

Alavi

Primary



Learner's Book

2

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Introduction

The Primary Science book has been developed to match the Cambridge International Examinations Primary Science curriculum framework. It is a fun, flexible and easy to use course that gives both learners and teachers the support they need. In keeping with the aims of the curriculum itself, it encourages learners to actively engage with the content, and develop enquiry skills as well as subject knowledge.

The content pages contain many images and questions that you can use as a basis for class discussions. The emphasis in this stage is on linking what learners know about everyday life to scientific ideas.

Throughout the book, you will find ideas for practical activities which will help learners to develop their Scientific Enquiry skills as well as introduce them to the thrill of scientific discovery.





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CHAPTER

1

Going outside



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
1.1. Our weather	identify different types of weather.
1.2. Today's weather	practise using weather vocabulary.

Word bank

1	temperature	2	rainy	3	windy	4	sunny	5	cloudy
6	cold	7	warm	8	frosty	9	snowy	10	weather

* 1.1. Our weather

Each day the temperature, wind and amount of sun and rain can change. This is our **weather**.

The weather makes us think about what we do and what we wear.



Look at the pictures.

Why are the children wearing these clothes?

* 1.2. Today's weather

Talk about the weather today.

Is it the same as yesterday?

Is it **sunny** or **cloudy**?

Is it **warm** or **cold**? Is it **frosty**?

Is there any rain, snow or hail?

How **windy** is it?

You will need:

large poster paper a digital camera.



Make a poster to show what the weather is like.



The weather is not always the same.

Look at the picture. You can see a rainbow when it rains and the Sun is shining at the same time.

What is the weather like?

Look at the table below. What is the weather like in each picture?

What is the temperature? Hot, warm or cold?

	weather	temperature
	snowy	cold
		
		
		
		
		

Look and learn



sunny



rainy



cloudy



snowy



windy



stormy

What is the weather like?
What is the temperature?



CHAPTER

2

States of the matter



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

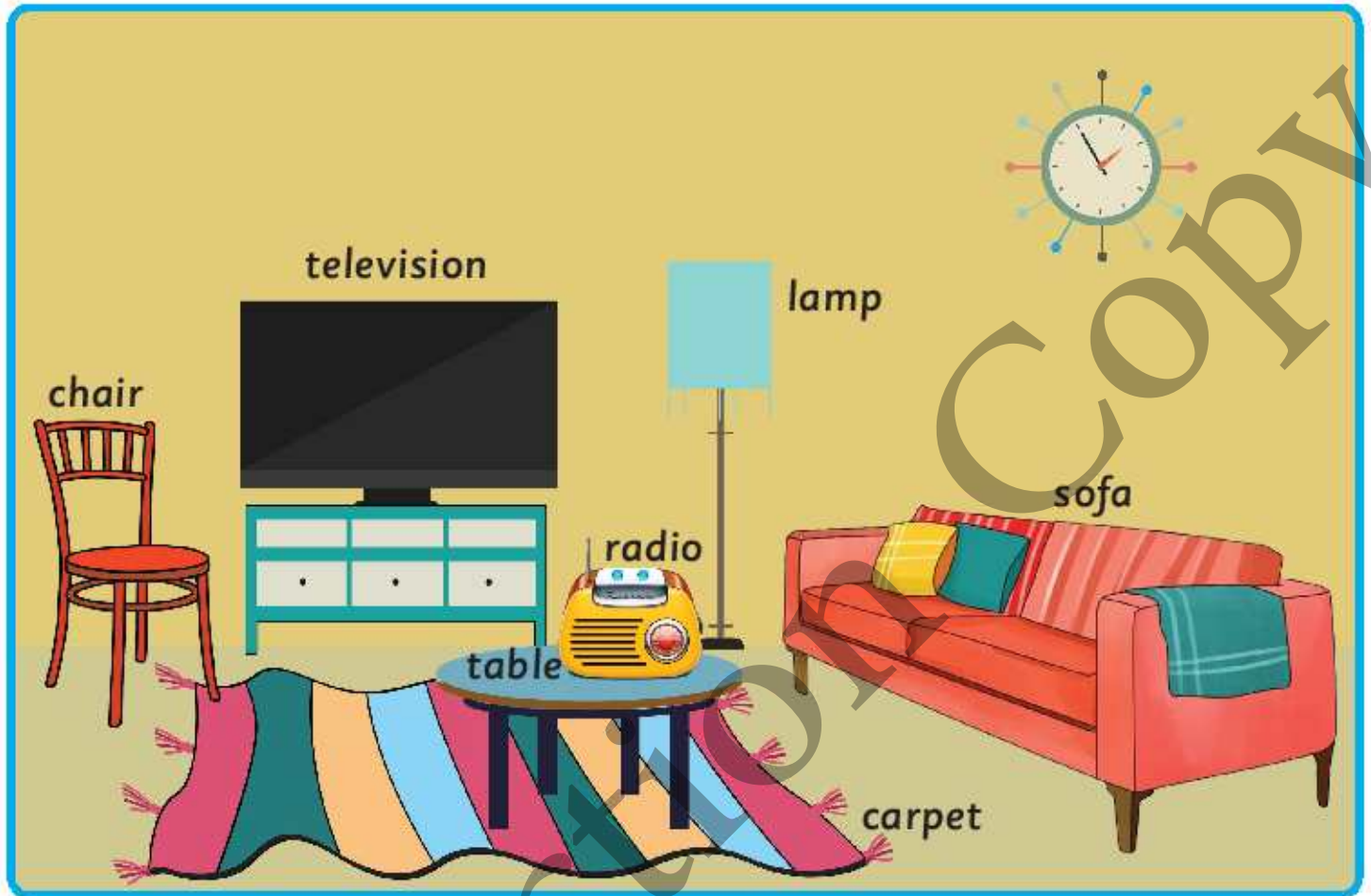
Topic	In this topic, learners will:
2.1. What is a solid?	recognise what a solid is and name a few examples.
2.2. What is a liquid?	recognise what a liquid is and name a few examples.
2.3. What is a gas?	recognise what a gas is and name a few examples.

