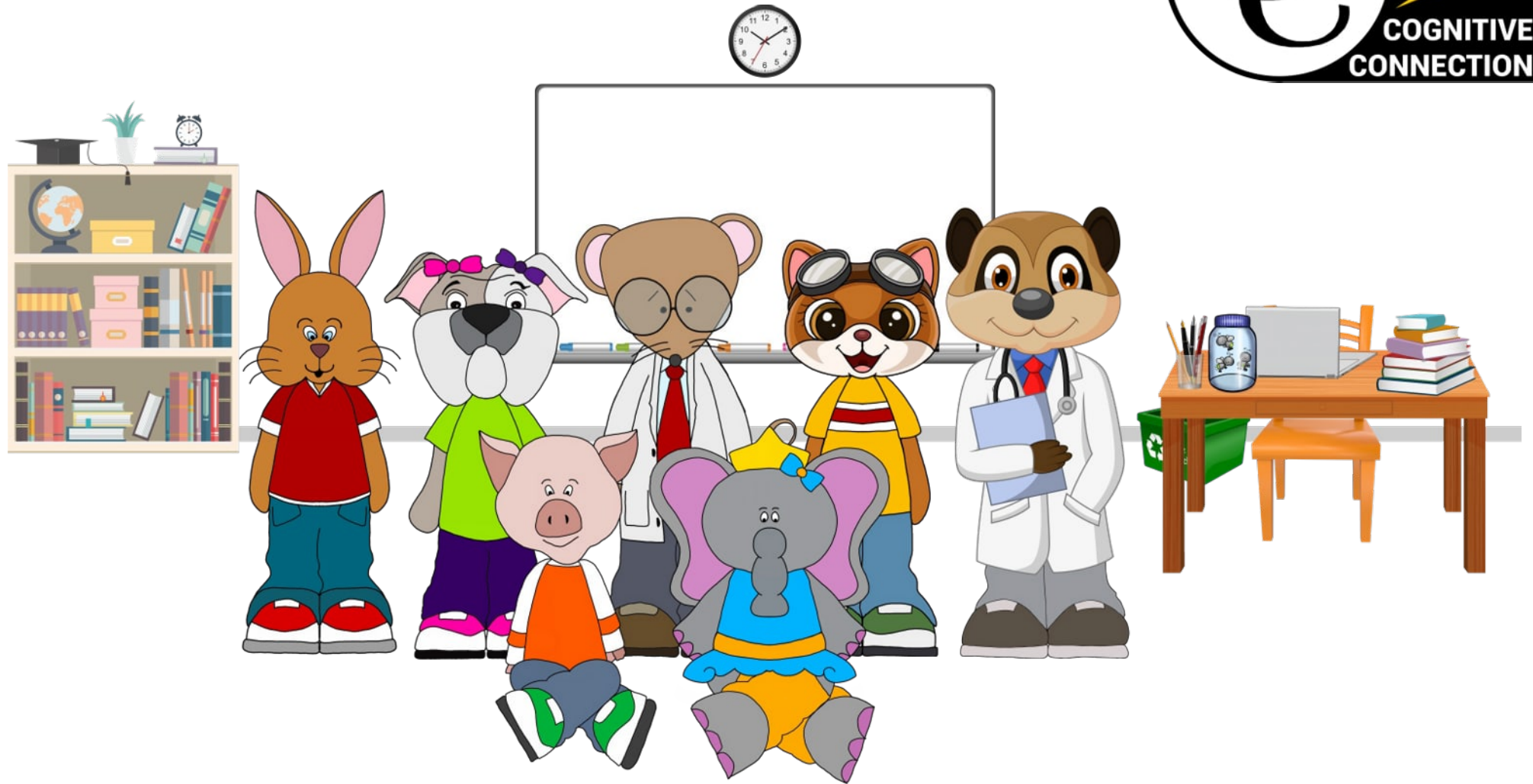


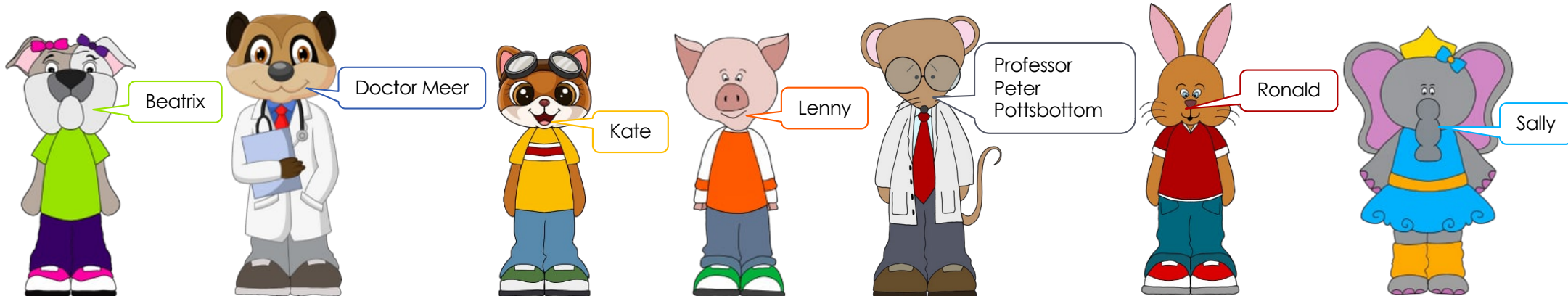
SCIENCE



STAGE 3



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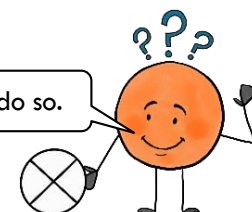


**THIS
SCIENCE
YEAR 3
LEARNER BOOK A
BELONGS TO:**

Name: 

Written and developed by The Cognitive Connection cc 2025
For Cambridge Primary Science 0097 programme based for the learning objectives –
Thinking and Working Scientifically – Biology – Chemistry – Physics – Earth and Space – Science in Context.

Ask for help if you need to do so.





The animal kingdom is made up of all living things that need to eat plants, other animals, or both to get their energy. All animals eat other living or once living things, either plants (herbivores) or animals (carnivores) or both (omnivores).

The animal kingdom



People, or as scientists say, human beings are omnivores. They eat plants and animals to get energy, grow and stay healthy.



Jellyfish feed on marine plankton, a soup of microscopic living things, found in all parts of the oceans. Jellyfish will also eat small crabs, shrimp, small fish and eggs of ocean insects and fish.



Caterpillars, sometimes called hairy worms, eat leaves, grasses and other plants.



Sloths mainly live in tropical forests where they eat leaves. Sometimes sloths also like to eat fruit and flowers.

Ladybugs eat leaves, fungi such as mushrooms and other insects. Their favourite food are tiny insects called aphids.



Tree frogs catch flies, ants, crickets, beetles, moths and other small insects to eat.



Goldfish choose to eat insects, plants and the eggs of insects or other fish. Goldfish have small mouths so they can only eat small living things.



Kangaroos are found only in Australia. Their favourite food is grass, but they will eat any plants they can find.



Eagles are the hunters of the skies. They will catch and eat other birds and will swoop down from above to catch small animals like rabbits and mice.



The great African elephant eats grass, leaves, shrubs, fruits and roots. Elephants eat about 150kg of vegetation every day!



Crocodiles are hunters of all types of animals. If the crocodile can catch it, the crocodile will eat it!

Crabs are not picky eaters. They will eat anything from plants to small fish. They enjoy snails and worms and will even eat rotting meat!





Can you use the table to classify or sort the animals into groups of herbivores, carnivores or omnivores?














In the food column write what the animal eats. Then tick the column which matches the animal's diet.



Just like this!

Animal	Food (diet) plants or animals or plants and animals	Mark Animals that eat plants	Carnivores Animals that eat only other animals	Omnivores Animals that eat both plants and animals
African elephant	plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Animal	Food (diet) plants or animals or plants and animals	Herbivores animals that eat only plants	Carnivores animals that eat only other animals	Omnivores animals that eat both plants and animals
African elephant 				
caterpillar 				
crab 				
crocodile 				
eagle 				
goldfish 				
jellyfish 				
kangaroo 				
ladybug 				
sloth 				
tree frog 				





The animal kingdom is divided into two groups. Vertebrates and invertebrates.

Sorting animals or plants into groups based on shared characteristics is called classification.



Animal Kingdom

Vertebrates

All vertebrates have a backbone called a spine. Most are made up of bones put together to make a skeleton.



Doctors, veterinarians (people qualified to treat sick and injured animals) and scientific researchers use x-ray machines to take pictures or x-rays of living animal's skeletons.



crocodile



vulture



frog



fish



dog

The fish, crocodile, dog, frog and vulture (a type of bird) are all examples of vertebrates.

Invertebrates

The word invertebrate means not having a backbone.



Some invertebrates have a hard outer cover called an exoskeleton.



Beetles, crabs, bees, butterflies, spiders and grasshopper are all examples of invertebrate animals with an exoskeleton.



The biggest group of animals are insects. All insects have an exoskeleton. Beetles, bees, flies, mosquitoes, butterflies and grasshoppers are just a few examples of different types of insects. An easy way to see if an animal is an insect is to count their legs. All insects have 6 legs!

Worms are invertebrates with soft segments or sections.



Invertebrates like snails and muscles live inside a shell.



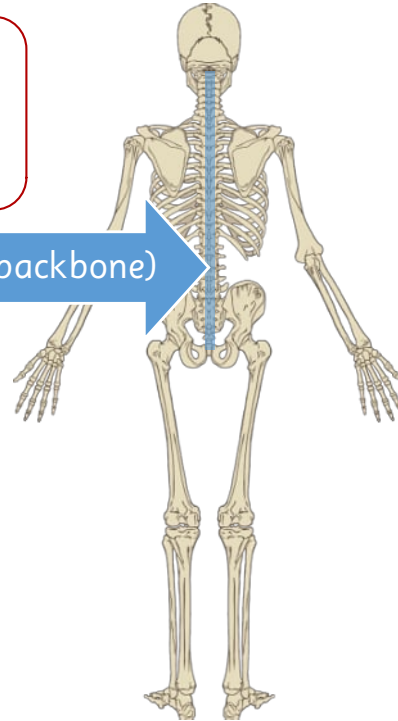


Can you find these vertebrate's spines (backbones)?

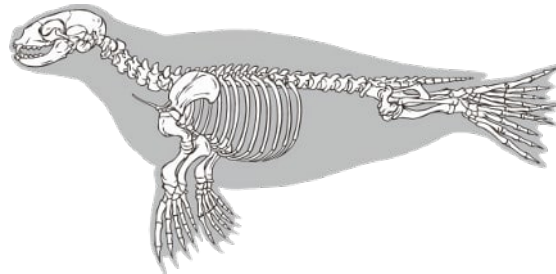


Humans are vertebrates. Humans have a strong skeleton made up of 204 bones! The spine is made up of 33 small bones called vertebrae.

Human Skeleton



Use a blue pen to trace over the seal and giraffe's spine.



Ask for help if you need to do so.



Match the animal silhouette with the correct skeleton.

Just like this!

Trace  and match : 



bat



dog



elephant



frog



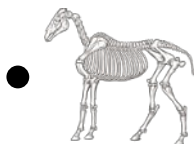
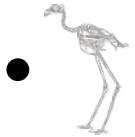
squirrel



secretary bird



horse





We can classify or sort vertebrates into five main groups of animals.

vertebrates

mammals



- Mammals are warm-blooded.
- Mammals have fur or hair covering their skin.
- Most mammals give birth to live young.
- Mammals produce or make milk which they feed to their offspring (babies).
- Mammals have lungs to breathe air.

birds



- Birds are warm-blooded.
- Birds have a beak or bill.
- Birds have feathers covering the skin of their heads and bodies and scales cover their feet.
- Birds lay eggs.
- Birds have lungs to breathe air.

fish



- Fish are cold-blooded.
- Fish have scales covering their skin.
- Most fish lay eggs.
- Fish live in water.
- Most fish breathe with gills.

reptiles



- Reptiles are cold-blooded.
- Reptiles have scales covering their skin.
- Most reptiles lay eggs.
- Reptiles have lungs and breathe air.

amphibians



- Amphibians are cold-blooded.
- Amphibians have a moist or slightly wet skin with no other covering. Amphibians can breathe through their skin.
- Amphibians lay eggs.
- Most amphibians change from water living animals that breath with gills when they are young to land living animals with lungs when they are adults. This is called a metamorphosis.

Warm-blooded animals

control their own body temperature. This means that their bodies stay the same temperature when it is cold or hot.

Cold-blooded animals body temperature drops when it is cold and increases when it is warm.





Can you classify these water loving vertebrates?



Read the name of the animal and look at the illustration, then look at boxes that have been already ticked for clues about the type of vertebrate. Once you have decided on the type of animal complete the table by making sure all the animal's features have been ticked.



Just like this!



Emperor penguins

Breathing: lungs ☒ gills ☐

Body temperature: warm-blooded ☒ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☒ scales ☒

Vertebrate: mammal ☐ bird ☒ fish ☐ reptile ☐ amphibian ☐



Turtle

Breathing: lungs ☐ gills ☐

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

Vertebrate: mammal ☐ bird ☐ fish ☐ reptile ☒ amphibian ☐



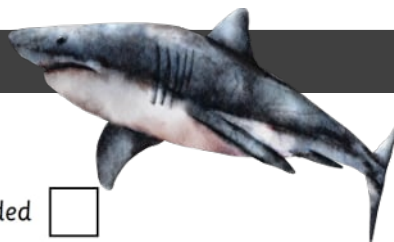
Great white shark

Breathing: lungs ☐ gills ☒

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☒

Vertebrate: mammal ☐ bird ☐ fish ☐ reptile ☐ amphibian ☐



Whale

Breathing: lungs ☒ gills ☐

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☒ feathers ☐ scales ☐

Vertebrate: mammal ☐ bird ☐ fish ☐ reptile ☐ amphibian ☐



Adult salamander

Breathing: lungs ☐ gills ☐

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

Vertebrate: mammal ☐ bird ☐ fish ☐ reptile ☐ amphibian ☒



Otter

Breathing: lungs ☐ gills ☐

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

Vertebrate: mammal ☒ bird ☐ fish ☐ reptile ☐ amphibian ☐





Scientists use **classification keys** to help group animals.

chameleon



Just like this!
Classification key

Does the animal have hair or fur?

mammal



yes

☐☒

no

Does the animal have feathers?

bird



yes

☐☒

no

Does the animal have scales?

yes

☒☐

no

amphibian

Does the animal have gills?

fish



yes

☐☒

no

reptile

A chameleon is a reptile.



Can you classify these animal?

Look at the picture and then answer the questions to group the vertebrates.



koi



Does the animal have hair or fur?

mammal



yes

☐☐

no

Does the animal have feathers?

bird



yes

☐☐

no

Does the animal have scales?

yes

☐☐

no

amphibian

Does the animal have gills?

