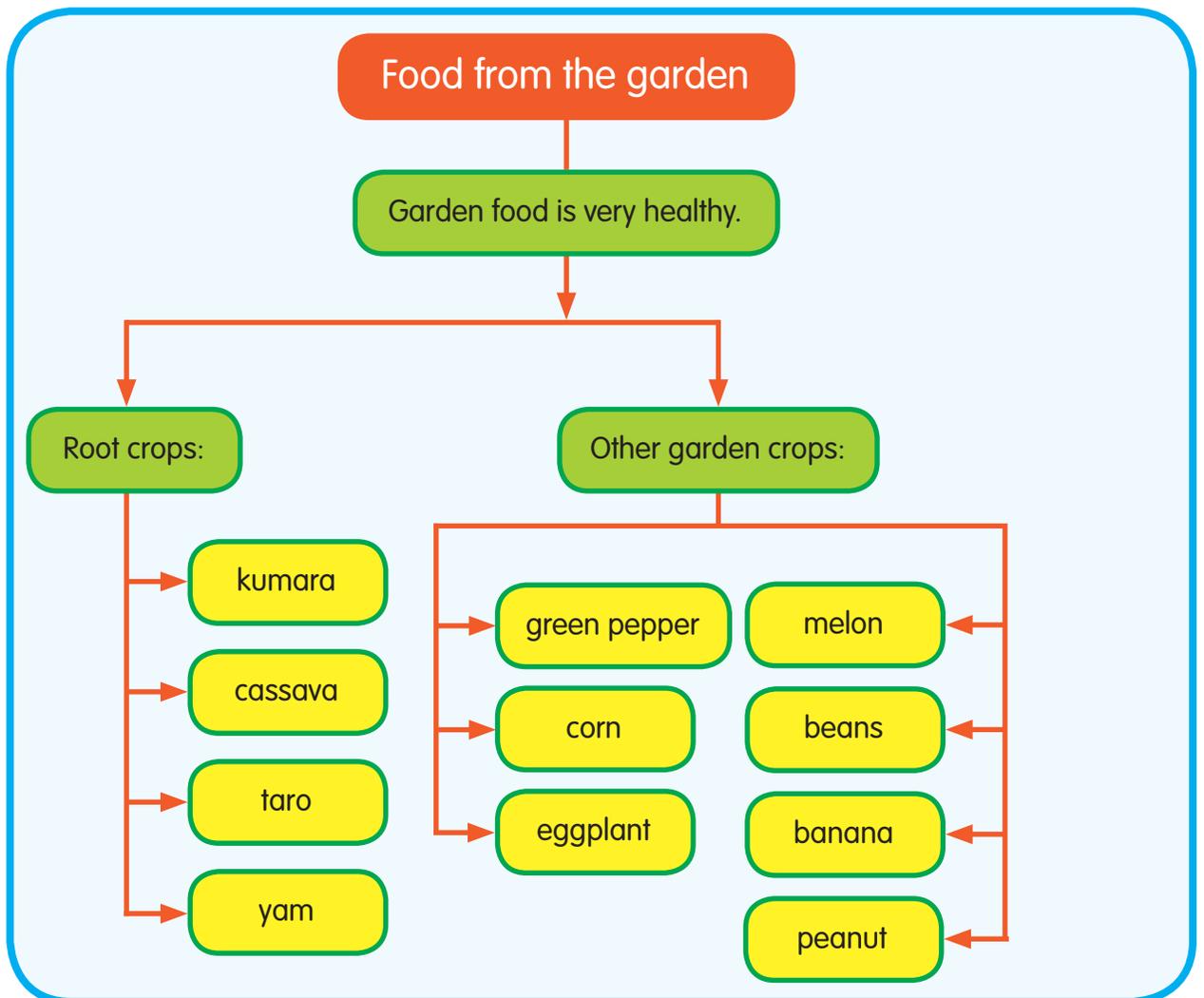


1 These vegetables are root crops.



2 Food from the garden is fresh and keeps us healthy.

## Concept map



1 Show your teacher the foods from the garden by pointing to them.



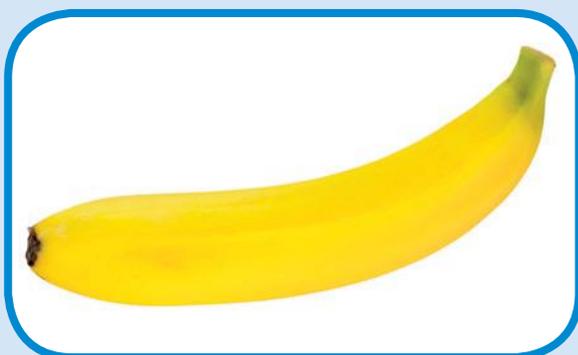
biscuits



kumara



rice



banana



bread



green peppers



tinned fish



pineapple

2 Draw your favourite vegetable in your exercise book.

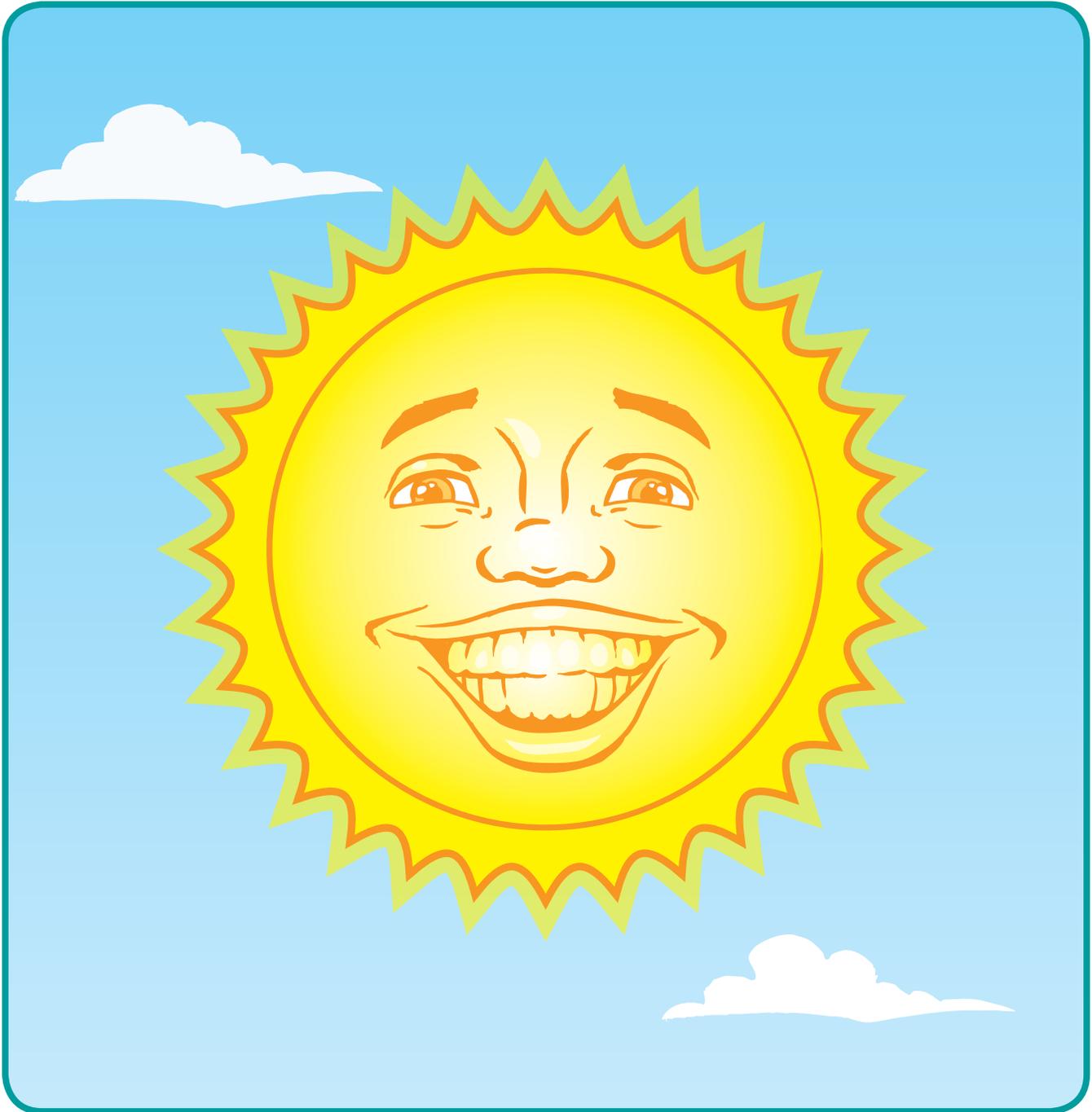
## Sun and Moon

### In this chapter, you will:

- state that the Sun gives us light and heat during the day
- explain that the Moon is lit by the Sun
- explain why we should never look at the Sun
- name two animals that come out at night
- name two things we do during the day
- name two things we do during the night.

# The Sun

The Sun gives us light and heat during the day.



## Danger

The Sun gives us heat and light but we must never look directly at it. If we look at the Sun it can damage our eyes, and it can even make us blind.

## Activity 1

Your teacher will take you into the sunshine. Tell your teacher what you feel and see.



You will feel the heat from the Sun. The light from the Sun helps us to see things.

## Activity 2

Your teacher will read this poem about the Sun to you.



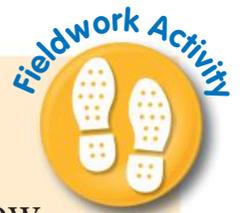
### The Sun

The Sun, the Sun so bright  
 The Sun, the Sun so hot  
 The Sun gives us light  
 We play on the beach on a sunny day  
 We swim in the sea on a sunny day  
 We go for a walk on a sunny day  
 We go to school on a sunny day  
 The Sun is just wonderful to us.