Word bank

1	solid	2	television	3	sofa	4	lamp	5	radio
6	chair	7	table	8	carpet	9	definite	10	shape
11	rough	12	smooth	13	liquid	14	container	15	water
16	gas	17	air						

2.1. What is a solid?

This picture shows objects with their names.



They are all **solids**.

Each solid has a definite shape.


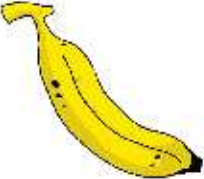




What solids do you see?



Point to the objects as each is named.

A solid has a definite shape.

Complete the table.

✓	solid	rough	smooth
			
			
			
			
			
			

* 2.2. What is a liquid?

This picture shows **liquid**.



What is the liquid that you see? Water.

What is in the water? A boy and a sponge.

What is in the bathtub? Water.

What has changed about the water? The shape.

**A liquid takes the shape of its container.
Water is a liquid.**

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Circle the liquids.



Poem

Living in water deep and blue
Are lots of fish and seaweed, too
The fish swim around, yes, this is true
In water deep and blue

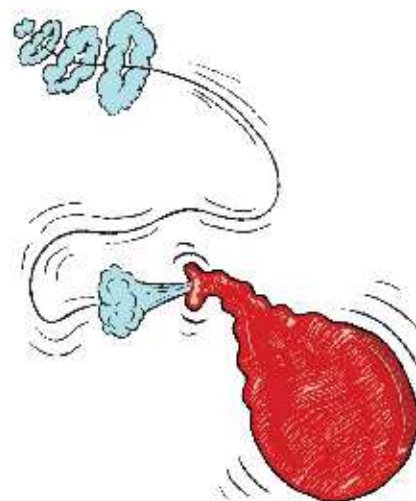
* 2.3. What is a gas?

This picture shows that air is all around you



You cannot see air,
but you can see how it makes things move.

Air is made from **gases**.
Gases take the shape of their container.



**A gas takes the shape of its container.
Air is made from gases.**

Primary Science

Match.