fish



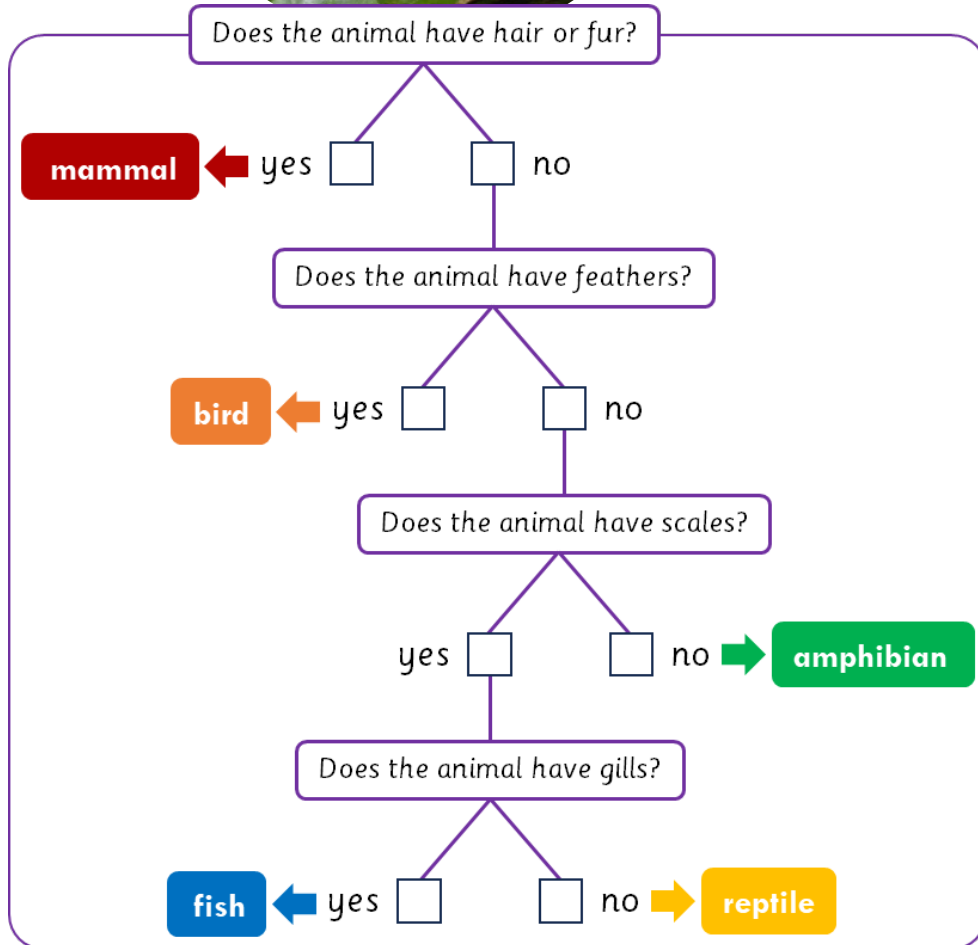
yes

☐☐

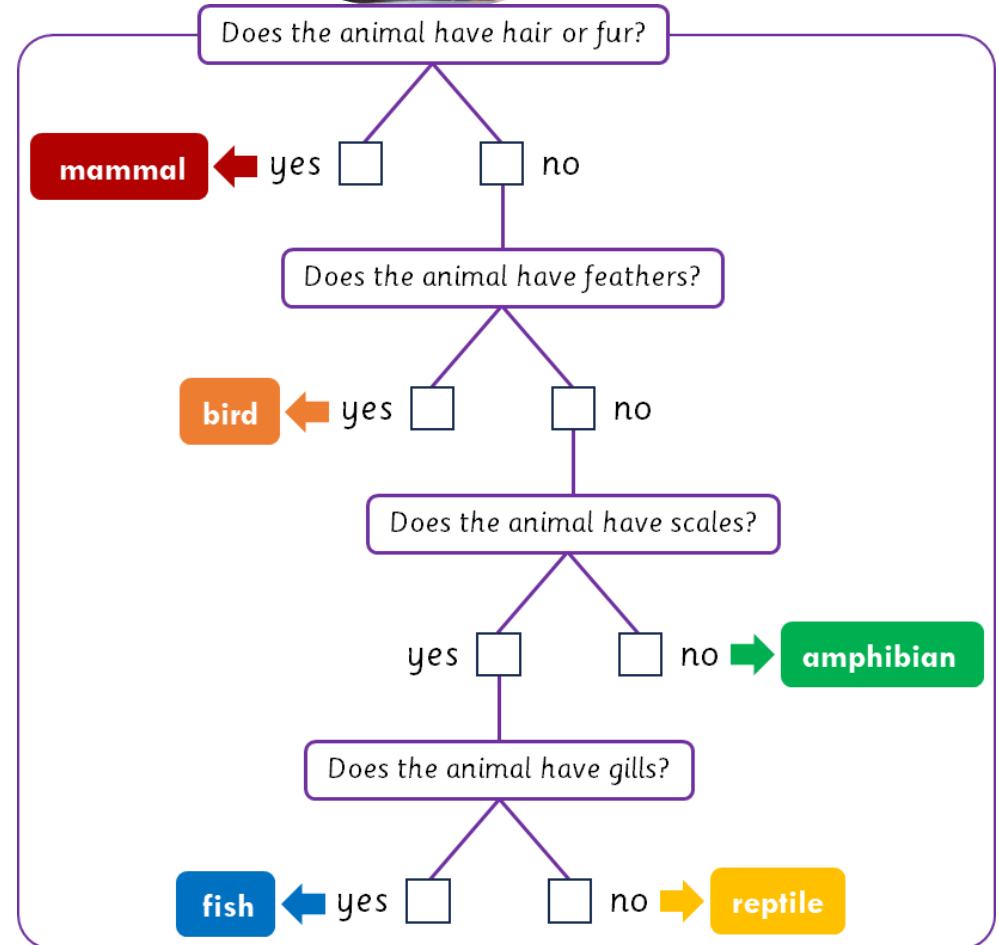
no

reptile

frog



hippopotamus



Animal Park





Can you finish the bar graph?



Find the insects in the Animal Park illustration.



Just like this!

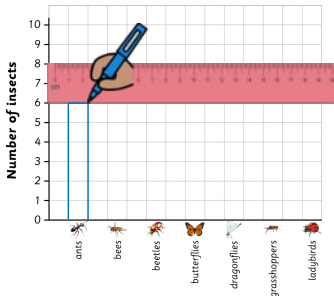


Look at the Animal Park illustration.

Find and count the insects.



Use a ruler to draw a bar above the insect. The height of the bar must match the number of insects.



Colour in the bar.

Write a title and label.

title

label

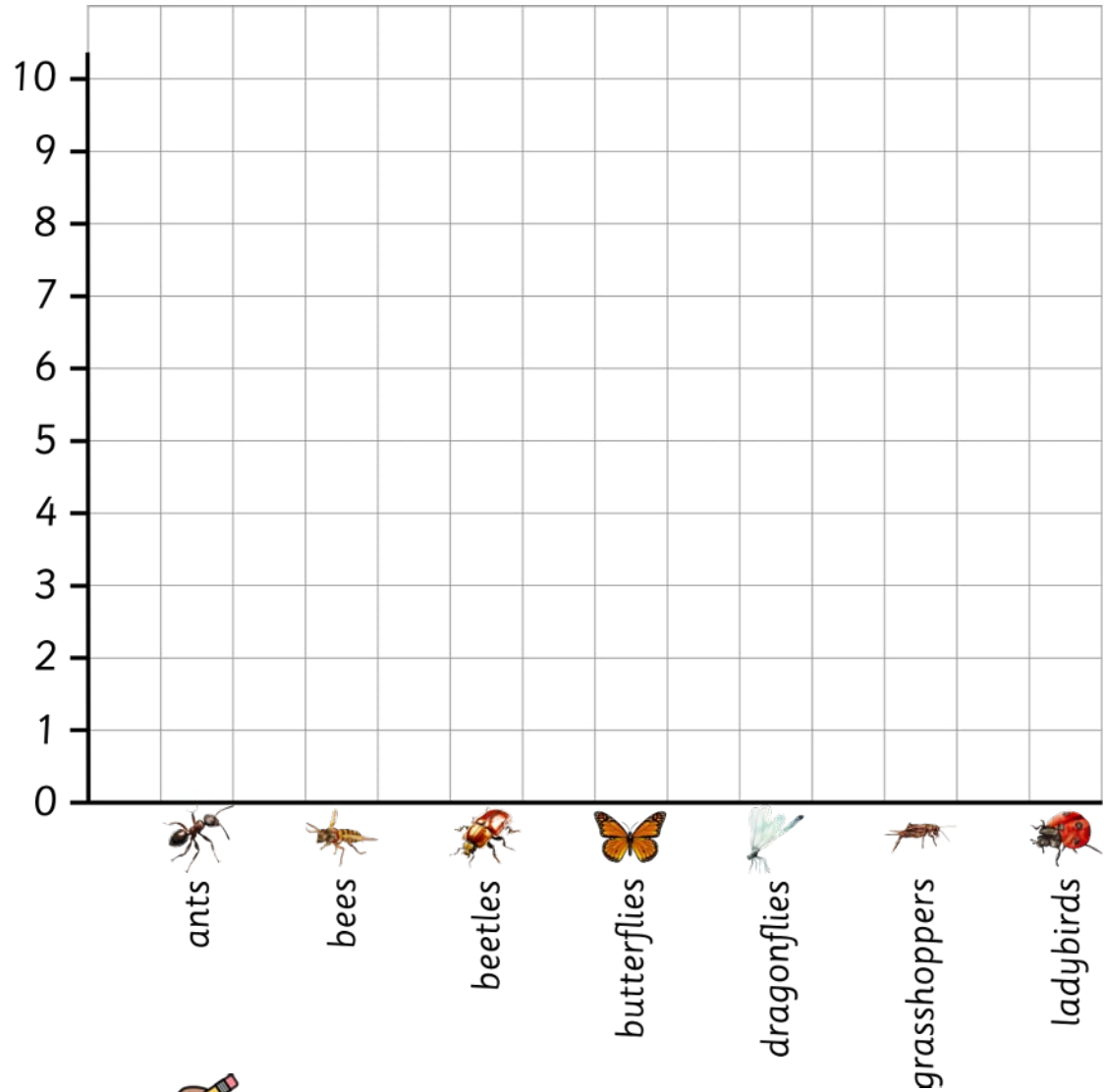


Ask for help if you need to do so.

title



Number of insects



label







Can you use a key to group the animals?



Use the key to classify the animals into two groups.

Key

-  vertebrate
-  invertebrate



Just like this!

Look at the animal.



Find the matching group on the key.



Choose the correct colour.



Colour in the circle.



ant



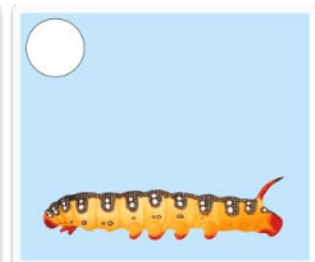
bee



beetle



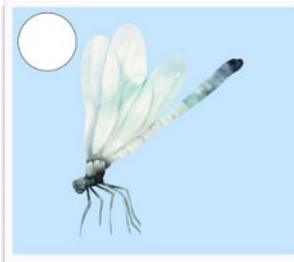
butterfly



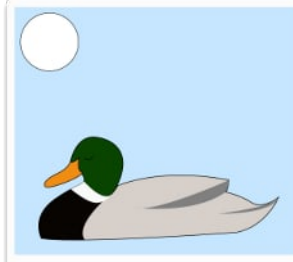
caterpillar



deer



dragonfly



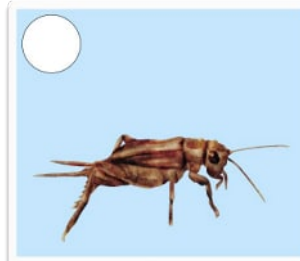
duck



eagle



frog



grasshopper



heron



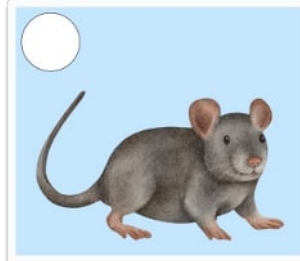
koi



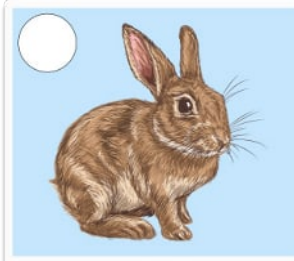
ladybird



mole



mouse



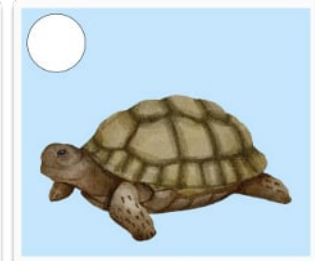
rabbit



snail



spider



tortoise



Ask for help if you need to do so.



Can you use a table to classify the animals?



Write a title for the table.
For each group, try add
three examples of your own.

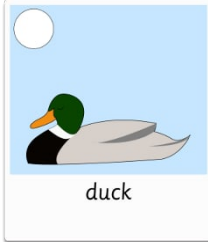


Just like this!

Look at the animal. Write the name in the matching column.



deer



duck



eagle



frog



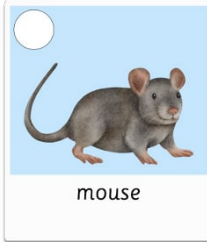
heron



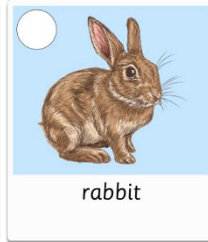
koi



mole



mouse



rabbit



tortoise

title 

amphibians	birds	fish	mammals	reptiles

Ask for help if you need to do so.



Materials

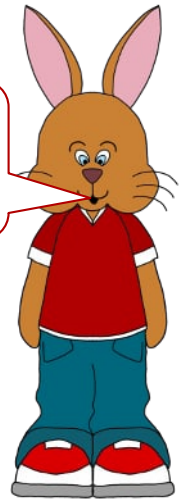


All objects and everything around us is made of different materials.



The air is made of different materials including water vapour, oxygen and carbon dioxide.

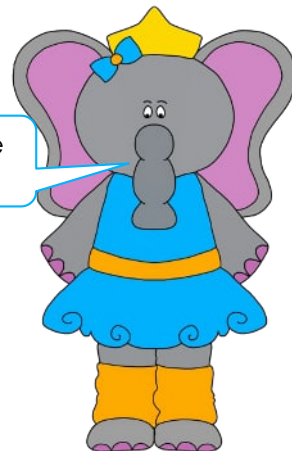
Water vapour, oxygen and carbon dioxide are all examples of **gaseous materials**.



Glass, fabric, rock, wood, soil and bricks are examples of **solid materials**.

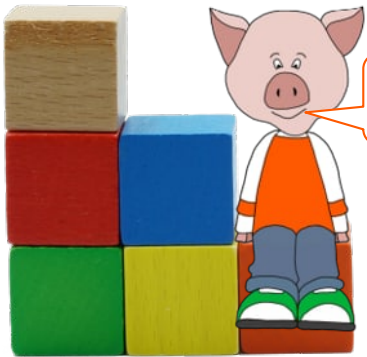
The soil is made of different materials. Soil is a mixture of dead plants and animals and rocks that have been broken into tiny pieces.

Water is an example of a **liquid material**.



Materials can be a liquid, solid or gas.

States of matter



All objects and everything around us is made of different materials. All **materials** are made of **matter**.

All materials are made of matter.

Materials come in **three different forms**:

- **solid**
- **liquid**
- **gas**

These are called the **states of matter**.

Matter is made of **particles**. Particles are very small and can only be seen using an electron microscope.

Matter is made of particles.

Particles move around and stick together in special ways to make or form the different states of matter.



Electron Microscope

Solids

Solids are materials that keep their shape unless they are squeezed, stretched twisted or bent.

In solids

- the particles are packed very closely together
- the particles hold on to each other so tightly they hardly move
- the particles have a fixed pattern



ice



rock



wood



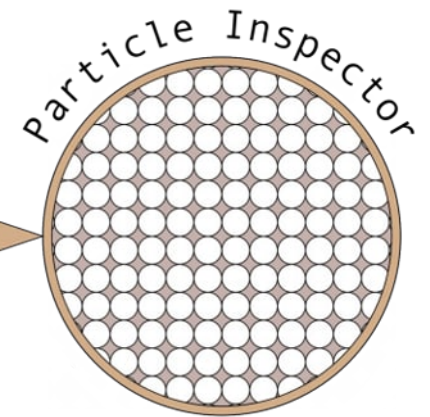
fabric



paper



Each grain of sand is a solid.

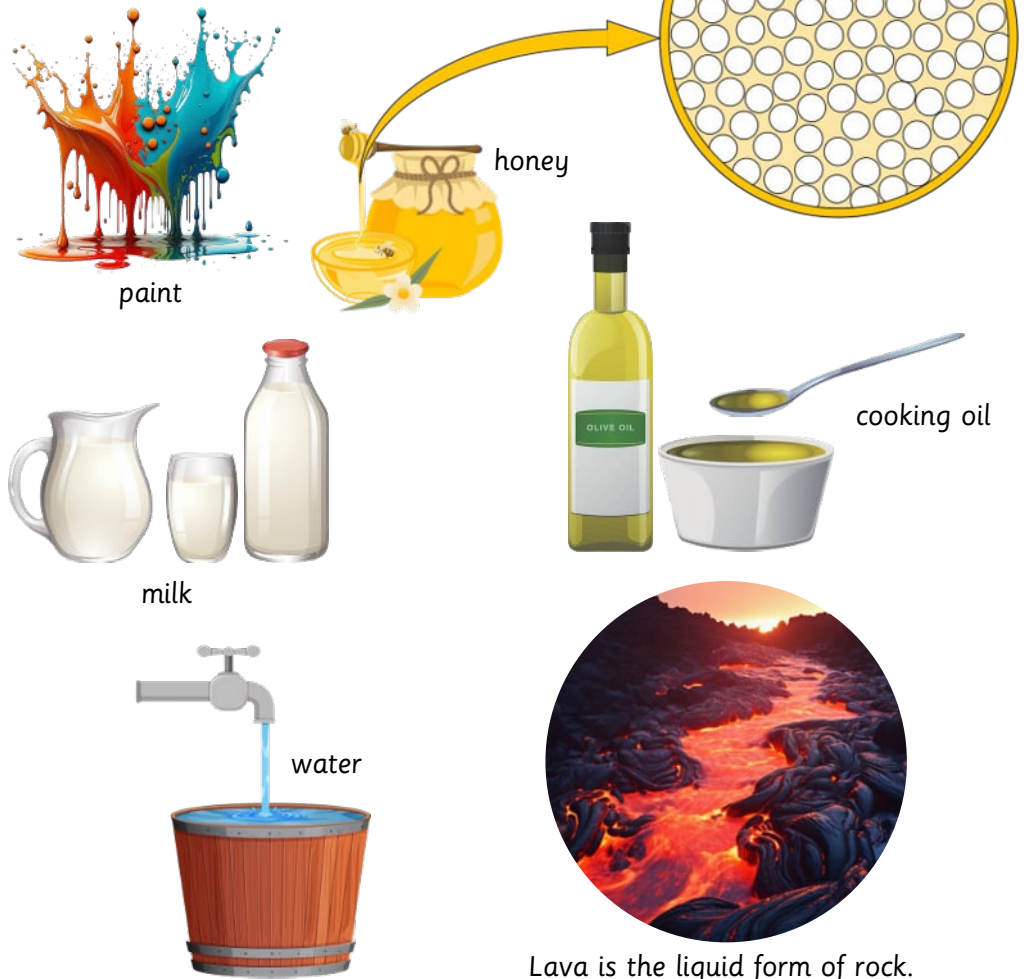


Liquids

Liquids flow and take the shape of the container they are in.