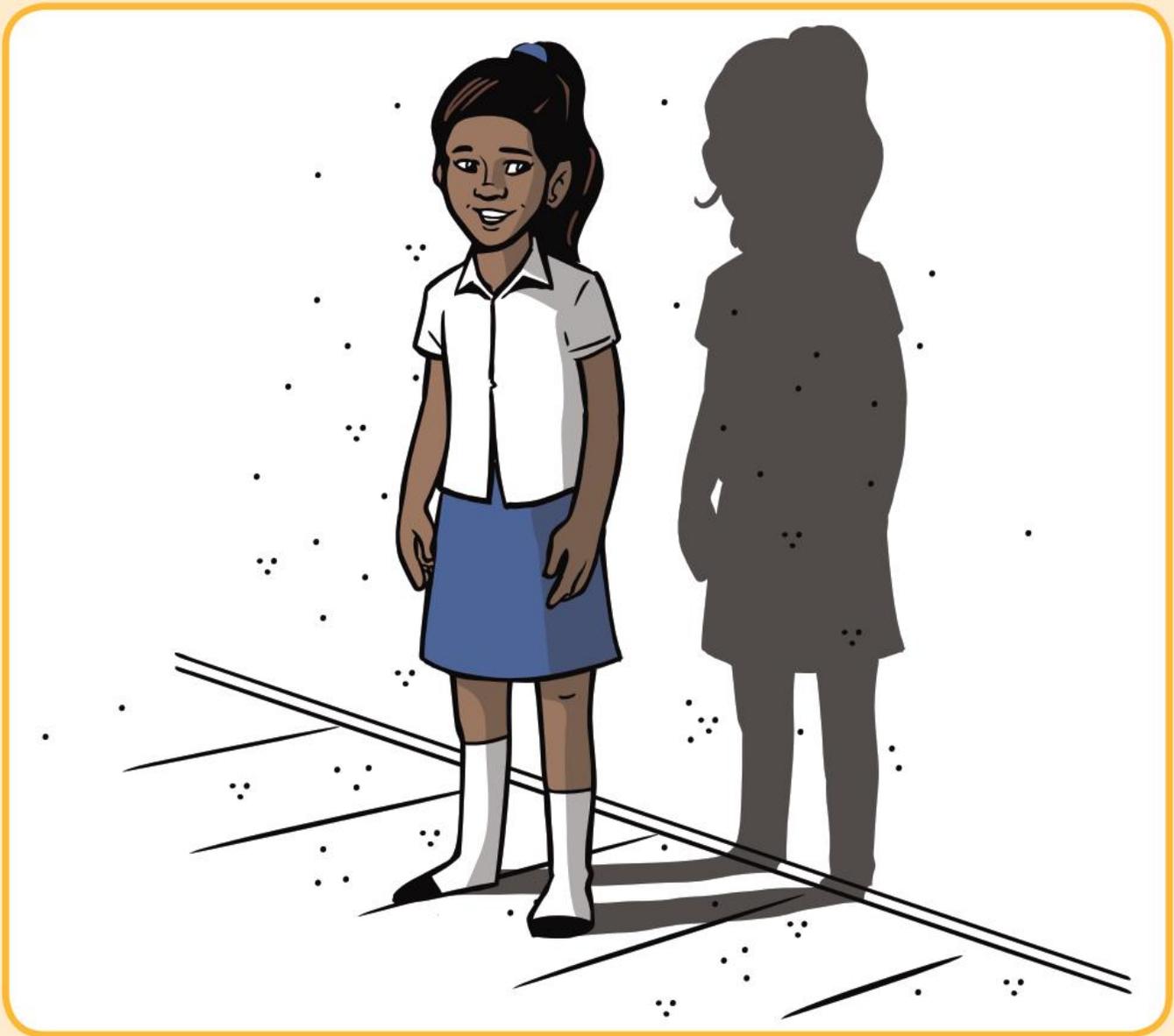


# Shadows

## Activity 3



This drawing shows a child and her shadow. Look for your shadow when you go outside.



# The dark

## Activity 4



Your teacher will make the classroom **dark**. Is it easy to see in the dark?



No, we need light to see and the Sun gives us light.