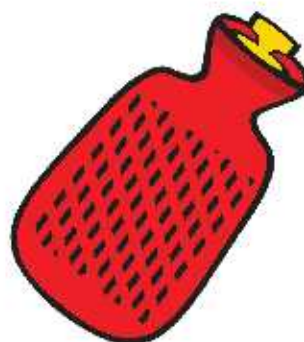
Gas



Solid



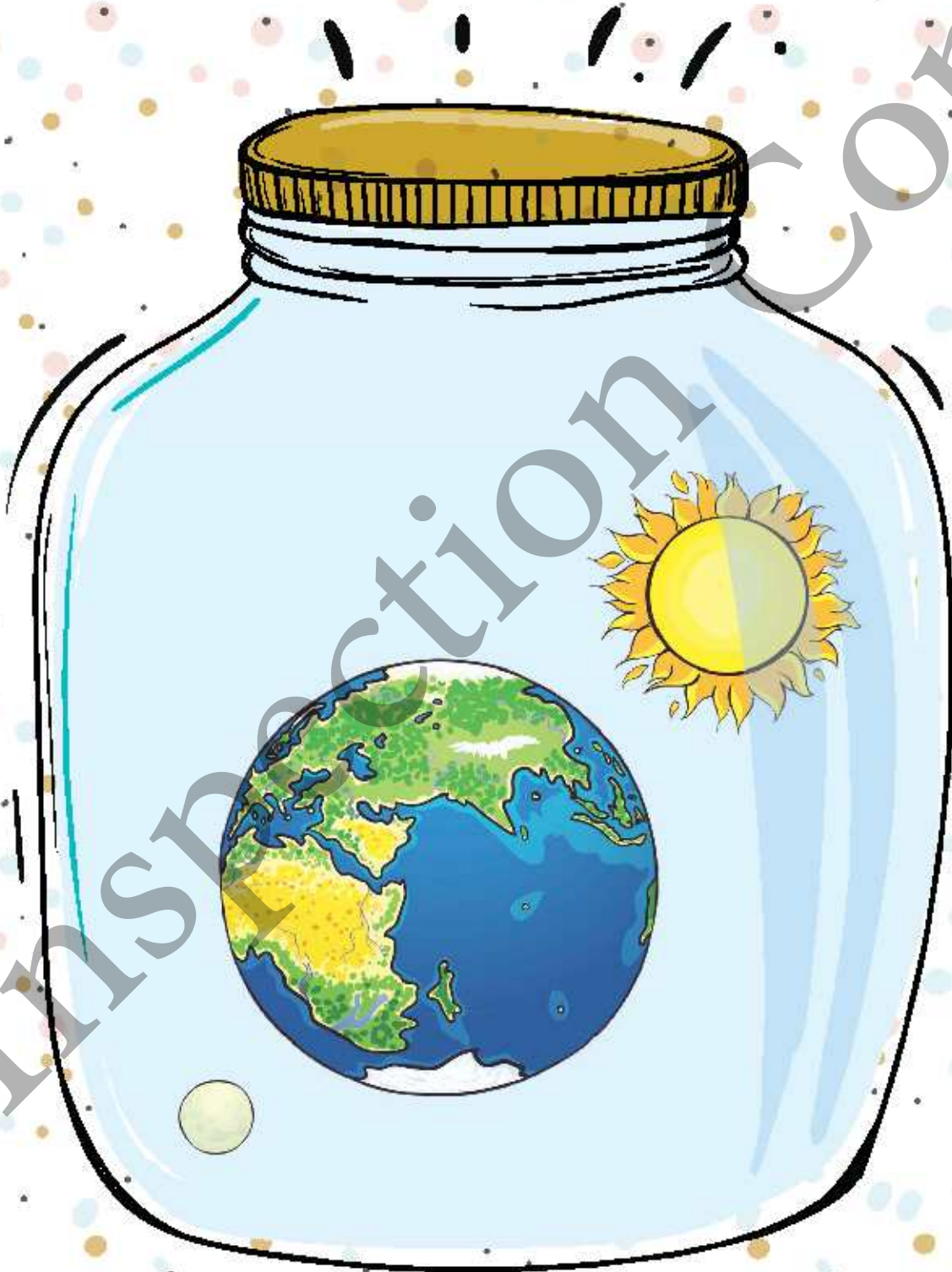
Liquid



CHAPTER

3

The Earth and the Sun



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
3.1. Light sources	recognise that there are many light sources, for example the Sun, and that they all make light.
3.2. Making shadows	explore how shadows are formed.
3.3. Day and night	explore how we get day and night because the Earth spins.

Word bank

1	light	2	source	3	the Moon	4	the Sun	5	reflect
6	shadow	7	block	8	object	9	spin	10	day
11	night	12	dark						