In liquids

- the particles are slightly apart
- the particles are always moving
- the particles have no pattern

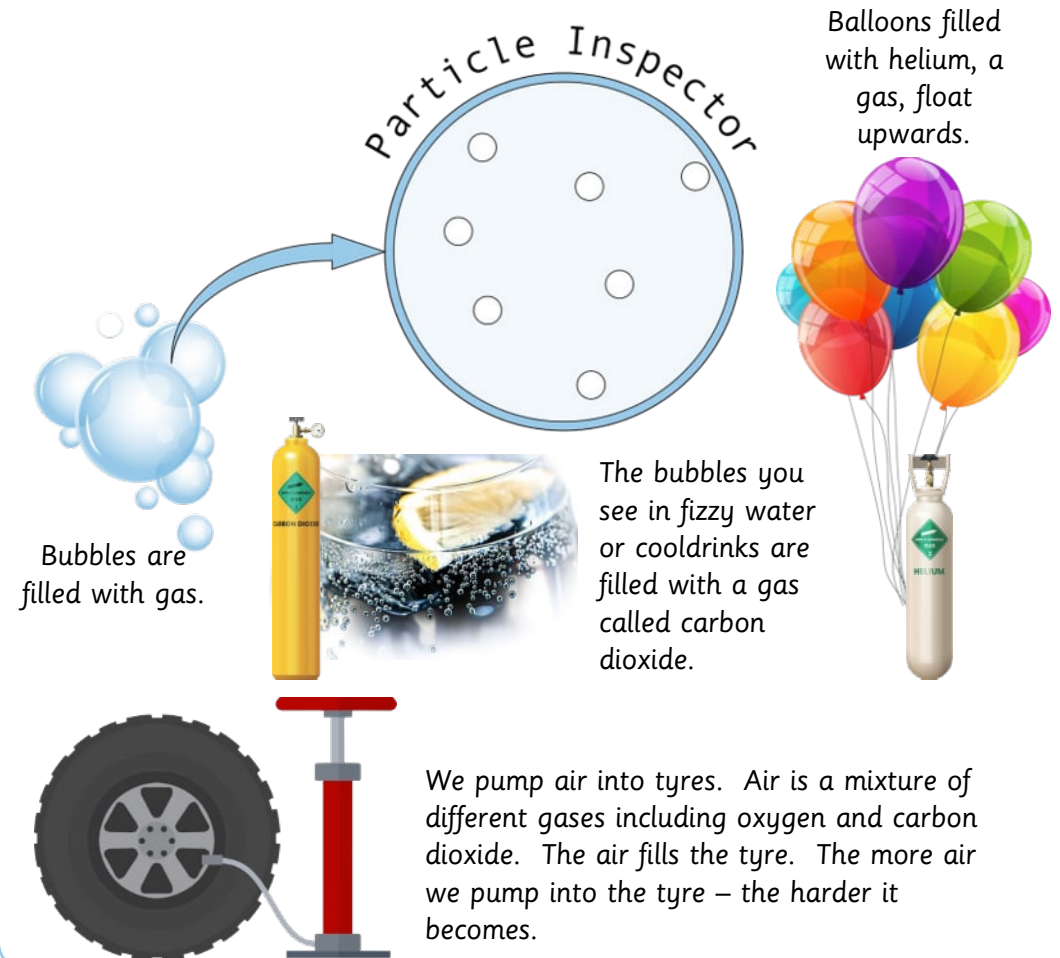


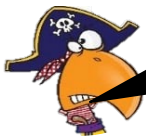
Gas

Most gases are invisible, this means you can not see them. They can fit into a small place like the air in a tire or spread out to fill a large space like a room.

In gases

- the particles are far apart from each other
- they are always moving very fast and bounce around





Can you sort these different materials?



Use the table to sort the materials into liquids, solids and gases. There is an extra row in each column to add your own example.



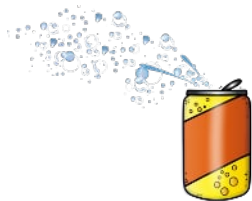
crude oil



salt



hot sauce



carbon dioxide
in fizzy drinks



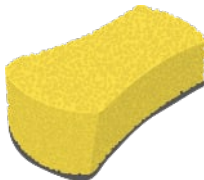
chocolate



air in bubbles



helium
filled balloons



sponge



water



metal coin



oxygen



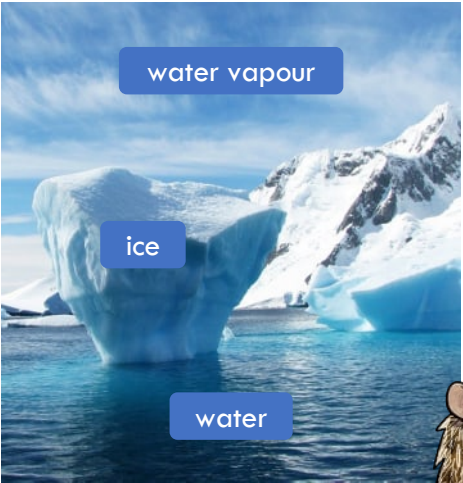
cough syrup



Just like this!

liquids	solids	gases
crude oil		

liquids	solids	gases



Did you know?
Water is a liquid. If you cool water down it becomes ice, a solid. If you heat water up it becomes water vapour, a gas.

Ask for help if you need to do so.



Can you list the particles properties of solids, liquid and gases?



Complete the three states of matter study cards by writing the particle properties listed in the statement bank on the correct study card.



Just like this!

Statement bank

- ✓ The particles have no pattern.
- The particles move very fast and bounce around.
- The particles are far apart from each other.
- The particles do not move.
- The particles have a fixed pattern.
- The particles are always moving.
- The particles are packed very closely together.
- The particles are slightly apart.

Solids

Solids are materials that keep their shape.

Liquids

Liquids change their shape and can flow.

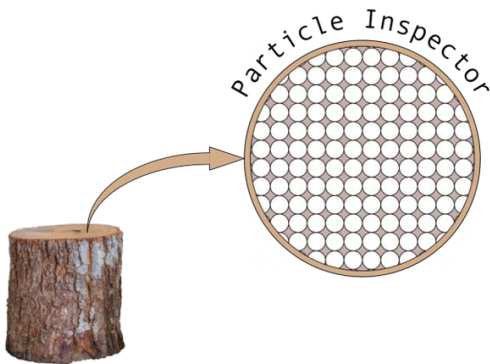
• The particles have no pattern.

Gases

Gases are invisible. They fill a space.

Statement bank

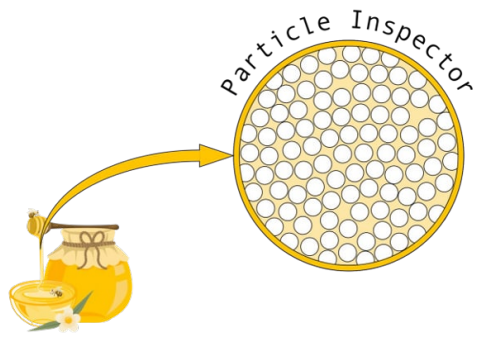
- The particles have no pattern.
- The particles move very fast and bounce around.
- The particles are far apart from each other.
- The particles hardly move.
- The particles have a fixed pattern.
- The particles are always moving.
- The particles are packed very closely together.
- The particles are slightly apart.



Solids

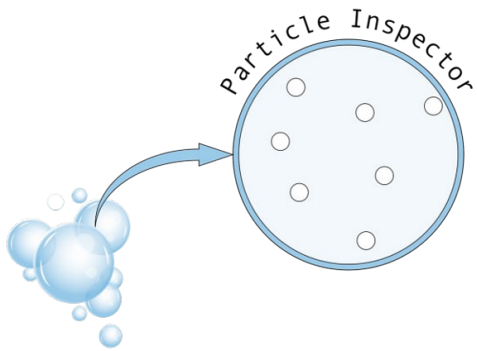
Solids are materials that keep their shape.





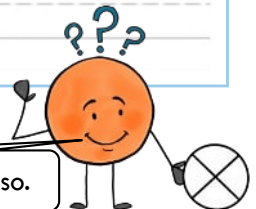
Liquids

Liquids change their shape and can flow.



Gases

Gases are invisible. They fill a space.





We live on planet Earth.
Everything around and beyond Earth is called **space**.

Earth and space are part of the **Universe**.
The Universe is everything that exists. Earth, space, and all of time, matter and energy makes up the Universe.

Earth in space

From Earth some of the space objects we can see are:

- stars
- the Moon
- planets
- meteors
- comets
- satellites

Some stars have planets and other space objects moving around or orbiting them.
These types of stars are called suns.



Glossary words

comet

An icy objects that orbits the Sun.
Some comets have tails of gas and dust.

moon

A smaller space object that moves around or orbits a planet.
Earth has one moon, which we call the Moon!

meteor

A space objects that burns as it nears the Earth.
Meteors can be seen as streaks of light moving across the sky. We also call meteors falling stars.

planet

A large space object that moves around or orbits a star. Earth is a planet.

satellite

A man-made object that orbits Earth, used for communication, weather monitoring, and other purposes.

space

Everything around and beyond Earth is called space.

star

A balls of burning gas that can be seen as a point of light in the night sky.
The Sun is the closest star to Earth.

the Universe

Everything that exists, including Earth, space, and all of time, matter, and energy is called the Universe.

The Solar System

A solar system is a set of planets and other space objects that move around or orbit a sun.



In our solar system, Earth and seven other planets move around or orbit the Sun.



Glossary words

solar

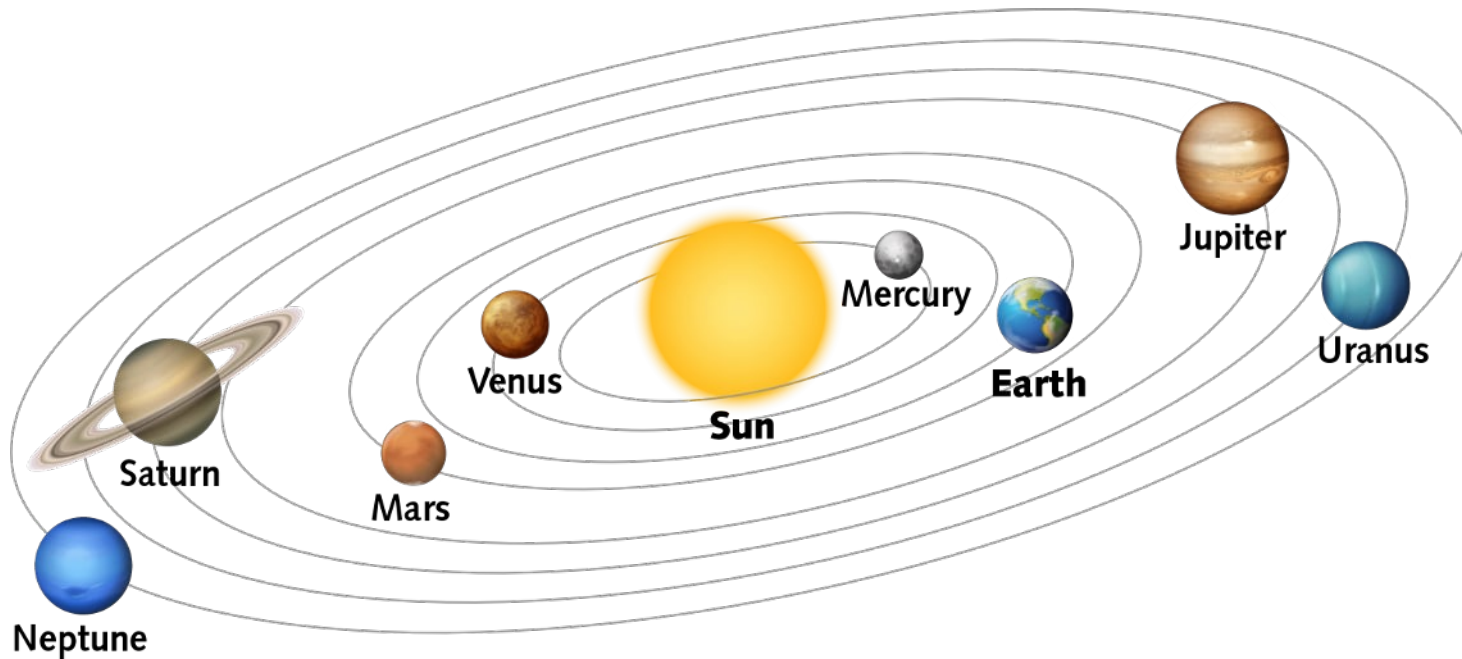
Sol is the Latin word for sun.

Solar is used to describe things that work because of the sun.

system

A set of parts or things that work together.

Our Solar System



Did you know?

Each planet in our solar system follows an oval path around the Sun.

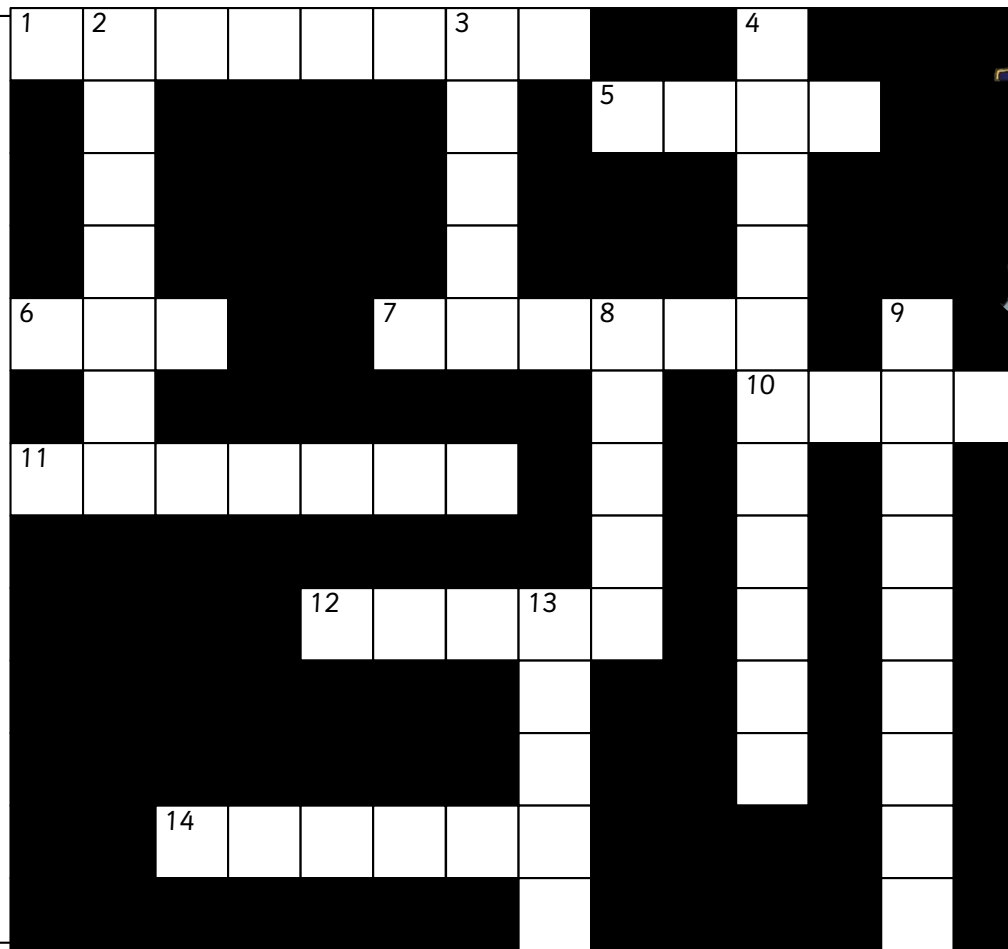
The grey lines in the diagram show how each planet moves around or orbits the sun.



Crossword Puzzle

Word bank

- comet
- Earth
- eight
- Mercury
- meteor
- moon
- Neptune
- planet
- satellite
- SolarSystem
- space
- star
- sun
- Universe



Can you use the clues to finish the crossword?



Think carefully before you write!

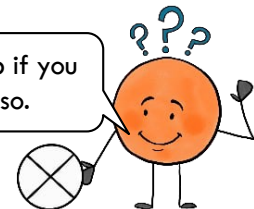


Just like this!

Read the clue.

Find the answer in the word bank.

Write the answer on crossword grid.



Ask for help if you need to do so.

Clues: Across

1. Everything that exists, including Earth, space, time, matter, and energy.
5. A smaller space object that orbits a planet.
6. A star that has planets and other space objects orbiting it.
7. A space objects that burns as it nears the Earth.
10. A balls of burning gas that can be seen as a point of light in the night sky.
11. The planet closest to the Sun.
12. An icy objects that orbits the Sun.
14. A large space object that orbits a star.

Clues: Down

2. The planet furthest from the Sun.
3. Everything around and beyond Earth.
4. A set of planets and other space objects that orbit a sun.
8. The number of planets in our Solar System.
9. A man-made object that orbits Earth.
13. The planet we live on.