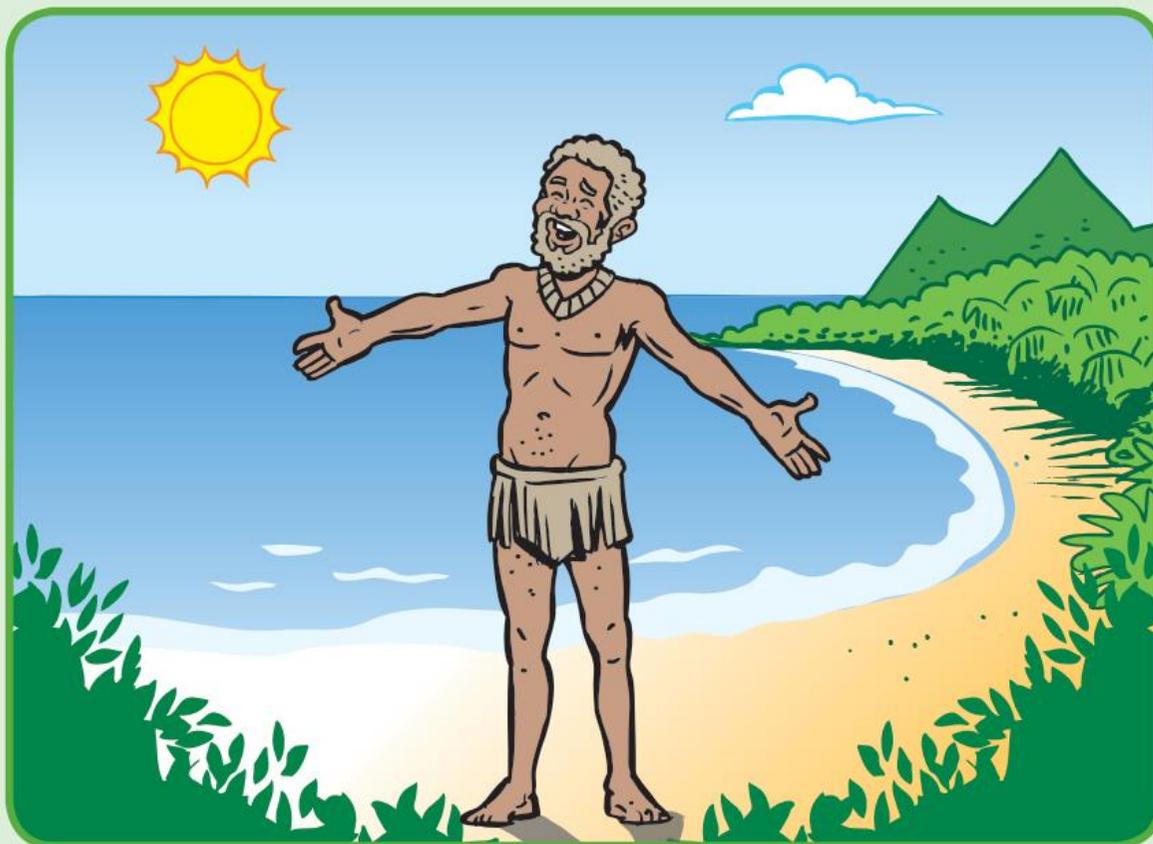
## Activity 5

Your teacher will read you this story.

### The Sun and the old man

Long ago the Sun had no light to shine. The Earth was dark. There was a wise old man who lived on an island by himself. He lived there on magical wishes. If he wished for rain, there was rain to give him water. If he wished for light, there was light.

When the Sun noticed this, he wanted light, so he came down and asked the old man to give him just one wish. The old man agreed but on one condition: the heat must be just hot enough for plants and animals on Earth. The old man gave him the wish and the Sun left. From that day on, the Sun had its own light to shine. Now the heat from the Sun is just hot enough for animals and plants to live.



## Heat

The Sun gives us heat as well as light. The heat from the Sun can dry things like the clothes in the picture.

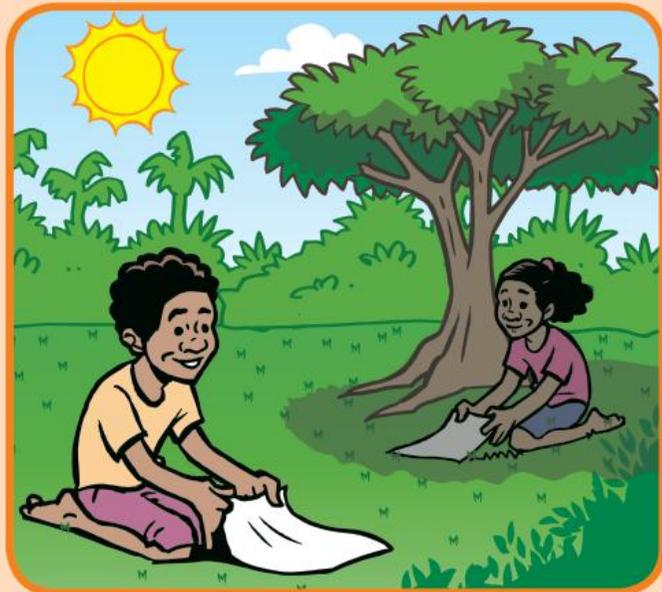


## Drying a cloth

### Activity 6

Your teacher will give you two bits of cloth.

- 1 Wet these in some water, and then put one in the Sun and one in the shade.
- 2 Which one will dry first?
- 3 Why is this? Tell your teacher what you think.



## Day and night

The Sun shines in the day and we can see. The Sun does not shine at night. It gets dark and we need lights to help us see.

Cars need lights at night to light the way and so they are visible to other cars, cyclists and people.



Cyclists also need lights at night to light their way and so they are visible to other people.