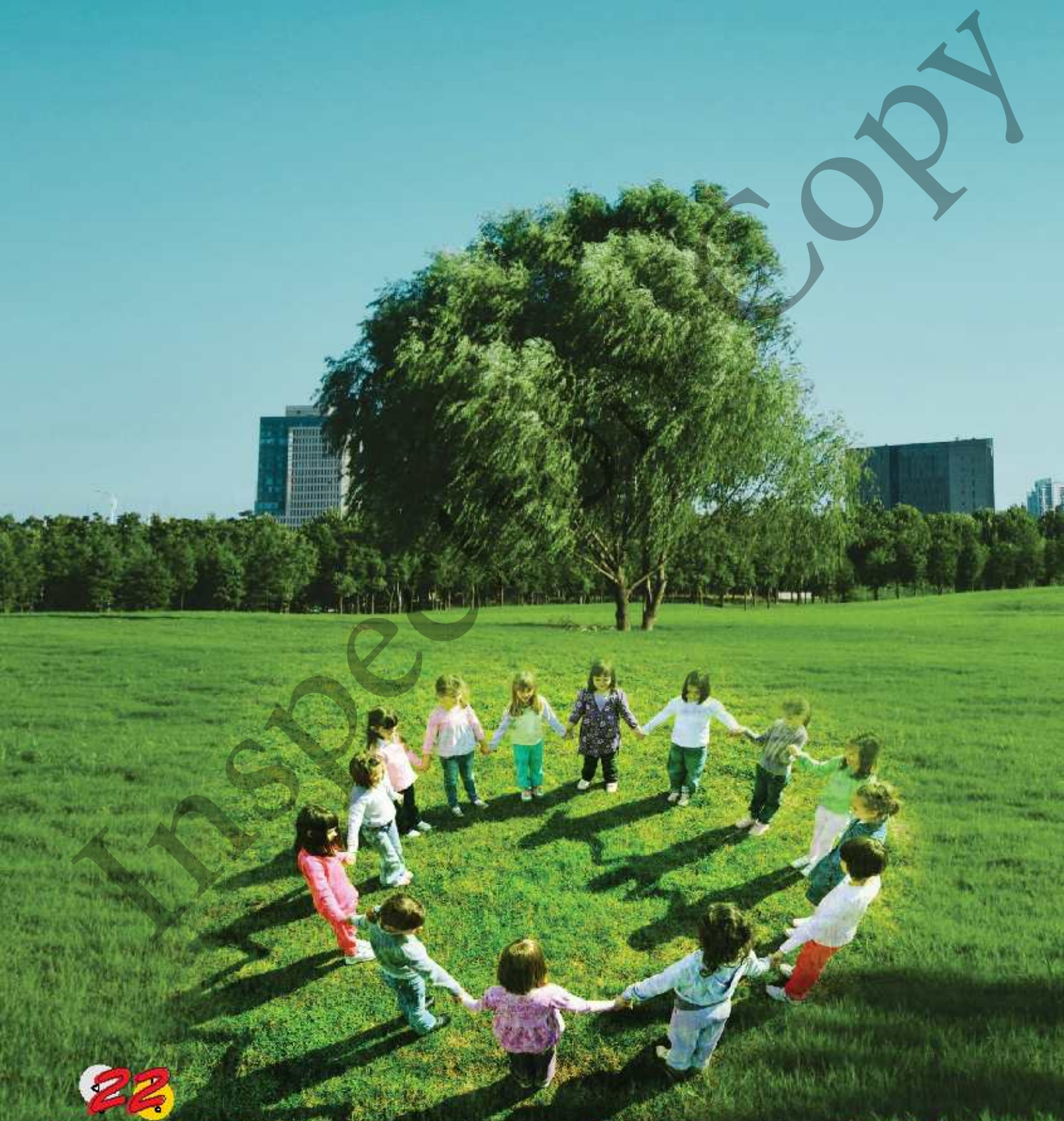
* 3.1. Light sources

A light source makes **light**.
How many light sources can you see here?

The Moon is not a **light source**.
The Moon reflects light from the Sun.

✿ 3.2. Making shadows

A **shadow** is made when an object blocks light.



Copy

* 3.3. Day and night

Light from the Sun comes to the Earth.

Some of the Earth is in the light but some of the Earth is in the dark.



The Earth **spins** so all parts of the Earth have time in the light and time in the dark. We call these times **day** and **night**.





The Earth is like a spinning ball!


The boys have made a model to show day and night.

The ball is planet Earth and the torch is the Sun.



-  Is it day or night at the X?
-  What will happen to the X as the boys slowly turn the ball in the direction of the arrow?

Think about it!

-  If the Earth did not spin, what would happen to day and night if you lived on the dark side?

CHAPTER

4

Living things



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
4.1. Living and non-living	identify the seven needs of living things.
4.2. Growth	learn the stages of growth in humans, plants and animals.
4.3. How do animals move?	compare the ways different animals move.
4.4. Animals habitats	identify where different animals live.
4.5. Sorting living things	sort living things into groups.

Word bank

1	use	2	oxygen	3	sense	4	produce	5	young
6	need	7	food	8	water	9	move	10	grow
11	make	12	waste product	13	baby	14	toddler	15	child
16	teenager	17	adult	18	seed	19	plant	20	develop
21	become	22	fully grown	23	chick	24	chicken	25	come out
26	tadpole	27	egg	28	frog	29	life cycle	30	bird
31	fly	32	kangaroo	33	hop	34	turtle	35	crawl
36	horse	37	run	38	fish	39	swim	40	goat
41	walk	42	habitat	43	home	44	desert	45	mountain
46	town	47	sea	48	rainforest	49	sort	50	fur
51	scale	52	feather						

4.1. Living and non-living

The plant pot is alive because it has a plant in it.

The bee is alive because it's flying.

The plant is alive because it's green.

The bee and plant are alive because they both need air.

Do you agree with what the learners say?

Which things are **alive**?

Which things in these pictures are alive?



Everything that is alive

- uses **oxygen**
- has senses
- can produce **young**
- needs food and water
- moves
- grows
- produces **waste products**



Living or non-living?

Look at the pictures. Are these things living or non-living?



rose



river



spider



penguin



watch



cactus

Think about it!

A car can move
but it is non-living.



It's alive!

Observe things outside.

Fill in the table. Two examples have been given, but you must decide if they are living or non-living.



I observe a ...	mango tree	bicycle				
needs oxygen	✓	✗				
needs food and water	✓	✗				
can move	✓	✓				
has senses	✓	✗				
can make young	✓	✗				
grows	✓	✗				
makes waste products	✓	✗				
living or non-living?						

* 4.2. Growth

Animals grow in stages.

How do animals change and grow?



egg



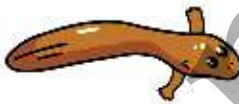
chick



chicken



egg



tadpole



frog

Look at these pictures, where are you now in the cycle?



baby



toddler



child



teenager



adult

All living things have young. The young grow. An adult is fully grown.

Name the young for each of these animals.



Plants grow in stages.



A seed is planted.



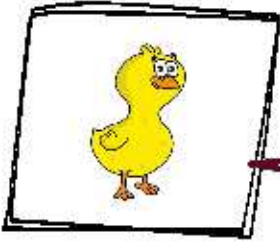
The seed begins to grow.



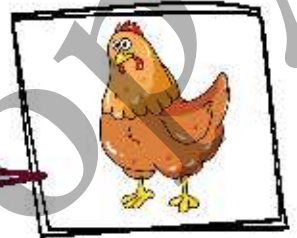
A young plant develops.



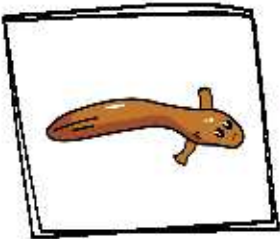
The young plant becomes a fully grown, flowering plant.



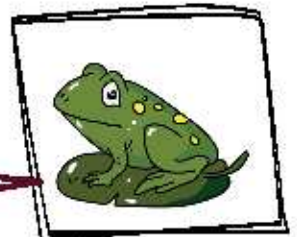
This picture shows a chick.
A chick is a baby chicken.
The chick comes out of an egg.