Sun



Mercury



1st

Venus



2nd

Earth



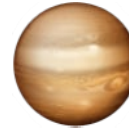
3rd

Mars



4th

Jupiter



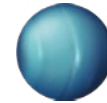
5th

Saturn



6th

Uranus



7th

Neptune



8th

Mercury

- Mercury is the closest planet to the sun.
- It takes 88 days for Mercury to orbit the Sun.
- Mercury is the smallest planet in our solar system.

Jupiter

- Jupiter is the fifth planet from the sun.
- It takes 12 years for Jupiter to orbit the Sun.
- Jupiter is the largest planet in our solar system.

Venus

- Venus is the second planet from the sun.
- It takes 224 days for Venus to orbit the Sun.
- Venus is the hottest planet in our solar system.

Saturn

- Saturn is the sixth planet from the sun.
- It takes 29 years for Saturn to orbit the Sun.
- Saturn has rings made mainly of ice which surround the planet.

Earth

- Earth is the third planet from the sun.
- It takes 365¼ days for Earth to orbit the Sun.
- We live on planet Earth.

Uranus

- Uranus is the seventh planet from the sun.
- It takes 84 years for Uranus to orbit the Sun.
- While all the other planets spin like tops, Uranus looks like it has tipped over and spins on its side.

Mars

- Mars is the fourth planet from the sun.
- It takes 687 days for Mars to orbit the Sun.
- Mars is mainly covered in rock and dust.

Neptune

- Neptune is the furthest planet from the sun.
- It takes 165 years for Neptune to orbit the Sun.
- Neptune is the coldest planet in our solar system.



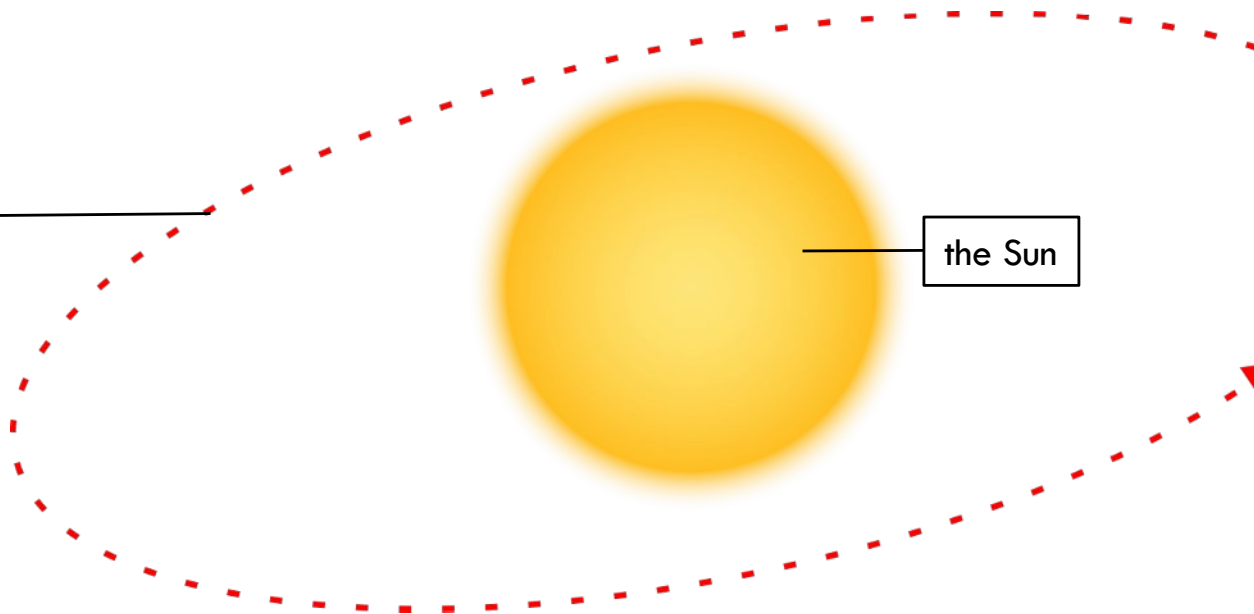
Can you trace the path of the Earth's orbit around the sun?

How the Earth Moves



The Sun is the centre of our Solar System. The eight planets orbit the Sun. This means that each planet follows a fixed oval path around the Sun. The diagram shows the Earth's path around the Sun.

the path of the Earth's orbit around the Sun.



the Sun

the Earth

anti-clockwise

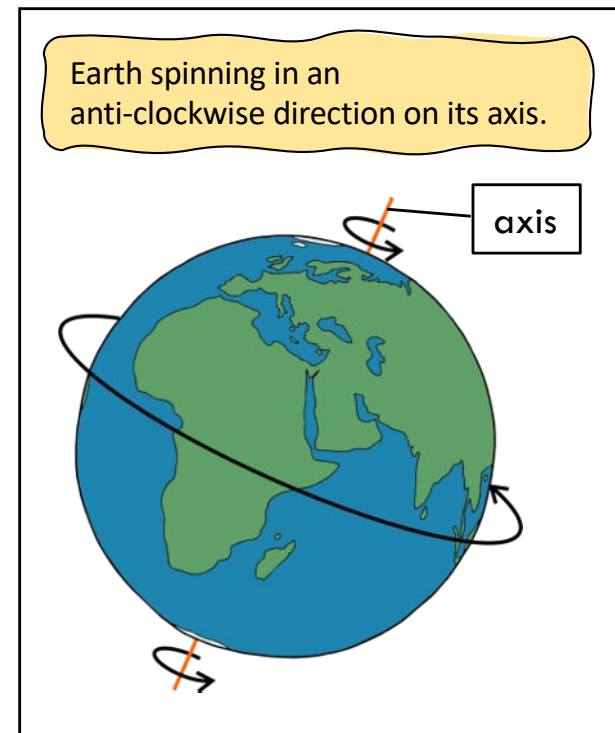
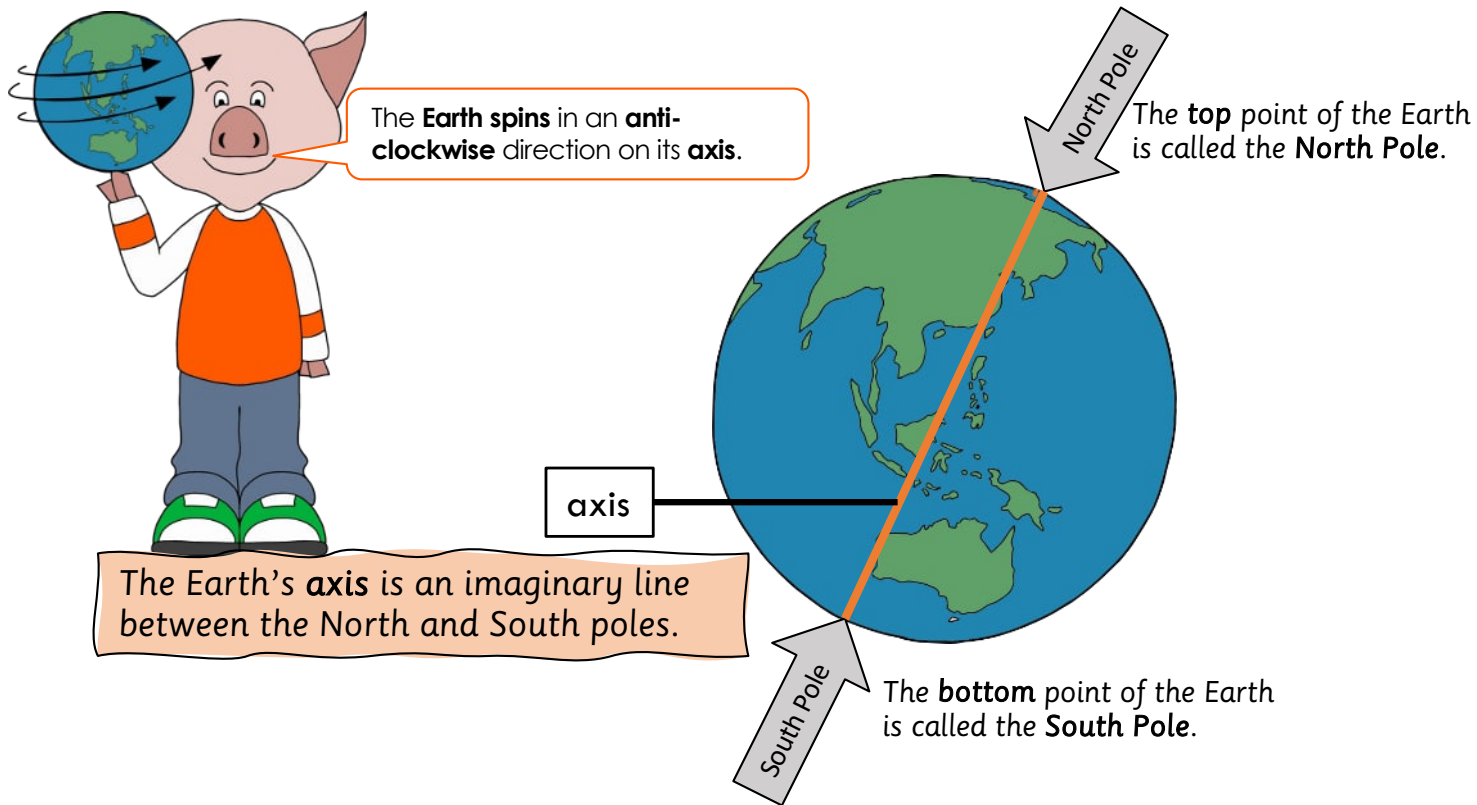


clockwise

The Earth moves in an anti-clockwise direction around the Sun.

It takes one year for the Earth to travel around the Sun.

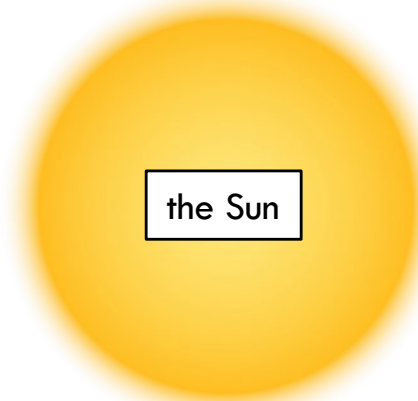
The movement of the Earth and the pull of the Sun's gravity stop the Earth from flying off into space.



The Earth takes one day (24 hours) to make a complete rotation or spin on its axis.

Day and Night

The Earth spins around once every 24 hours.
This spinning causes day and night.
The side of the Earth facing the Sun has daytime
The side facing away from the Sun is dark (night-time).



The Moon

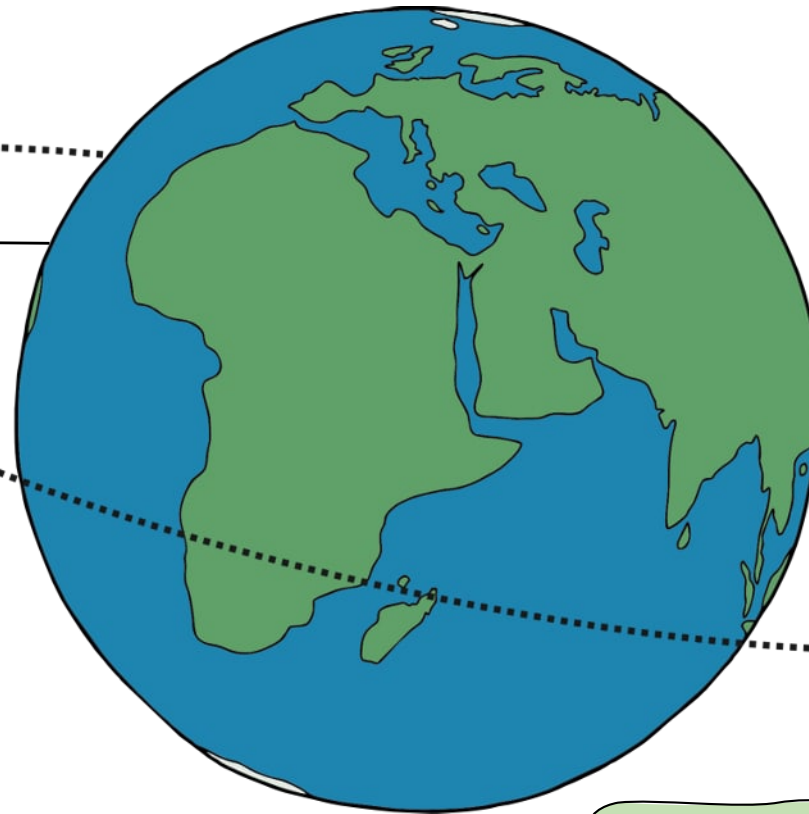


The Earth has one moon, called the Moon.
A moon is a smaller space object that orbits a planet.
The Moon is mainly made of rock.

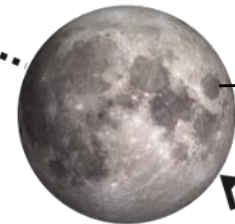
The Moon moves in an anti-clockwise direction around the Earth.

the path of the Moon's orbit around the Earth.

the Earth



the Moon



It takes about 27 days for the Moon to travel around the Earth.

The movement of the Moon and the pull of the Earth's gravity stop the Moon from flying off into space.

The Moon reflects the Sun's light.



At night, when we can see the Moon. The moon reflects the Sun's light.



At night, the Moon looks like it's moving slowly across the sky.



After Sunset

The Moon rises in the East.



Midnight

The Moon is high in the night sky.



Before Sunrise

The Moon sets in the West.

This happens because the Earth is spinning on its axis faster than the Moon is moving in its orbit around Earth.

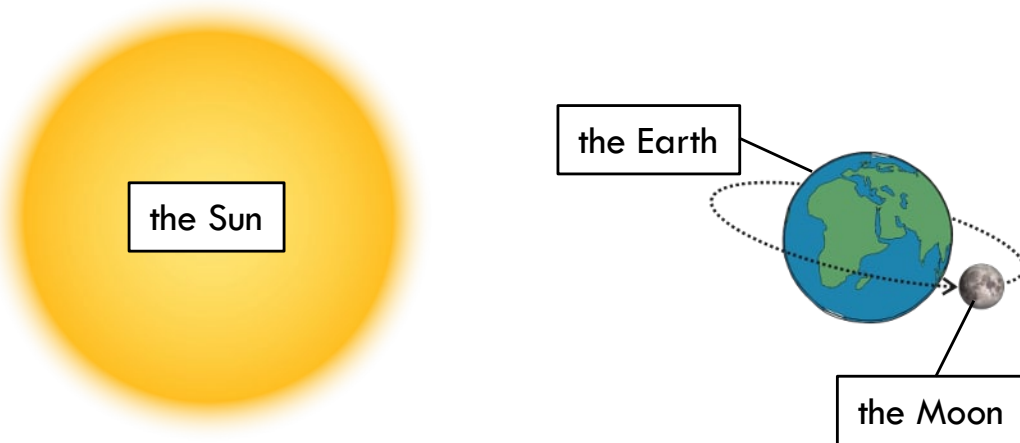
Remember, the Earth takes 24 hours to complete one rotation on its axis. The Moon takes about 27 days to complete its orbit around Earth.

This makes it look like the Moon is moving from East to West across the night sky.

Phases of the Moon

As the Moon orbits Earth, the amount of the Moon that is lit by the Sun changes.
We call these the phases of the Moon.

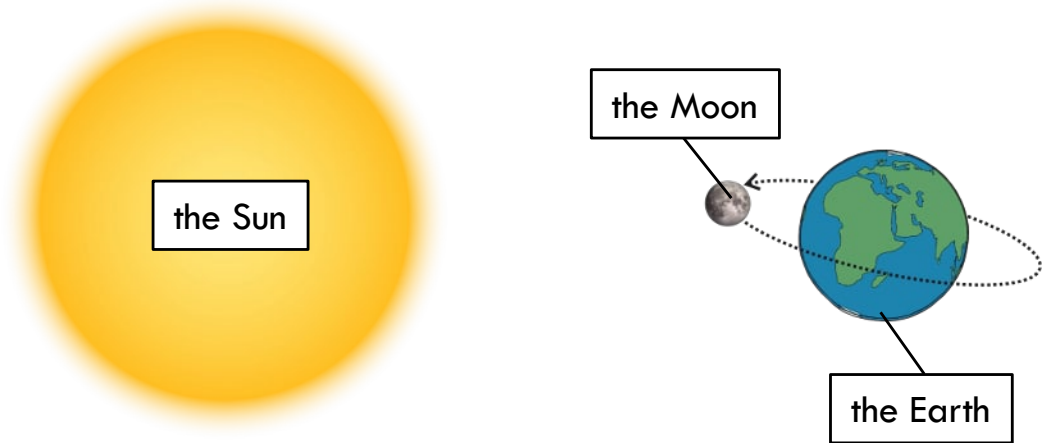
The old moon phase



The diagram shows that the Moon has moved away from the Sun. The Earth is between the Sun and the Moon. The Earth is blocking most of the Sun's light. Only a small section of the moon can reflect the Sun's light. This small section of the Moon is all that can be seen from Earth.



The full moon phase



The diagram shows that the Moon is now closest to the Sun. There is nothing blocking the Sun's light. The whole face of the Moon reflects the Sun's light. The whole side of the Moon facing Earth can be seen.





Can you keep a moon diary?



Every night for one month record what you can see of the Moon.

































Just like this!

Month:	Jan
Day:	1



MOON DIARY

Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:	
Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:	
Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:	
Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:	
Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:		Month:	Day:	

Sunset Safari





Read the question.