## Things we do during the daytime and at night

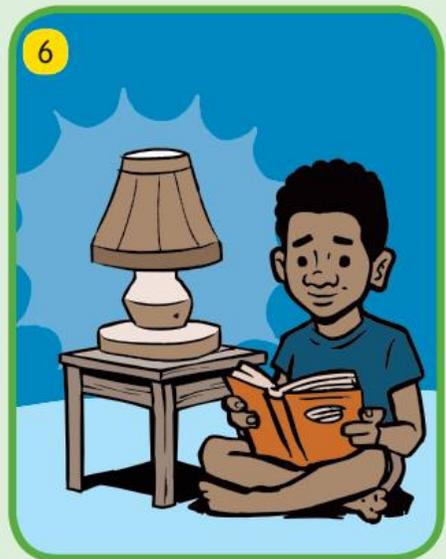
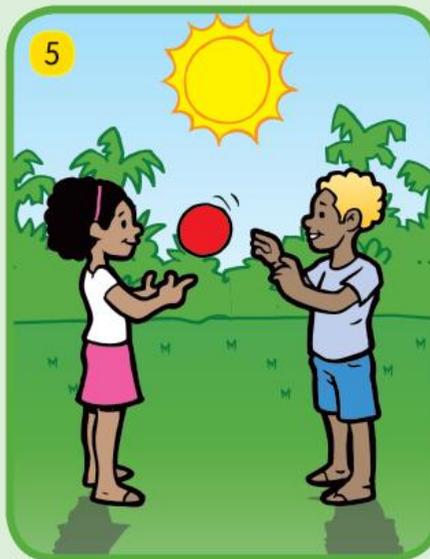
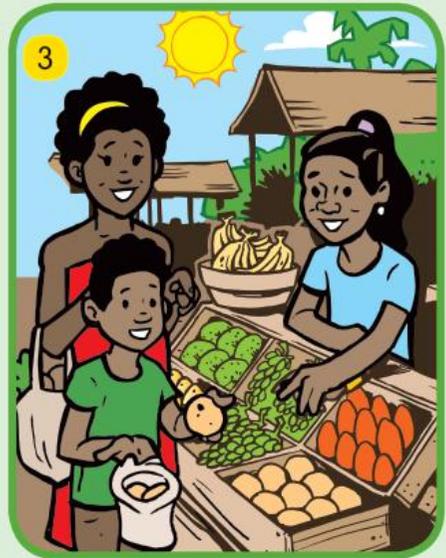
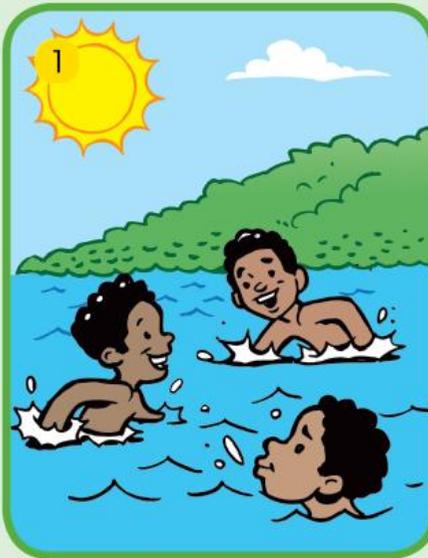
We do different things during the day and at night.

For example, we go to school during the day and we sleep at night.



### Activity 7

Look at the pictures and tell your teacher which things you do in the day and which things you do at night.