This picture shows a chicken.
The chick grows and becomes
a chicken.



This picture shows a tadpole.
A tadpole is a baby frog.
The tadpole comes out of an egg.



This picture shows a frog.
The tadpole grows and becomes
a frog.

Animals change as they grow.

The life cycle of a frog is egg, tadpole and frog.

The life cycle of a chicken is egg, chick and chicken.

Animals develop in different ways.

4.3. How do animals move?



bird / fly



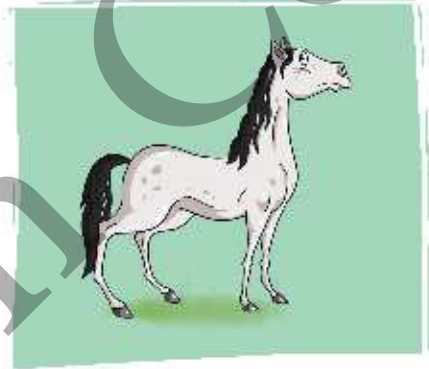
turtle / crawl



fish / swim



kangaroo / hop






horse / run



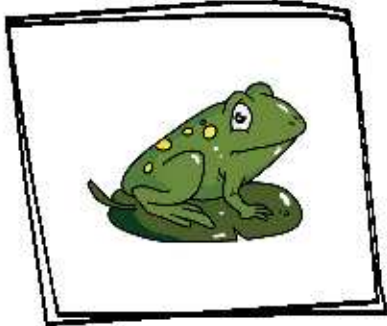
goat / walk

Some animals run, fly, walk, swim, crawl and hop.

-  Animals can move from place to place.
-  Different animals move in different ways.
-  Some body parts help animals move.

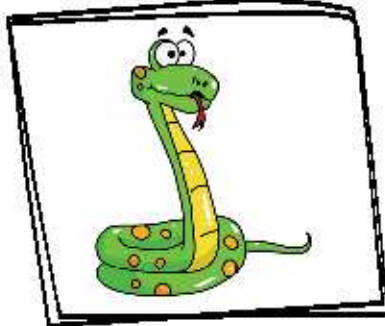
Match.

crawl



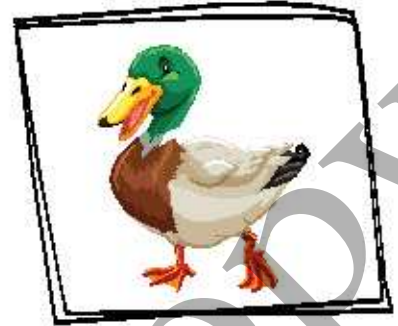
frog

swim



snake

hop



duck

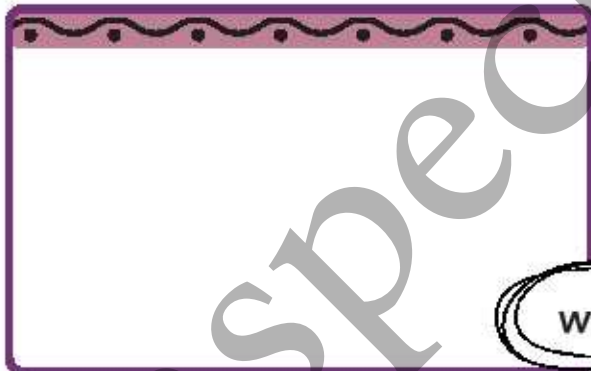
Draw.



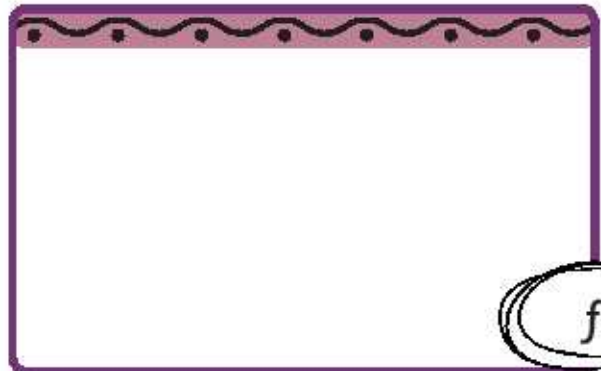
run



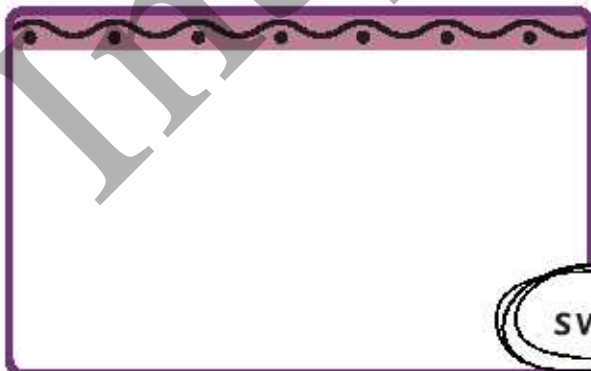
hop



walk



fly



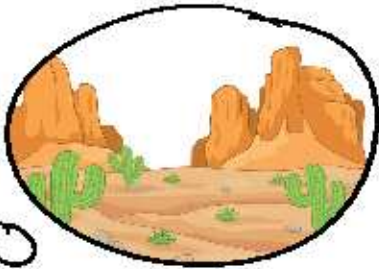
swim



crawl

* 4.4. Animal habitats

A **habitat** is the home of an animal. Animals live in different places. Look at the pictures. Draw a line from the habitat to the animal.