Look carefully at the illustration of the Sunset Safari.



Find the clues.

Record your answer.



Write



Tick



What can you remember?

1 What is the total number of animals in the illustration?

The animals in the illustration are examples of .

2 Can you find a rock?

A rock is an example of a .

3 Can you find the elephant?

Elephants eat .

They are .

An elephants is .

Elephants .

Tick the features of an elephant.

Breathing: lungs ☐ gills ☐

Body temperature: warm-blooded ☐ cold-blooded ☐

Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

4

Can you find the frog?

☐ Yes ☐ No
Frogs eat .They are .A frog is .

5

Can you find the fish?

☐ Yes ☐ No
Most fish .Fish live .Water is an example of a .

6

Can you find the snake?

☐ Yes ☐ No
Most snakes .

All snakes are carnivores.

Snakes eat .A snake is .

Tick the features of an adult frog.

Breathing: lungs ☐ gills ☐Body temperature: warm-blooded ☐ cold-blooded ☐Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

Tick the features of a fish.

Breathing: lungs ☐ gills ☐Body temperature: warm-blooded ☐ cold-blooded ☐Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

Tick the features of an adult frog.

Breathing: lungs ☐ gills ☐Body temperature: warm-blooded ☐ cold-blooded ☐Skin covering: none ☐ hair or fur ☐ feathers ☐ scales ☐

7

Can you find the owl?

Yes ☐No ☐

Owls

☐ give birth to live young☐ lay eggs

.

Owls' breath air. Air is a

☐ solid☐ liquid☐ gas

.

An owl is

☐ a mammal☐ a bird☐ a fish☐ a reptile☐ an amphibian

.

Tick the features of an adult frog.

Breathing:

lungs ☐gills ☐

Body temperature:

warm-blooded ☐cold-blooded ☐

Skin covering:

none ☐hair or fur ☐feathers ☐scales ☐

8



First draw the rising moon.



Then colour the illustration.



Use the key to classify the vertebrates.



Look at the animal card. Match the animal to the key. Colour the circle.



What can you remember?

Key

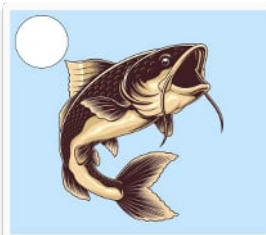
- amphibians
- birds
- fish
- mammals
- reptiles



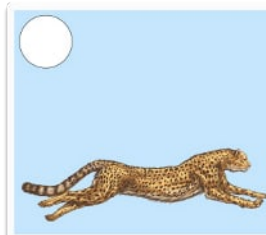
buck



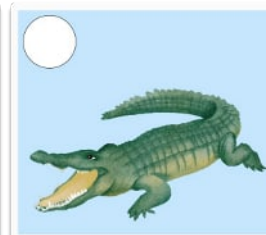
buffalo



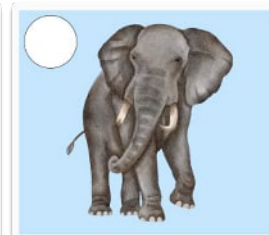
catfish



cheetah



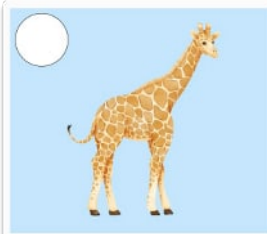
crocodile



elephant



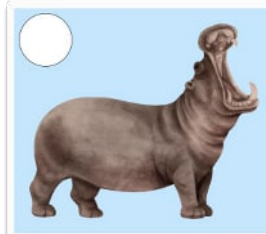
frog



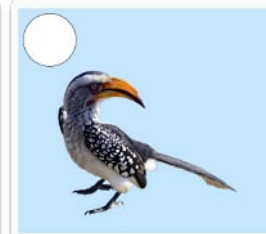
giraffe



heron



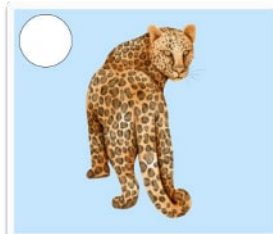
hippopotamus



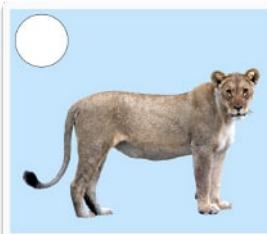
hornbill



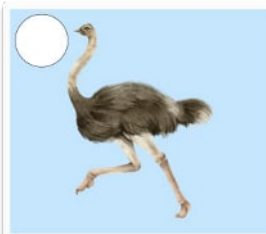
kestrel



leopard



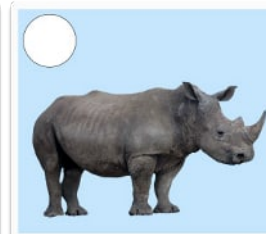
lion



ostrich



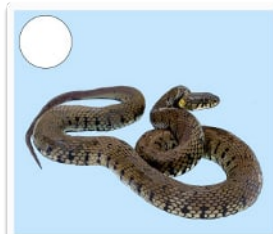
owl



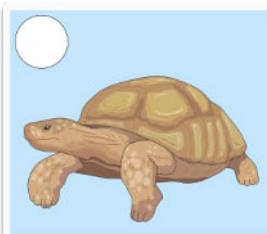
rhinoceros



salamander



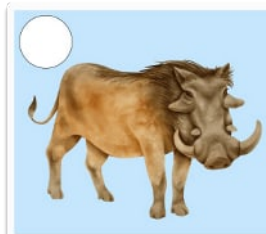
snake



terrapin



toad



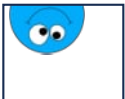
warthog



wild dog



zebra

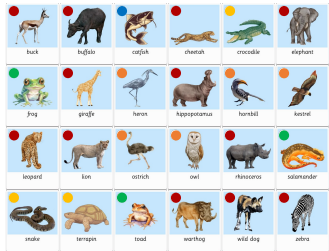




What can you remember?

Finish the bar graph.

Look at the animal cards.

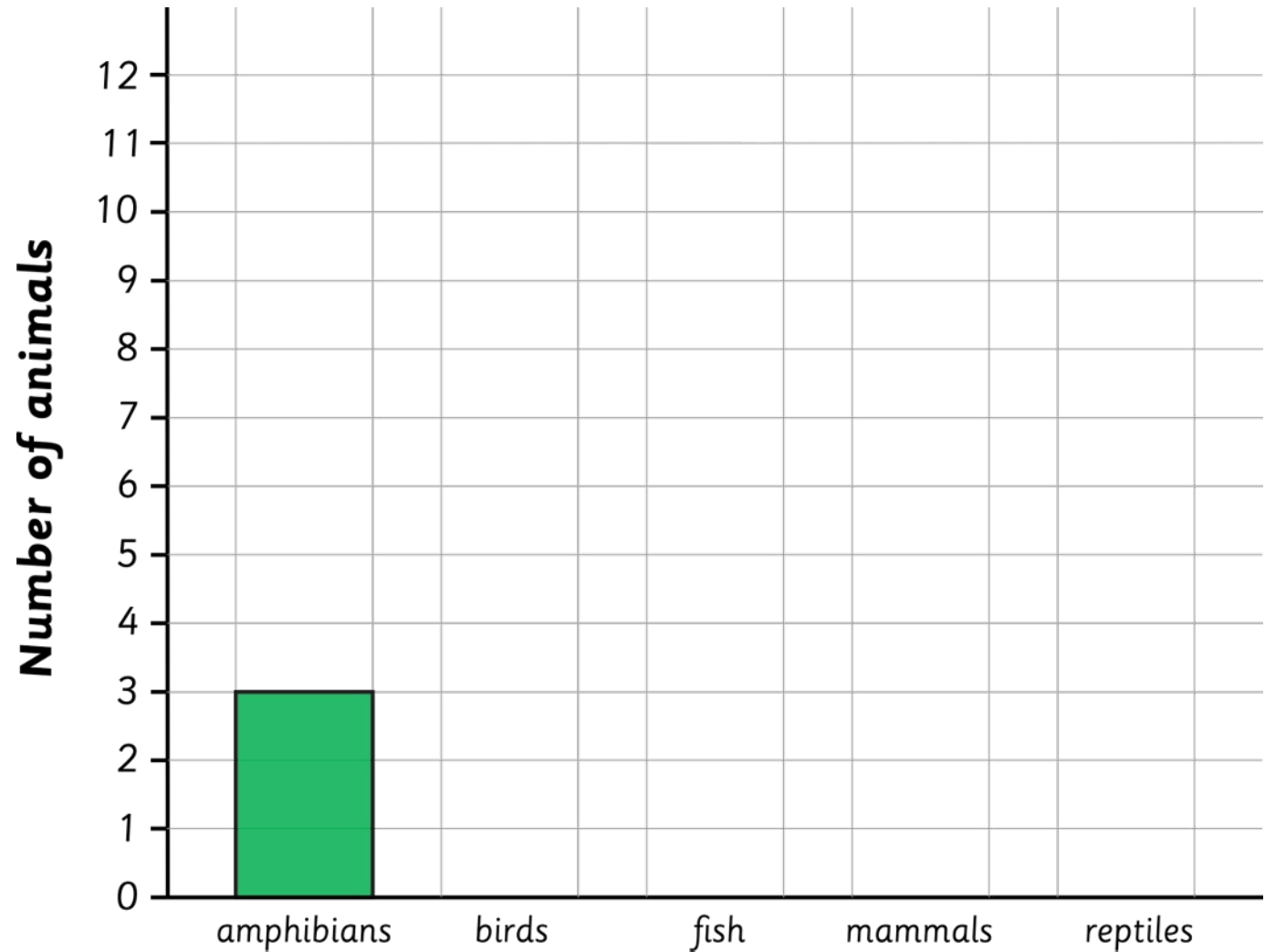


Count the number of amphibians, birds, fish, mammals and reptiles.

Draw a bar above each group showing how many different animals there are in each group. The first group has been done for you.

Write the title and label.

title



label





Tick the properties of the material.



Then write a description about the material's properties.

What can you remember?



The first one has been done as an example for you.



Olive oil

The material is a:

☒ liquid

☐ solid

☐ gas

The material:

☐ keeps its shape

☐ fills the whole space of its container

☒ takes the shape of its container

The particles of the material:

☐ are always moving very fast and bounce around

☒ are slightly apart and are always moving

☐ are packed closely together in a fixed pattern

Olive oil is a liquid. It takes the shape of its container.

The particles of olive oil are slightly apart and always moving.



Plastic boots

The material is a:

☐ liquid

☐ solid

☐ gas

The material:

☐ keeps its shape

☐ fills the whole space of its container

☐ takes the shape of its container

The particles of the material:

☐ are always moving very fast and bounce around

☐ are slightly apart and are always moving

☐ are packed closely together in a fixed pattern



Air

The material is a:

- ☐ liquid
- ☐ solid
- ☐ gas

The material:

- ☐ keeps its shape
- ☐ fills the whole space of its container
- ☐ takes the shape of its container

The particles of the material:

- ☐ are always moving very fast and bounce around
- ☐ are slightly apart and are always moving
- ☐ are packed closely together in a fixed pattern



Milk

The material is a:

- ☐ liquid
- ☐ solid
- ☐ gas

The material:

- ☐ keeps its shape
- ☐ fills the whole space of its container
- ☐ takes the shape of its container

The particles of the material:

- ☐ are always moving very fast and bounce around
- ☐ are slightly apart and are always moving
- ☐ are packed closely together in a fixed pattern



Salt

The material is a:

- ☐ liquid
- ☐ solid
- ☐ gas

The material:

- ☐ keeps its shape
- ☐ fills the whole space of its container
- ☐ takes the shape of its container

The particles of the material:

- ☐ are always moving very fast and bounce around
- ☐ are slightly apart and are always moving
- ☐ are packed closely together in a fixed pattern



Use the words to write  a statement.

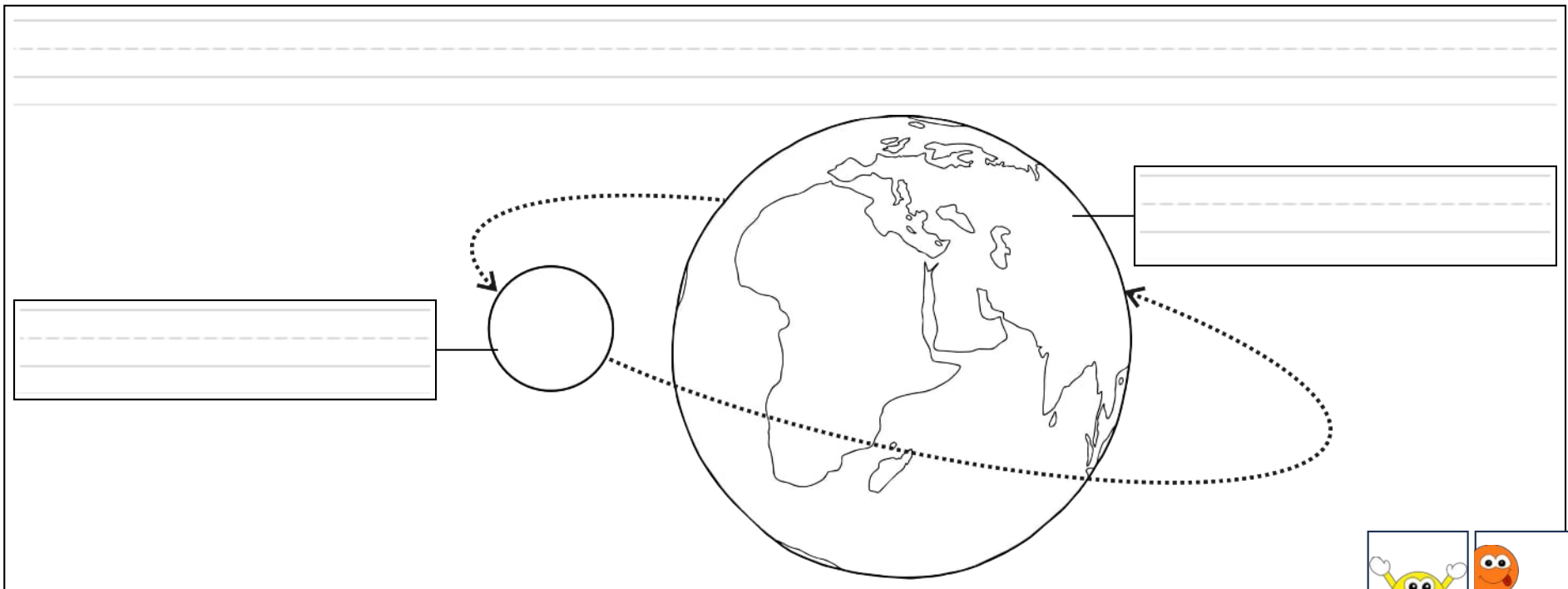
one Earth has The moon.

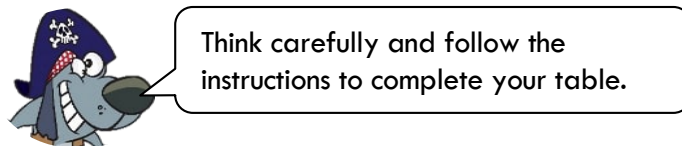
What can you remember?



anti-clockwise in around moves an the Earth. The Moon direction

Finish the diagram.  Write a heading and label the Earth and the Moon.  Use a red pen to show the Moon's orbit.





Just like this! Tick ✓ one column per row.

Learner Success Criteria	
1	I can write my name.
2	I can control my pencil.


Key	I got this!	I'm getting this! [with my teacher's help]	I can't do this yet!
-----	-------------	---	----------------------

Learner Success Criteria				
1	I can group or classify different animals according to what they eat. I know that herbivores eat plants, carnivores eat other animals and omnivores eat plants and animals.			
2	I can classify different animals into groups that have a backbone (vertebrates) and animals that do not have a backbone (invertebrates).			
3	I can name the main features of mammals, birds, fish, reptiles and amphibians.			
4	I can classify different animals into groups of mammals, birds, fish, reptiles and amphibians.			
5	I can name the different properties of solids, liquids and gases.			
6	I can classify different materials into groups of solids, liquids and gases.			
7	I can describe the movement of the Earth and Moon.			
8	I can describe the regular change in the position and appearance of the Moon.			

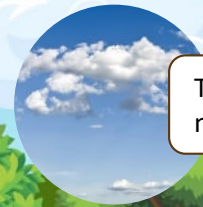
I still need my teacher to help me with number or numbers...

Write down the number of your favourite topic.


Living, once alive and never living.




All the physical surroundings on Earth are called the environment. The environment includes everything living and everything non-living. People, all the other animals, plants, and all other living things rely on the non-living parts of the environment to survive.



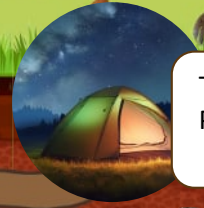
The air is made of non-living gases like oxygen, carbon dioxide, nitrogen and water vapour. These gases have never lived.




The animals are living.




A fire has never lived. It is non-living.



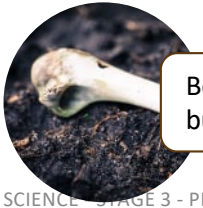
The tent is made of manufactured plastic fabric. Plastic has never lived. The tent is non-living.




Rocks have never been alive, they are non-living!