# Animals in the day and at night

Most animals come out during the day when it is light, but some only come out at night.



## Activity 8

Your teacher will take you into the schoolyard. What animals can you see? What are they doing? Tell your teacher.



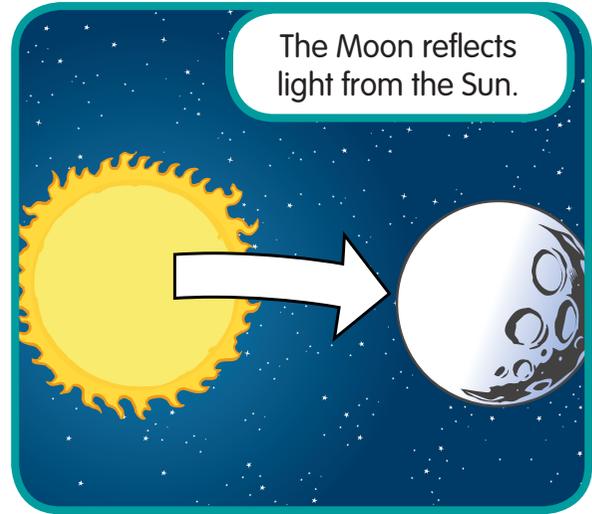
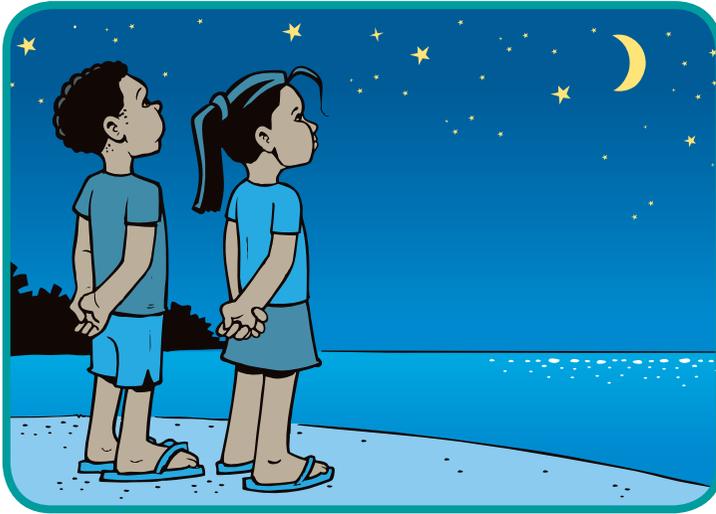
## Activity 9