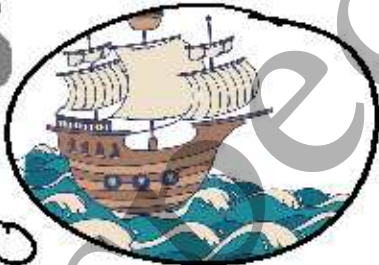
desert



mountains



town



sea



rainforest



jaguar



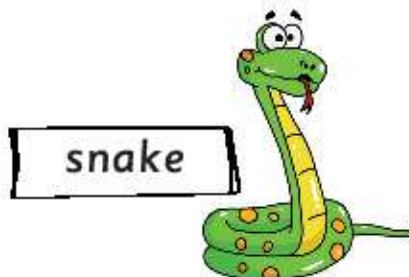
blowfish



mountain goat



sparrow



snake

4.5. Sorting living things

Scientists who study living things need to be able to group them.

Help the zookeeper sort the animals into the correct group.

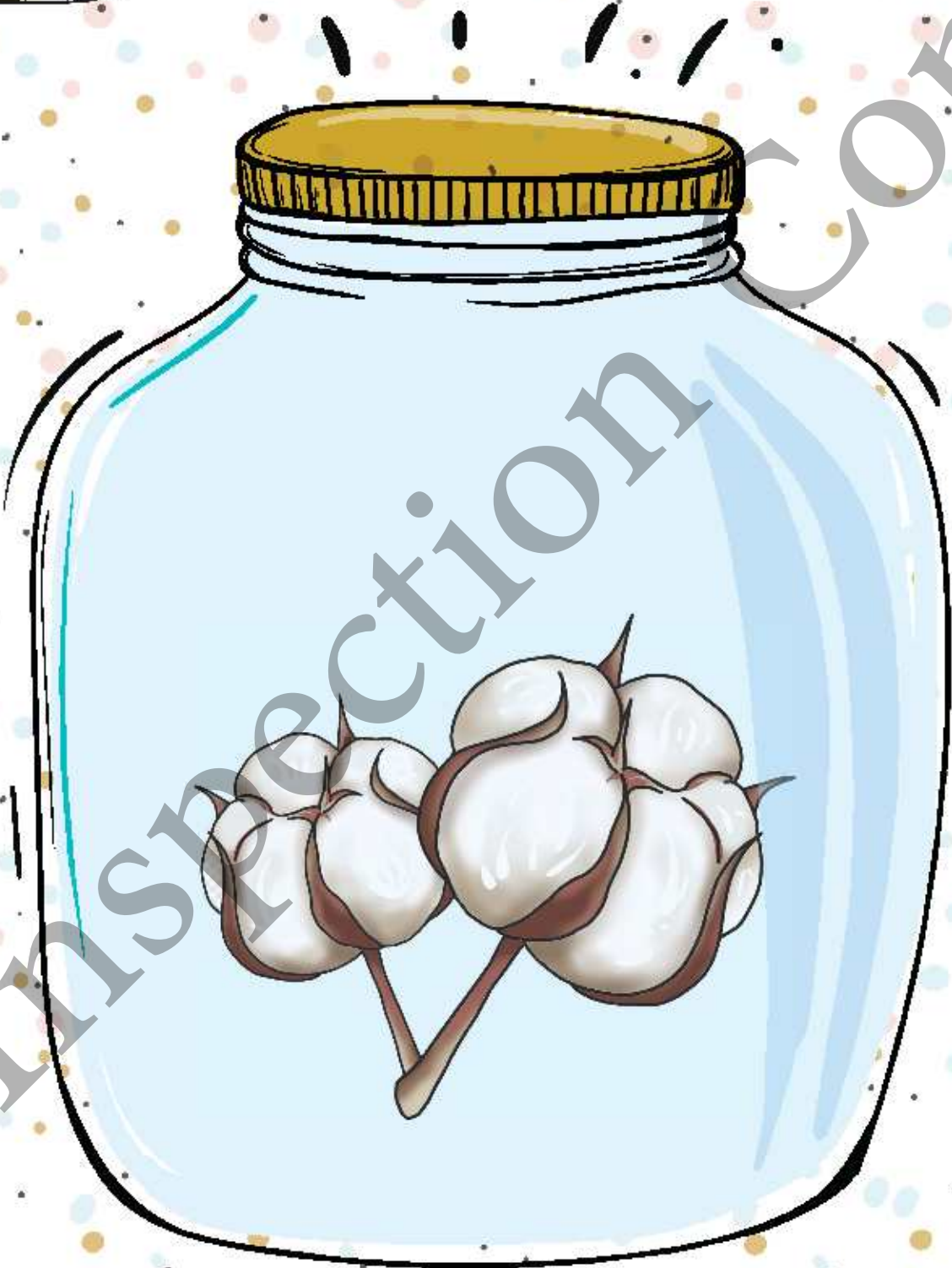


Think about different animals and fill in the blanks.

- have fur.
- have scales.
- have feathers.