Soil is a mixture of dead plants and animals and bits of rock. The soil is non-living.



Bones were once part of living animals, but they are now dead and non-living.



The growing trees, grass, flowers and other plants are all living.



The wood is non-living. The wood is from a dead tree and was once alive.



Can you match the caption to the photograph?

Use all the captions in the caption bank.



Just like this!



Read



Write



Caption bank

A fire has never lived.

Buried bones were once part of living animals. They are now dead.

The growing trees, grass, flowers and other plants are living.

The air is made of never living gases.

Wood is from a dead tree. The tree was once alive.

Moving animals are living.



Ask for help if you need to do so.





Can you categorise or group the plants, animals, and objects?



Use the key to sort the cards into living, once alive and never alive categories or groups.

Key

● living ● once alive ● never alive



Just like this!

Look at the card.



Read the card caption



canvas and leather bag

Find the matching category on the key.

Key

● living ● once alive ● never alive



Colour in the circle.



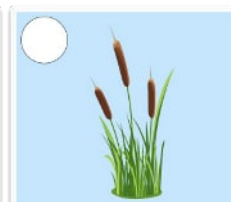
canvas and leather bag



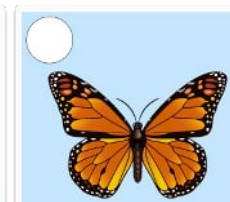
barbeque grill



bones



bulrushes



butterfly



plastic and metal camping chair



chameleon



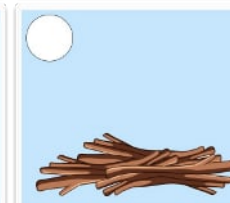
deer



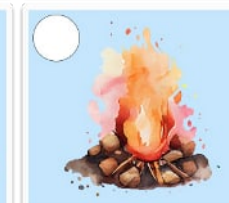
duck



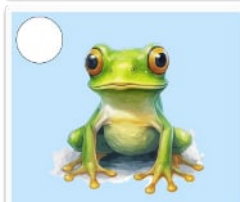
eagle



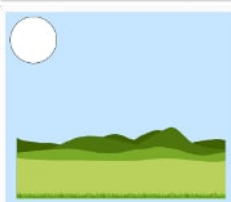
fire wood



fire



frog



grass



metal hammer



heron



mole



mouse



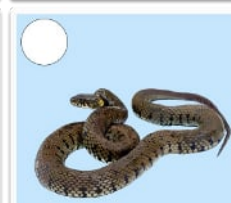
wood picnic table



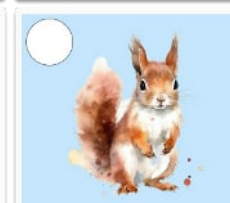
red ant



salamander



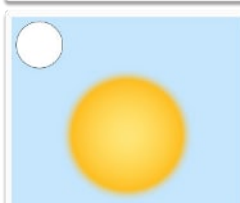
snake



squirrel



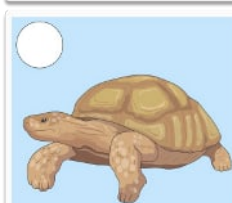
stones



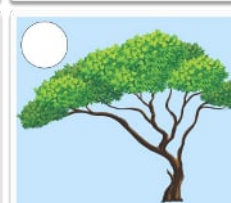
sun



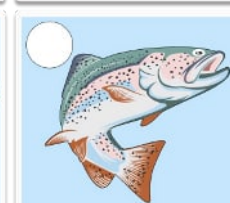
plastic tent



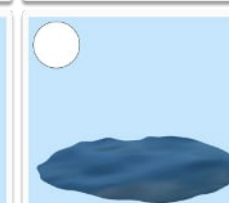
terrappin



tree



trout



water



Ask for help if you need to do so.



Living things must eat, move, grow, sense and make more of their own kind. They need air and make waste. These are the life processes.

Living Organisms



Can you label these living organisms?



Write the name of the plant or animal on the lines next to each image.



Just like this!
Look Write



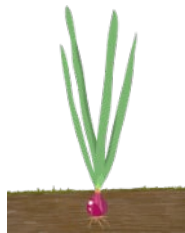
Word bank

- ☐ ant
- ☐ cactus
- ☐ frog
- ☐ jellyfish
- ☐ mushrooms
- ☐ snail
- ☐ sunflower

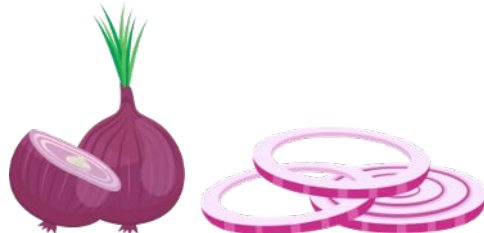


Did you know?

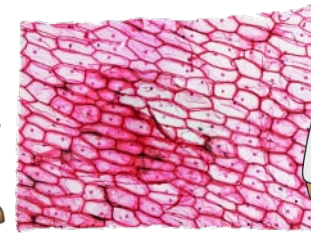
The scientific word for a living thing is a living organism. It can be a plant, an animal, or even a tiny creature that you can't see without a microscope.



Onion plant growing in the ground



Onion bulb sliced very thinly



Cells of the onion slice, as seen under a microscope



Living things are made up of cells, the building blocks of life. Cells are tiny and you need a microscope to see them.



Humans have 5 main senses.

Sensing

Living things have senses that help them find out what is happening around them.
Sensing is a life process.



Eagles flying high in the sky can see small animals like mice moving on the ground. Their amazing **sense of sight** makes them good hunters.



Bats use their **sense of hearing** to move in the dark.



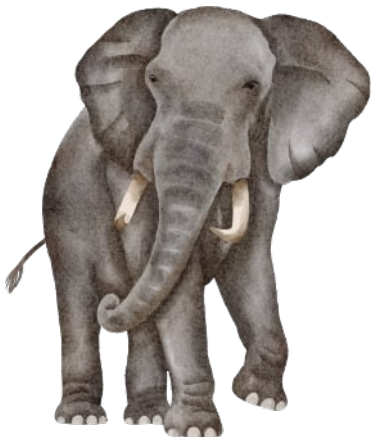
Dogs have a very strong **sense of smell**. They use their sense of smell to find food and can be trained to find lost people.



Butterflies have a **sense of taste** on their feet that let them taste plants when they land on them.



Plants can **sense temperature**. Tulips only bloom when it is warm.



Elephant's trunks have a strong **sense of touch**. They use their trunk to pick up tiny objects, feel their way around and give gentle trunk hugs.



Plants can **sense water**. They grow their roots towards water in the soil.



Plants can **sense light**. Water lilies use this sense to open their flowers during the day and close them at night.

Sensing helps living organisms explore and understand their surroundings.



Can you follow the instructions?



First read the notes on sensing.



Just like this!

Read



list

- One
- Two
- Three



write



Finish or complete the statement.

Sensing helps living organisms explore

- One
- Two
- Three



List five examples of living organisms that use senses.

•

•

•

•

•

- One
- Two
- Three



List five senses that animals can use to explore and understand their surroundings.

•

He

•

Si

•

Sm

•

Ta

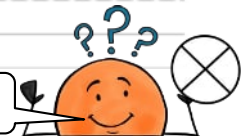
•

To

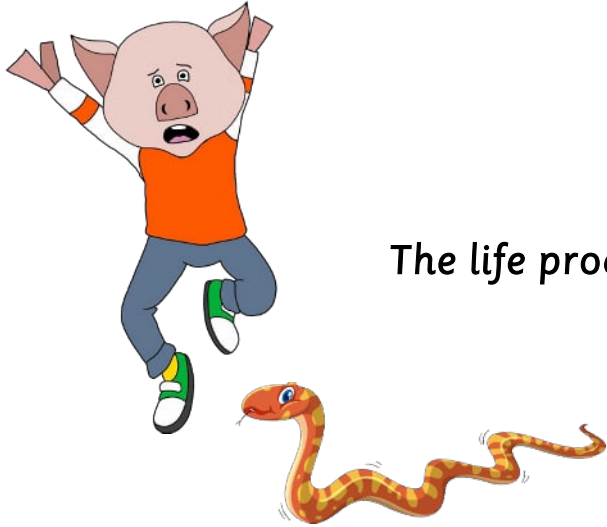


Describe a way plants can sense their surroundings.

Ask for help if you need to do so.



Lenny jumps out of the way of the snake to stay safe.



Snakes slither by pushing their bodies against the ground.



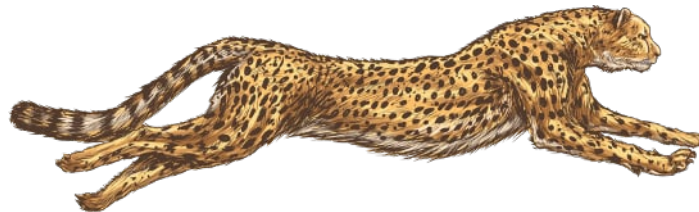
The Venus fly trap has special leaves, which snap shut around insects.

Movement

All living things or organisms can move.
The life process of movement is when living things change their position.



Butterflies move their wings up and down or flutter.
The wings push against the air.



The cheetah is the fastest land mammal.
It uses its great speed to hunt for food.



The roots of plants move towards water.

Many plants move towards light.

Some plants can move their stems and leaves towards the light while others, like young sunflowers, follow the sun with their flowers.



Movement helps living organisms stay alive by finding food and staying safe.



Can you follow the instructions?



First read the notes on Movement.



Just like this!

Read



list

- One
- Two
- Three

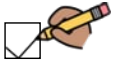


write



Finish or complete the statement.

Movement helps living organisms stay alive by



Tick the living organisms.



car moving forwards



leaves growing on a tree



frog jumping



boat moving on water



charging elephant



plane taking off



dead tree stump



mouse looking for food



falling leaves



moss growing on a tree stump



flying bird



log

- One
- Two



List two life processes.



- One
- Two
- Three



List four ways **you** can move.

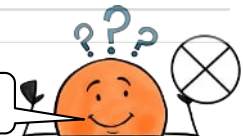
An example has been done for you to trace.



I can walk.



Ask for help if you need to do so.



Beatrix with her mom and dad.



Mammals give birth to live offspring or young.



Mammals look after their young till they can protect themselves and find their own food.

Reproduction

Reproduction is the way living things make more of their own kind or species.

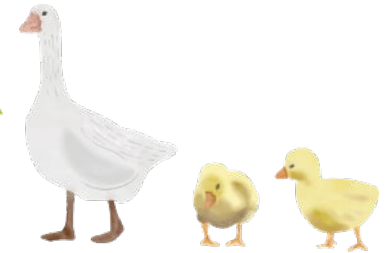


Many plants make seeds. The seeds grow into new plants.



Some plants grow new plants from a stem. The strawberry plant grows a little stem. The stem called a stolon can grow roots and make a new plant.

Other plants can grow new plant from a piece of leaf.



Many animals like amphibians, reptiles, fish, birds and insects lay eggs.

Reproduction is an important life process. It allows living organisms to continue their species.



Can you follow the instructions?



First read the notes on reproduction.



Just like this!

Read



list

- One
- Two
- Three



write



Finish or complete the statement.

Reproduction allows living organisms to

- One
- Two
- Three



List three examples of animals that give birth to live offspring .

• Humans.

•

•

- One
- Two
- Three



List three examples of animal groups that lay eggs.

• Insects.

•

•

- One
- Two
- Three



List three ways plants can reproduce.

• New plants can grow from seeds.

•

•

- One
- Two
- Three



List three life processes

• Sensing.

•

•

Ask for help if you need to do so.





Can you match the sentences to the correct heading or illustration?



Next to the headings and illustrations write the matching sentences from the sentence bank.



Just like this!

Sentence bank
Butterfly wings push against the air. The way organisms make more of their own kind. The roots of plants move towards water.
Many animals lay eggs which hatch. When living organisms change their position. Mammals give birth to live young.
Snakes slither by pushing their bodies against the ground. Plants make seed which can grow into new adult plants.

Movement When living organisms



Sentence bank

Butterfly wings push against the air.

The way organisms make more of their own kind.

The roots of plants move towards water.

Many animals lay eggs which hatch.

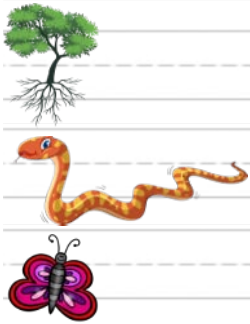
When living organisms change their position.

Mammals give birth to live young.

Snakes slither by pushing their bodies against the ground.

Plants make seed which can grow into new adult plants.

Movement



Reproduction



Nutrition

Kate must eat her food and drink lots of water so she can stay healthy and grow.

All living things need food and water (nutrition) to stay alive.



All animals need water to survive.
Water keeps our bodies working!

Like plants, animals get their energy from the food they eat. Animals cannot make their own food like plants so they must find their food.



Different animals feed on (eat) different foods to get energy and nutrients.

Herbivores get the food and nutrients they need from only eating plants.



Animals that eat meat and plants are called omnivores.
Humans are omnivores.



Carnivores feed on other animals. Carnivores only eat meat!



Plants use their roots to take in nutrients and water.

The nutrients are dissolved in the water and help keep the plant healthy.



Plants make their own food for energy so they can grow and flower.

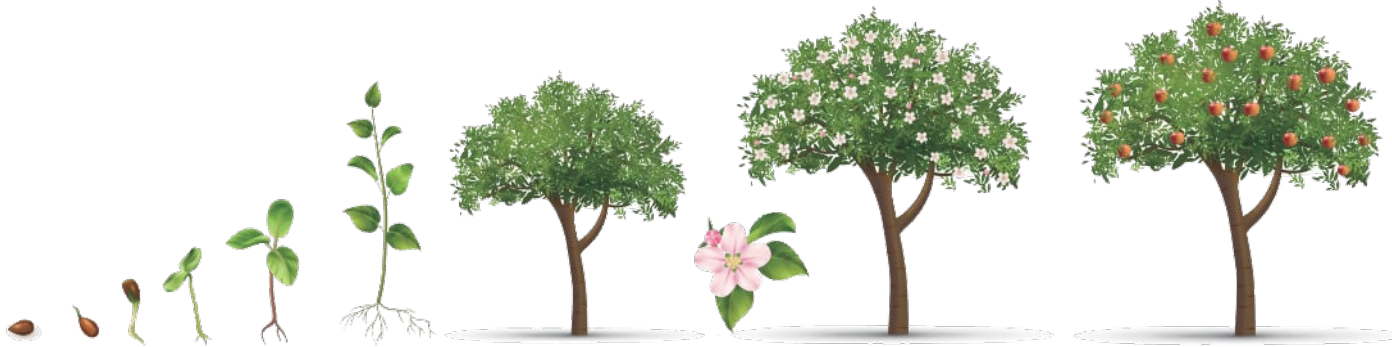
The green leaves and stems of plants use sunlight, water, carbon dioxide and nutrients from the soil to make food, which is used for energy.

This process is called photosynthesis.

**Nutrition is an essential life process that all living organisms need to grow, stay healthy and have energy.
Animals must find food, but plants make their own food.**

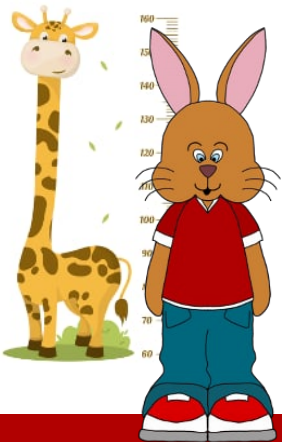
Growth

All living things grow.
Growth is when living things get bigger and change over time.



Plants like the apple trees grow from a tiny seed into a big tree. During winter, they lose their leaves which fall off the tree and die. During spring new leaves and flowers grow. The flowers will become apples that will fall off the trees when they are ripe.

Ronald measures and records his growth on a chart. He has grown 5cm in the last year.

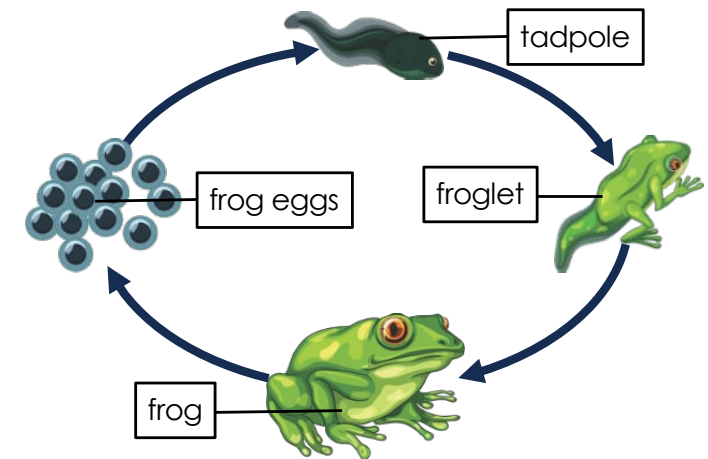


Humans grow and age from the time they are born until they die.



Lambs grow into sheep. A sheep can live between 10 to 12 years.

Sheep grow a thick wool coat to protect them from the cold during the winter months.



Frog eggs hatch into tadpoles. Tadpoles are like small fish that live in water. As they age, they grow feet, lose their tails and turn into frogs that live on land.

This change is called a metamorphosis. Insects like butterflies also go through a metamorphosis.