Look at the pictures and tell your teacher which animals come out at night and which ones come out during the day.



# The Moon

We see the Sun during the day and the Moon at night. The Moon does not give us heat but it does give us light. It does not have its own light like the Sun. The Sun lights up the Moon so we can see it when we look up at the night sky.



## Activity 10

Your teacher will read this poem.

### The Moon

The Moon, the Moon

Up, up, up in the sky

Looking down to us like one big eye

We love to sit and watch the full Moon

We love to tell stories in the moonlight

The Moon is our friend

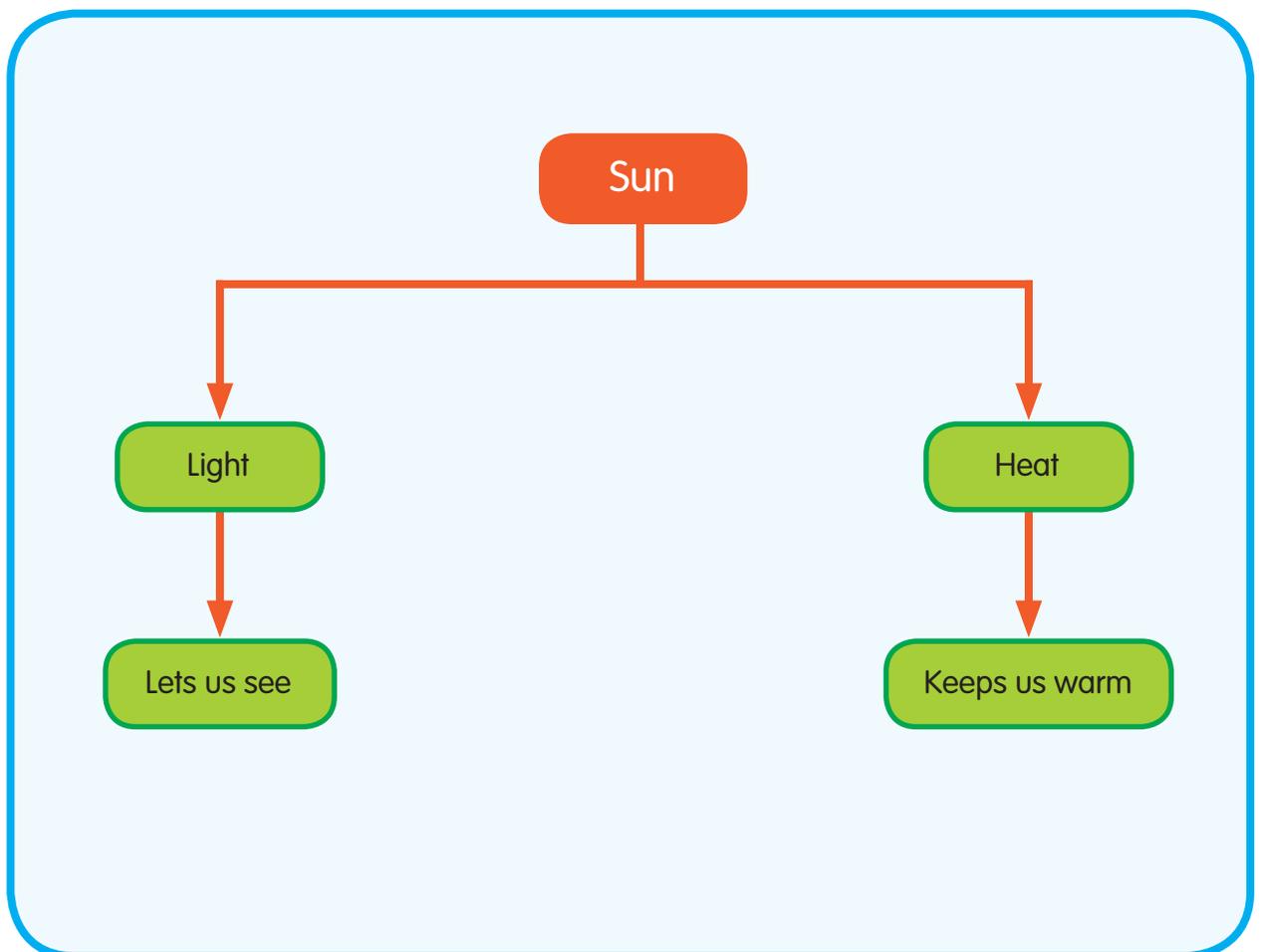
It gives us light at night

The Moon is great.



- 1 The Sun gives us light.
- 2 The Sun gives us heat.
- 3 There is no sunlight at night.
- 4 The Moon gives us light at night.
- 5 We should never look directly at the Sun.
- 6 We sleep at night.
- 7 We go to school and play during the day.
- 8 Most animals come out during the day.
- 9 Some animals come out at night.

## Concept map



# Revision

Tell your teacher which things we do during the day and which things we do at night.

Activity	Day or night?
	
	
	
	
	

# Glossary

## A, B

air	a gas that surrounds the Earth
animal	a living creature (including humans) that is not a plant

## C

crops	plants grown for food or to produce clothing
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## D

dark	when there is no light
day	the period when it is light between sunrise and sunset

## E

electricity	a type of energy used to light, heat and move things
energy	something that allows us to do things

## F, G

food	something we eat to keep us alive
fresh	still good to eat
garden	an area of land used for growing plants
grow	to become larger

## H

heat	the form of energy that we feel as warmth
------	---

## I, J, K

instrument (musical)	a special device for making musical notes
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## L

light	the form of energy that makes it possible for the eye to see
living	being alive and in an active state

<b>M</b>	
man-made	made by people, not by nature
materials	anything used for building or making new things