CHAPTER
5

Materials around us



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
5.1. Natural materials	identify the natural materials.
5.2. Changing materials	explore some ways to change the shape of materials.

Word bank

1	natural	2	material	3	nature	4	cotton	5	wood
6	wooden	7	slate	8	plastic	9	paper	10	glass
11	man-made	12	bend	13	twist	14	stretch	15	squash

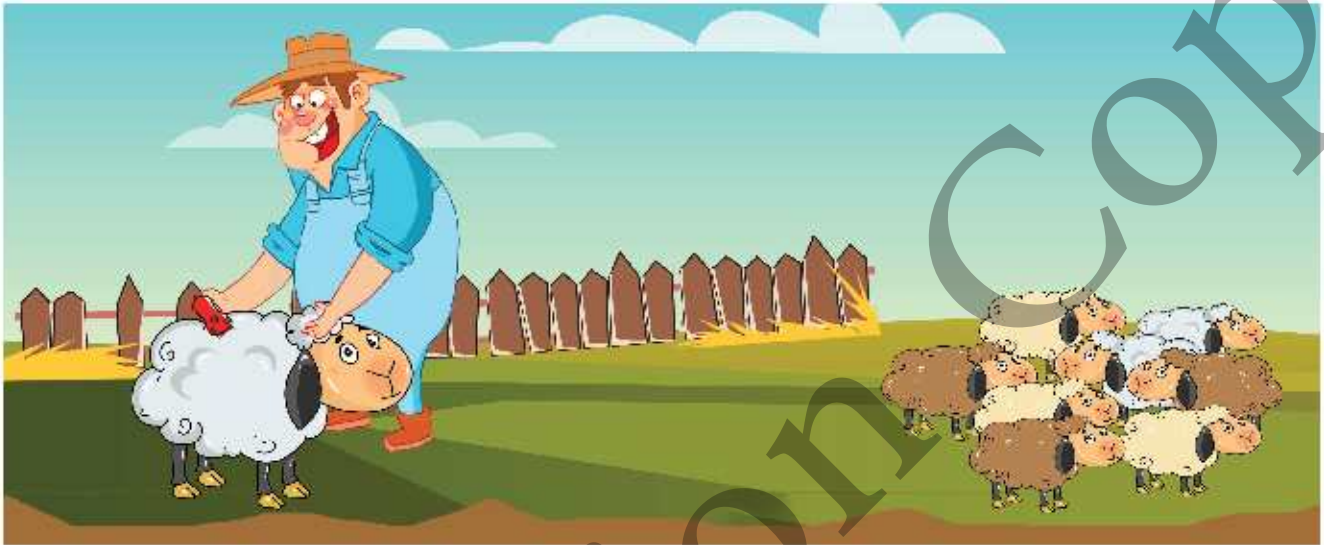
* 5.1. Natural materials

Rocks are **natural** materials.

They come from the ground.

Natural materials come from nature.

There are many other natural materials, like rubber. Rubber comes from a tree.



What natural materials can you see in these pictures?

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Here are some other natural materials. ➡



cotton



wood



slate

These materials are **man-made**. They are made by people. ➡



paper



glass



plastic

Where do natural materials come from?

Match these natural materials with where they come from.



cows



trees



cotton



rain

Think about it!

Paper is not a natural material. People make paper from wood.

 5.2. Changing materials

You can bend, twist, stretch, and squash most materials. This will change the shape of the materials.