Growth is an important life process that allows living organisms to change and develop.



Can you match the sentences to the correct heading or illustration?



Next to the headings and illustrations write the matching sentences from the sentence bank.



Just like this!

Sentence bank

Plants make their own food.
A lamb grows into a sheep.

A tiny acorn grows into a giant oak tree.
Animals drink water and must find food.

Organisms get bigger and change over time.
Tadpoles become frogs.

Plants use their roots to take in water and nutrients.

Sentence bank

Plants make their own food.

A tiny acorn grows into a giant oak tree.

Organisms get bigger and change over time.

A lamb grows into a sheep.

Animals drink water and must find food.

Tadpoles become frogs.

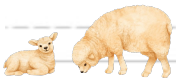
Living organisms need food and water to stay alive.

Plants use their roots to take in water and nutrients.

Nutrition



Growth

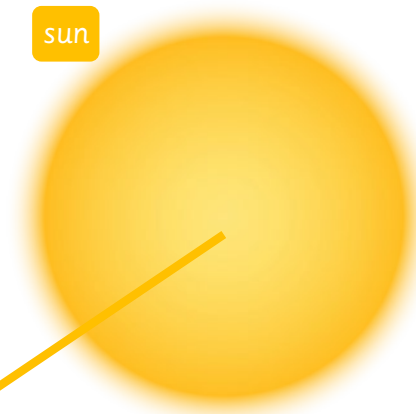




Light is a type of **energy**. It travels in straight lines or beams from a starting point called a **light source**. We say that the light source emits light.

Light

sun



The sun is a star. Stars are giant balls of glowing gas. **The sun is Earth's main light source.** The sun emits light.

light



Light travels in a straight line or beam.



When there is no light, it is dark.

Light Sources

Natural light

sun



stars



lightning



Burning materials

wood



gas



oil



coal



wax candle



Electric light

mains lighting



battery lighting





Can you name the light source?

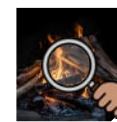


Write the name of the light source that can be seen in each photograph.



Just like this!

Look at the photograph. Find the light source. Write.

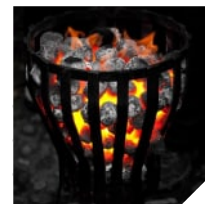
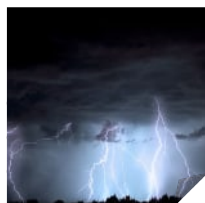


burning wood

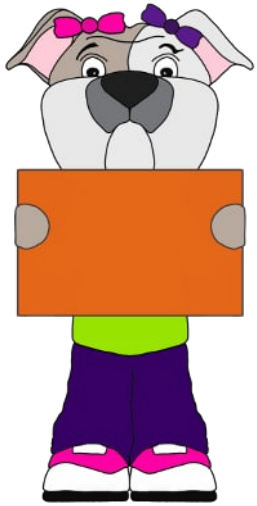


Word bank

- ☐ battery lighting
- ☐ burning coal
- ☐ burning gas
- ☐ burning oil
- ☐ burning wood
- ☐ lightning
- ☐ mains lighting
- ☐ stars
- ☐ sun
- ☐ wax candle

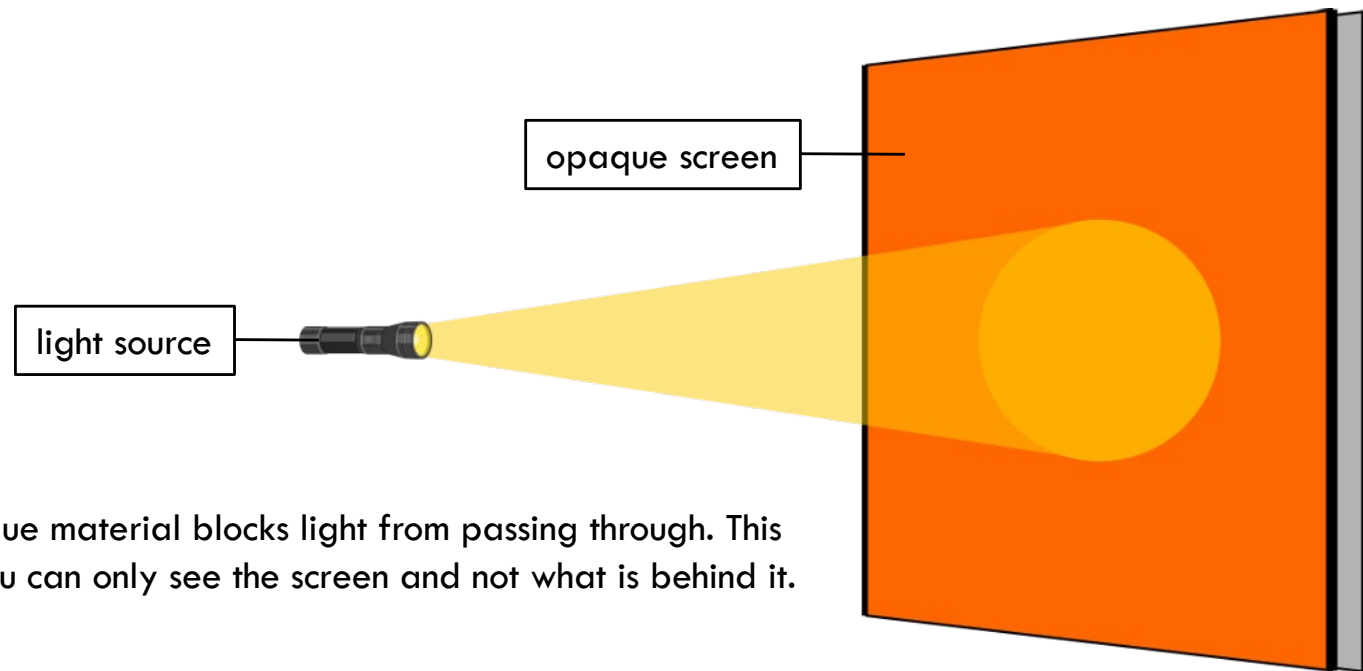


Ask for help if you need to do so.



Opaque Materials

Opaque materials block light. You cannot see through the material.



Examples of opaque materials.



tomato sauce



plastic bucket



stone wall



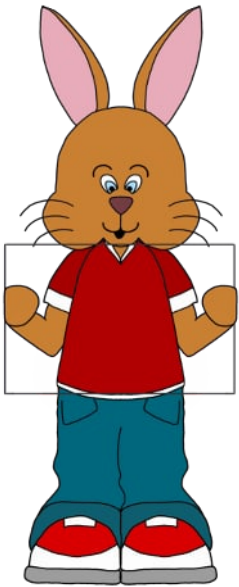
wooden chest



metal can

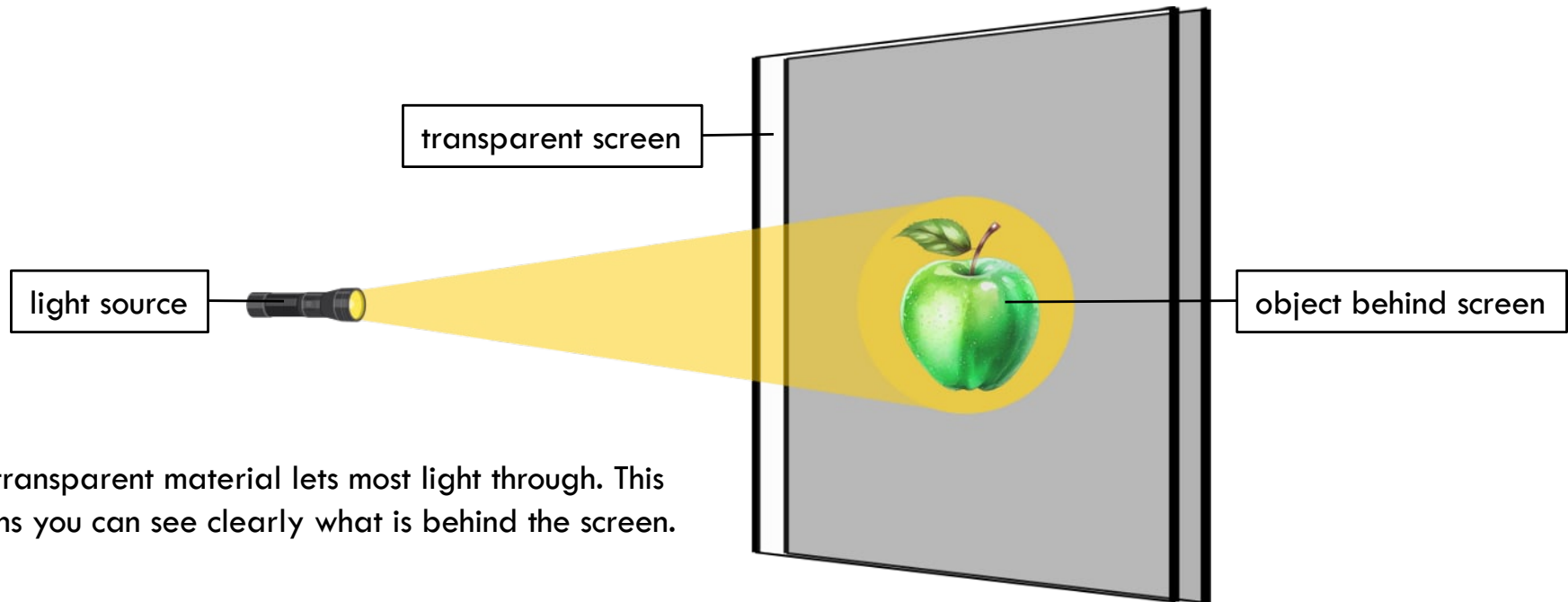


book



Transparent Materials

Transparent materials let most light through. You can see through the material.



The transparent material lets most light through. This means you can see clearly what is behind the screen.

Examples of transparent materials.



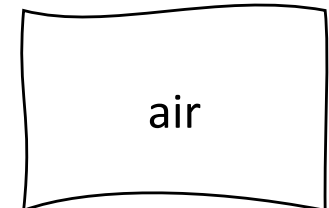
clear glass window



clear plastic wrap



clean water

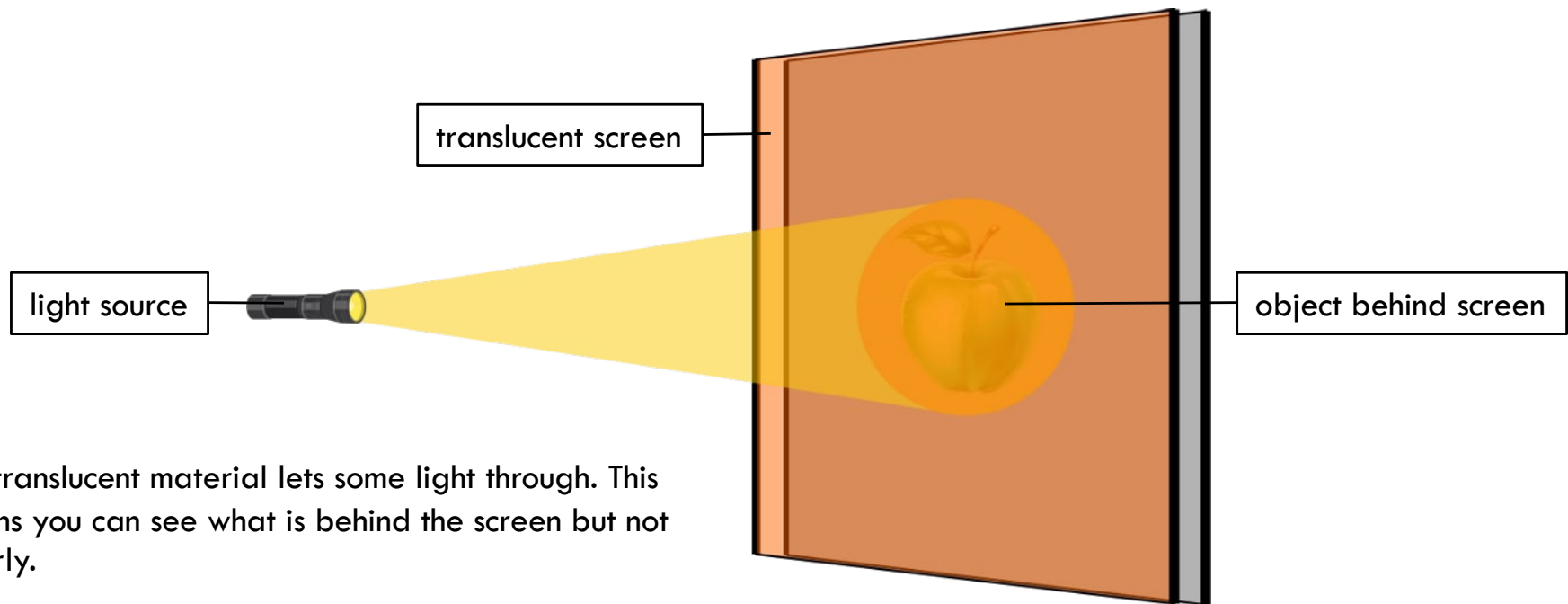


the gases in the air



Translucent Materials

Translucent materials let some light through. You can see through the material but not clearly.



The translucent material lets some light through. This means you can see what is behind the screen but not clearly.

Examples of translucent materials.



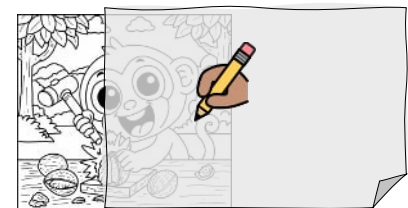
coloured glass bottles



plastic storage container



cooking oil



tracing paper



Can you group the objects?



Use the key to sort the objects into opaque, transparent, and translucent groups.

Key

transparent translucent opaque



Just like this!

Look at the object.



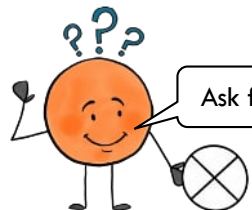
Use the key.

Key

transparent translucent opaque



Colour in the circle.



Ask for help if you need to do so.





Can you finish the study cards?



Use the sentences from the statement bank to describe opaque, translucent, and transparent materials.



Just like this!

Statement bank

- Materials that block all light.
- Materials that let some light through.
- Materials that let most light through.
- You can see through these materials.
- You cannot see clearly through these materials.
- You cannot see through these materials.



Opaque Materials

Examples of opaque materials:

- tomato sauce



Translucent Materials

Examples of translucent materials:

-



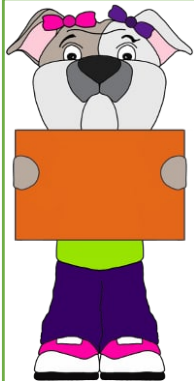
Transparent Materials

Examples of transparent materials:

-

Statement bank

- Materials that block all light.
- Materials that let some light through.
- Materials that let most light through.
- You can see through these materials.
- You cannot see clearly through these materials.
- You cannot see through these materials.



Opaque Materials

Examples of opaque materials:





Translucent Materials

Examples of translucent materials:



Transparent Materials

Examples of transparent materials:



Ask for help if you need to do so.



A **shadow** is made when light is **blocked** by an **opaque** object.



Opaque materials block light.

How shadows are formed.

—→ Arrows show direction of light

When light from a source is blocked by an opaque object, a shadow forms opposite the light source.

The torch is the light source

torch



light

Light travels in straight lines.
It cannot go around the pencil.

pencil



The opaque pencil blocks light.

shadow

lamp (light source)



shadow

The opaque cup blocks the light creating a shadow.



Shadows have no colour. They just make the area where they fall darker.





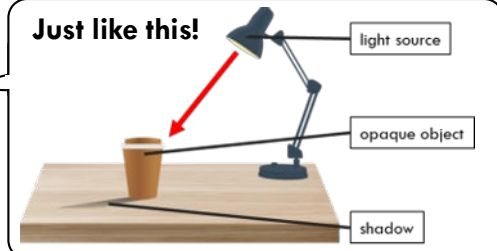
Can you show the light source, shadow, and opaque object?



Draw a line from the light source, opaque object and shadow to the matching label. Then draw a red arrow → to show the direction of the light.



Just like this!



light source

opaque object

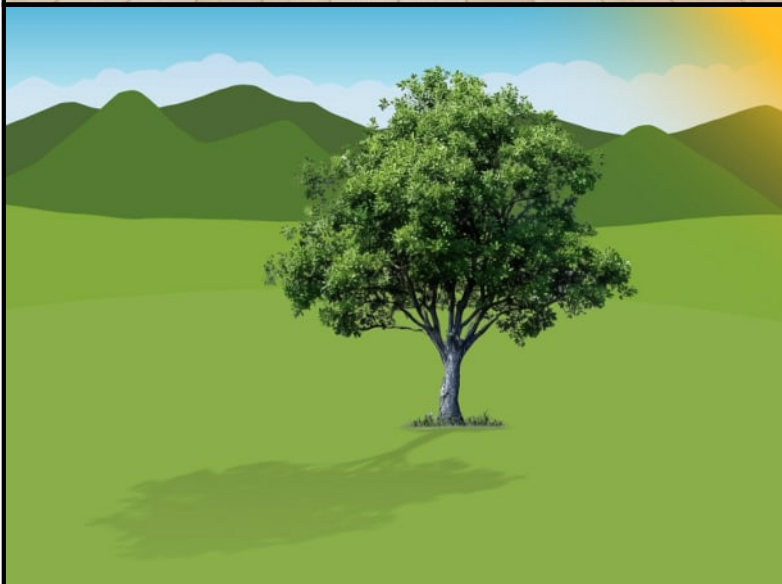
shadow



light source

opaque object

shadow



light source

opaque object

shadow



light source

opaque object

shadow

Fair test - Scientific enquiry



Glossary word

enquiry NOUN

An enquiry is a question you ask when you want information.