move	to change position or place
<b>N</b>	
natural	produced or made by nature
night	the period of darkness between sunset and sunrise
non-living	not alive or active
<b>O</b>	
object	anything that has shape and can be seen or touched
<b>P, Q</b>	
plants	living things that use sunlight to make their own food
pulling	bringing closer by using force
pushing	moving away by using force
<b>R</b>	
rainbow	a curved arc of light of many colours across the sky
<b>S</b>	
shape	the form of the outer edge or surface of an object
squeezing	pressing firmly together
sound	anything that people or animals hear with their ears
<b>T, U, V</b>	
twisting	to wind something around
<b>W, X, Y, Z</b>	
water	the clear liquid that is in rain. People, plants and animals drink water and need it in order to live



# Solomon Islands Primary Science

LEARNER'S RESOURCE BOOK

Year 1

Science is an exciting subject. At primary level, it is also very enjoyable. The *Solomon Islands Primary Science Year 1 Learner's Resource Book* is filled with engaging activities supported by colourful illustrations and photos that enable learners to discover and understand the physical and living world.

This Learner's Resource Book is one of a series for Solomon Islands Primary Science for Years 1–6. The series helps learners to achieve the *Key Learning Outcomes of the Primary Science Syllabus (2008)* and was developed during the Solomon Islands school curriculum reform from 2005 to 2013. The books are designed to help learners to develop their understanding of scientific concepts in an interesting and engaging way. The series also incorporates Solomon Islands indigenous knowledge and understanding of the natural world.

The Ministry of Education's Key Learning Objectives are addressed in many of the activities. Hands-on investigations allow learners to explore their physical and living world using everyday materials, and to learn about key scientific concepts, skills and understanding, as well as to explore the scientific way of working.

This Learner's Resource Book will help learners to gain knowledge, understanding and skills from their environment and introduces them to the language of science and to new ideas.