bend



twist

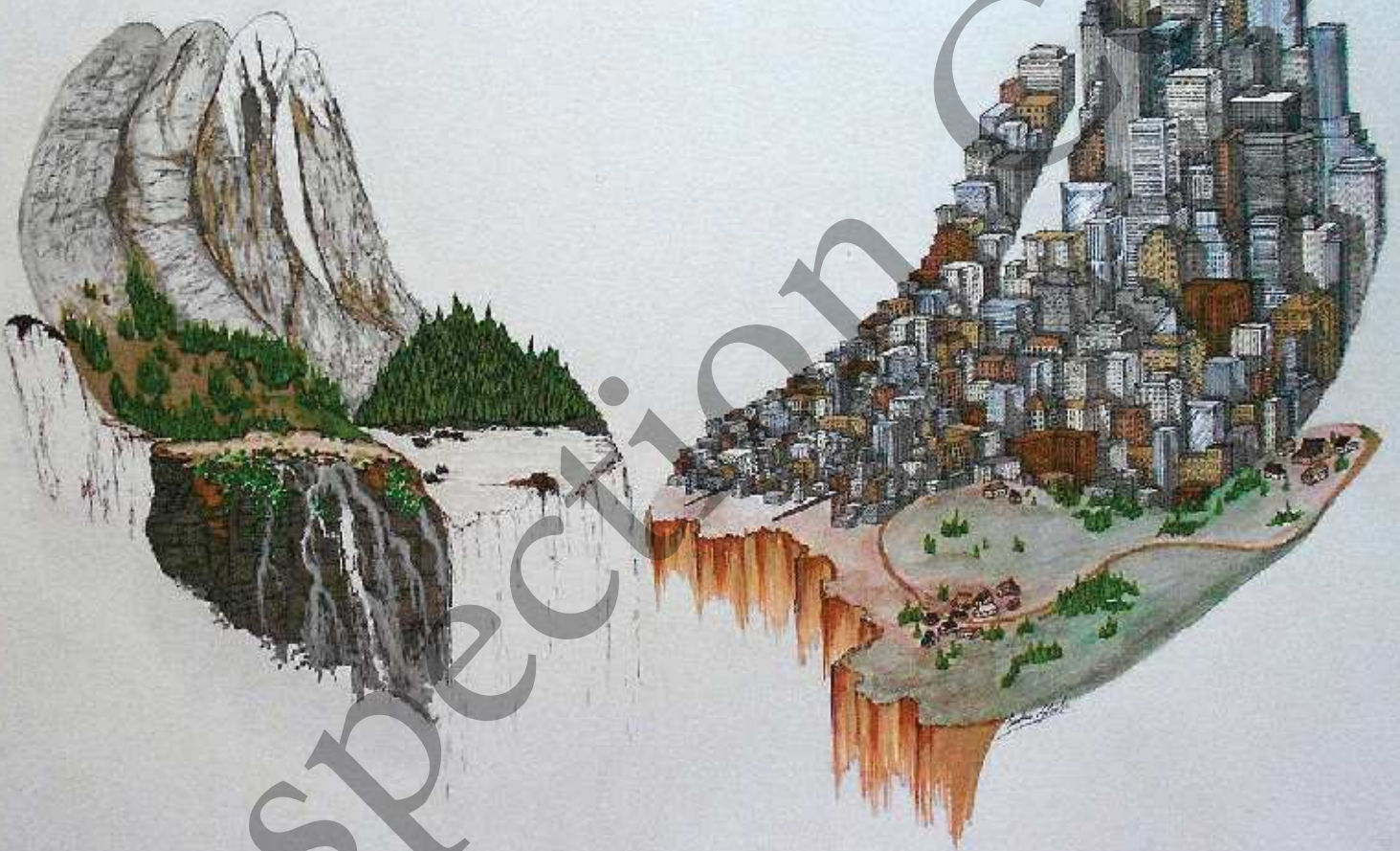


stretch



squash

There are a lot of natural and man-made materials in our world.



CHAPTER
6

Our five senses



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
6.1. Hearing and touch	link each sense to the correct sense organ. identify times that we use our senses.
6.2. Taste and smell	test their sense of smell and taste.
6.3. Sight	learn about parts of the human eye. learn about the eyesight of different animals.

Word bank

1	sense	2	smell	3	sight	4	touch	5	hearing
6	taste	7	sweet	8	sour	9	bitter	10	salty
11	pleasant	12	unpleasant	13	eyelash	14	pupil	15	eyelid
16	good	17	poor	18	eyesight				

* 6.1. Hearing and touch

Our five senses

Look at Anita, draw arrows from the labels to the parts of her body that give her each sense.



Which sense would I use?

Look at each picture. Would you use the sense of hearing or touch?



I would use my sense
of



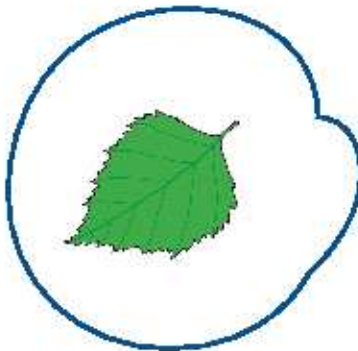
I would use my sense
of



I would use my sense
of



I would use my sense
of



I would use my sense
of



I would use my sense
of

6.2. Taste and smell

Our senses of smell and taste often work together. They help us to avoid eating bad food.

Take care when smelling things in case they are dangerous. Always smell from at least 10 cm away.

Smell and taste!

Find five foods. Record how they smell and taste.



I smelled
a kiwi fruit

It smelled
pleasant



I tasted

It tasted



I smelled

It smelled

I tasted

It tasted



* 6.3. Sight

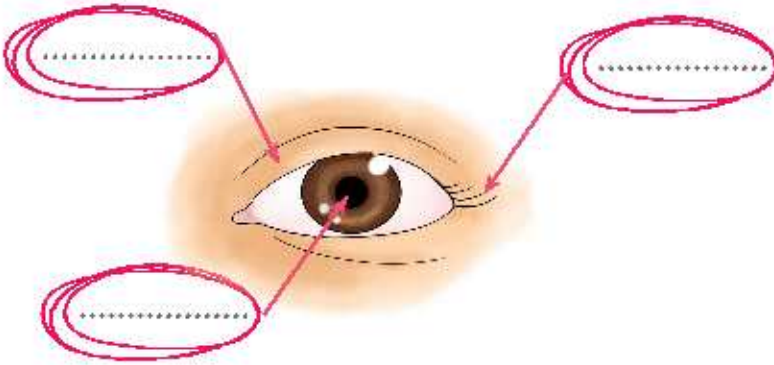
Parts of the eye

eyelash

pupil

eyelid

Use the key words to label the picture of the eye.



Look after your eyes.
Never put things in your eye
and never look at the sun.



These animals
use their very
good eyesight
for hunting
prey.



This mole does not have very
good eyesight. Instead, the
mole uses his nose to find
his way around.

Good and poor eyesight?

Choose an animal to fill each gap.

A/ An has very good eyesight.

A/ An has poor eyesight.

Note