Scientists learn by asking questions.

A **fair test** scientific enquiry is a **set of steps** scientists follow to find the **answer to a question**.

In a **fair test** you carry out an experiment more than once. Each time you do the experiment you **change only one thing** and then observe (look) or measure what happens.



We can learn more about shadows by carrying out a fair test scientific enquiry.

Fair test scientific enquiry

Step 1

Ask a question.

Think of a question.

Step 2

What fair test experiment can be done, to answer the question?

Think of an experiment that will show the answer to the question.
The steps of an experiment are called the **method**.

Step 3

Predict the result.

What could the result be of the experiment?
This is called a prediction.

Step 4

What equipment is needed?

Decide what equipment is needed to carry out the experiment.

Step 5

What stays the same, what changes and what will be measured?

The experiment must be repeated. Decide what things stay the same, what is the **one thing that will change** and what must be measured.

Step 6

Do the experiment.

Carry out the experiment.
Observe and measure the changes, each time the experiment is repeated.

Step 7

Record the results.

Record the results using images, diagrams and tables.

Step 8

Draw a chart or graph to represent the results.

Draw a chart or graph of the results.
This makes the results easier to understand.

Step 9

Use the results from the fair test to answer the question.

Use what has been observed and recorded to answer the question.

Step 10

Judge the fair test.

Was the fair test a good test?
Can the test be better?

Step 11

Are there more questions?

Have the results of the experiment raised new questions?

Step 1

Ask a question.

Think of a question.

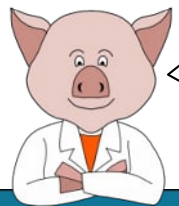


If a light source is moved closer to the object, will the size of the shadow change?

Step 2

What fair test experiment can be done, to answer the question?

Think of an experiment that will show the answer to the question. The steps of an experiment are called the **method**.



We could do an experiment to measure shadow sizes when you move a light source.

Method:

1. Shine a light source on an opaque object.
2. Position the light source so that a shadow forms on a flat surface.
3. Measure the distance between the light source and the object.
4. Measure the height of the shadow.

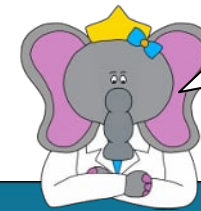
Repeat the experiment.

Remember to shorten the distance between the light source and object.

Step 3

Predict the result.

What could the result be of the experiment? This is called a prediction.



I think the shadows will get bigger when you move the light source closer to the opaque object.

Step 4

What equipment is needed?

Decide what equipment is needed to carry out the experiment.



We will need:

- **torch** - light source
- **pencil** – opaque object
- **wall** – flat surface
- **tape measure**
 - to measure the size of the shadow
 - to measure the distance between the opaque objects and the light source.

Step 5

What stays the same, what changes and what will be measured?

The experiment must be repeated. Decide what things stay the same, what is the **one thing that will change** and what must be measured.



Each time we repeat the experiment

- we will only move the light source
- the flat surface and the opaque object must stay in the same place
- we will measure the height of the shadow

The experiment will be repeated more than once.
To keep track of the changes do steps 6 and 7 together.

Step 6

Do the experiment.

Carry out the experiment.
Observe and measure the changes, each time the experiment is repeated.

We will repeat this experiment four times. Each time we must shine a light at the pencil to form a shadow on the wall.



The **only difference** will be the distance between the light source (torch) and the opaque object (pencil).

Step 7

Record the results.

Record the results using images, diagrams and tables.

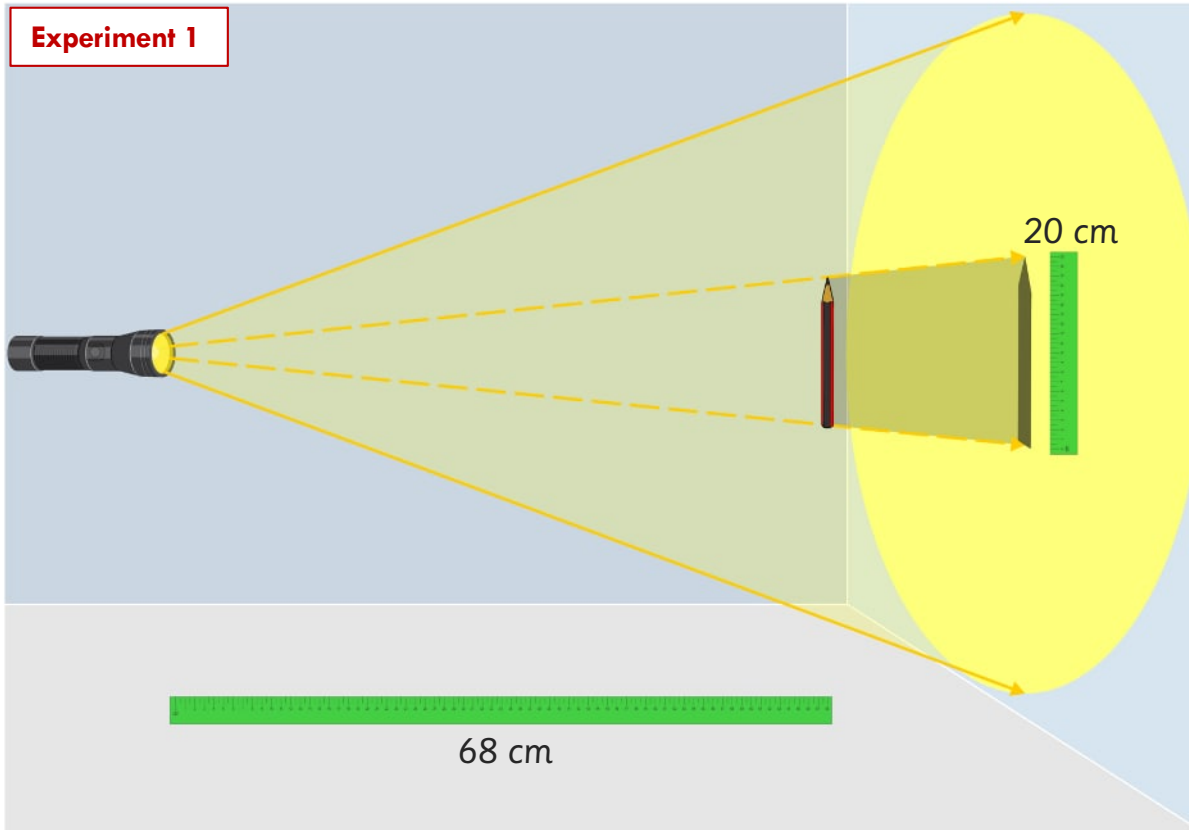
After each time we repeat the experiment, we must record:

- the distance between the torch and the pencil and
- the height of the shadow.

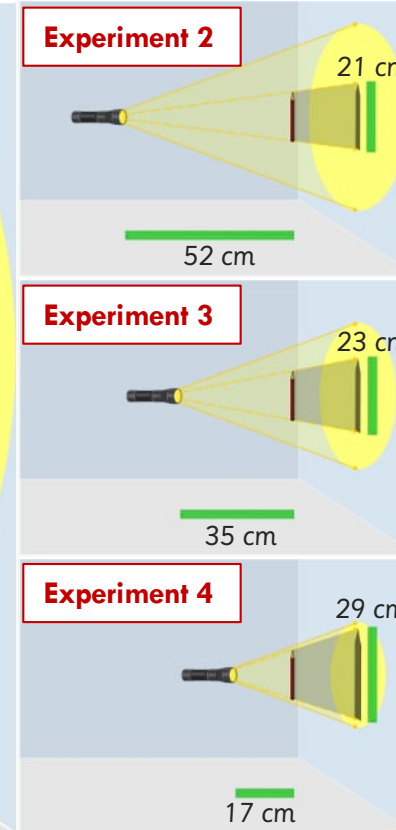


To make this easy, we can use a table to record the information.

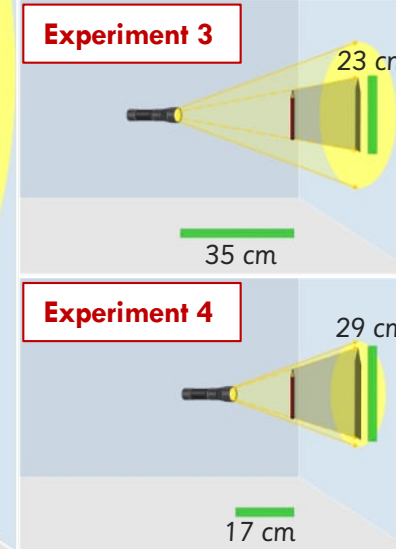
Experiment 1



Experiment 2



Experiment 3



Experiment 4

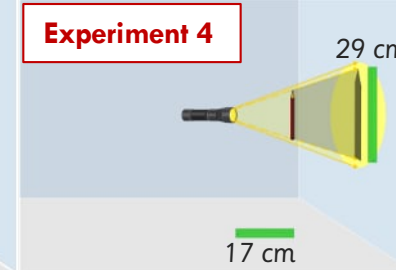


Table - record of results

Experiment	Distance between light source and opaque object	Shadow height
1	68 cm	20 cm
2	52 cm	21 cm
3	35 cm	23 cm
4	17 cm	29 cm

Step 8

Draw a chart or graph to represent the results.

Draw a chart or graph of the results.
This makes the results easier to understand.

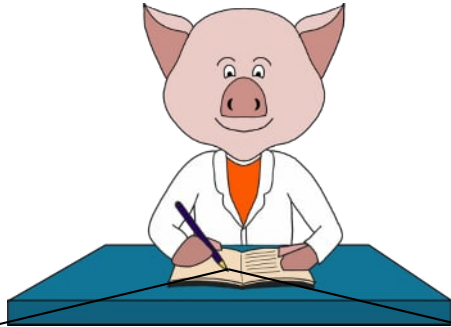
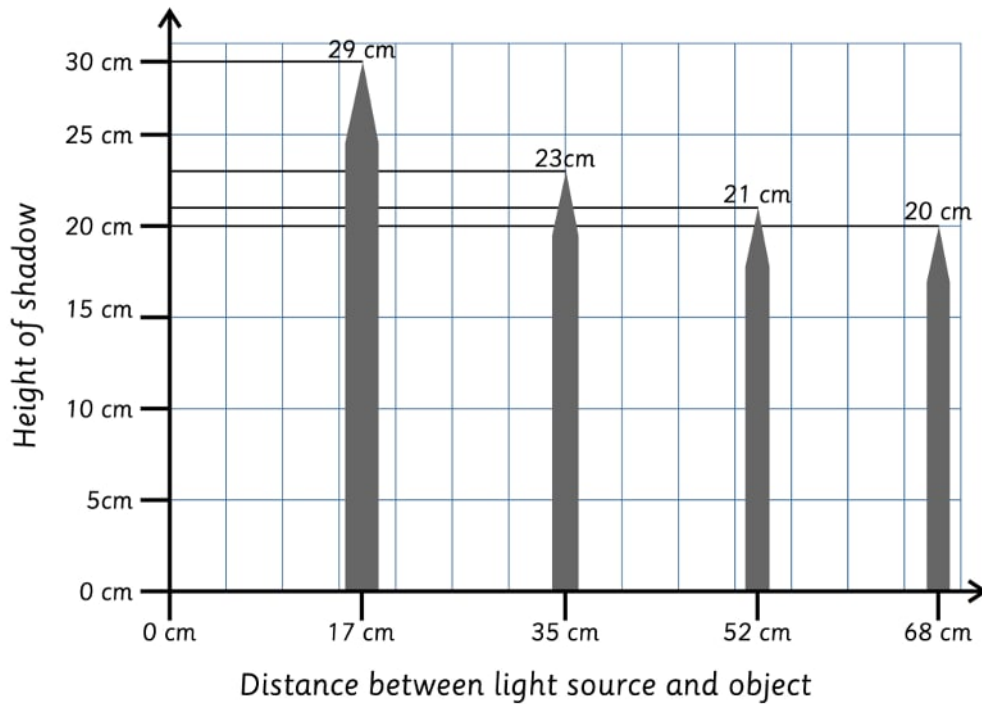


Chart showing the height of shadows at different distances between the light source and an opaque object



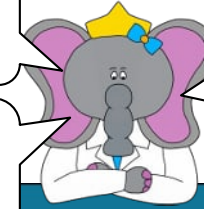
Step 9

Use the results from the fair test to answer the question.

Use what has been observed and recorded to answer the question.

If a light source is moved closer to the object, will the size of the shadow change?

From the chart we can see that the shadow gets bigger, the closer we move the light source to the object.



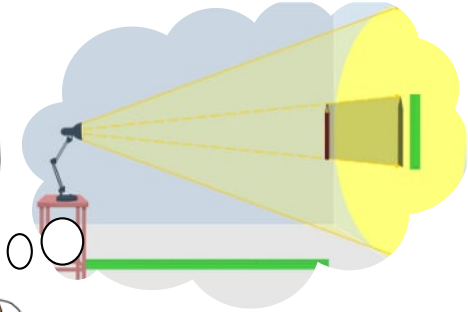
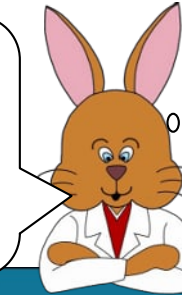
Yes, if you move a light source closer to the object, the size of the shadow gets bigger.

Step 10

Judge the fair test.

Was the fair test a good test?
Can the test be better?

The fair test worked well, but it was difficult to hold the torch at the same height and angle.
It would be better, if we used a desk lamp as the light source.



Step 11

Are there more questions?

Have the results of the experiment raised new questions?



Does changing the angle of the light source change the size of the shadow?



Can you order the eleven steps of a fair test scientific enquiry?



First match the step to the correct heading. Then match the heading to the correct explanation.



Just like this!



Step 1

- What stays the same, what changes and what will be measured?

Step 2

- Ask a question.

Step 3

- Record the results.

Step 4

- What fair test experiment can be done, to answer the question?

Step 5

- Are there more questions?

Step 6

- Judge the fair test.

Step 7

- Predict the result.

Step 8

- What equipment is needed?

Step 9

- Do the experiment.

Step 10

- Draw a chart or graph to represent the results.

Step 11

- Use the results from the fair test to answer the question.

- Think of an experiment that will show the answer to the question. The steps of an experiment are called the **method**.

- Record the results using images, diagrams and tables.

- The experiment must be repeated. Decide what things stay the same, what is the **one thing that will change** and what must be measured.

- Decide what equipment is needed to carry out the experiment.

- Think of a question.

- Draw a chart or graph of the results. This makes the results easier to understand.

- Have the results of the experiment raised new questions?

- Use what has been observed and recorded to answer the question.

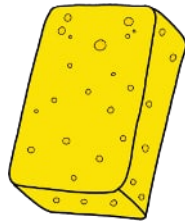
- What could the result be of the experiment? This is called a prediction.

- Carry out the experiment. Observe and measure the changes, each time the experiment is repeated.

- Was the fair test a good test? Can the test be better?

Solid Materials

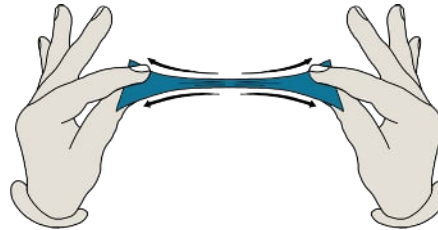
Solid materials keep their shape.
Some solid materials can change their shapes if they are squeezed, stretched, twisted or bent.



squeeze



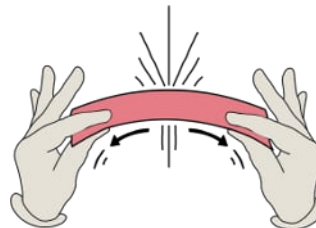
stretch



twist



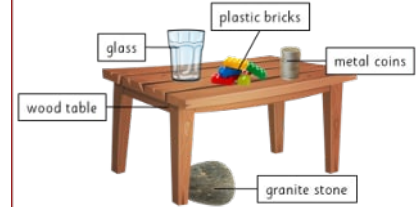
bend



What can you remember?

Hard materials

Hard materials do not change shape when pressed.



The bricks, coins, stone, glass and table are all made of different materials.
All these objects are hard.
Hardness is a property of these materials.

Soft materials

Soft materials change shape when pressed.



Not all plastic is hard.
This plastic bag is soft.



Fabric is soft. We use fabric to make blankets and clothes. Soft materials are easy to fold and can be used to cover objects.



Sheets of paper are also soft. They are easy to fold and even crumple into a ball.



Leather is a soft, flexible and very strong. These properties make leather a good material for shoes and boots.

Rigid materials cannot bend.



The outer part of a pencil is made of hard, rigid wood.



If you try bend the pencil, it will snap.



Flexible materials bend.

The more flexible a material is, the more it can bend before it snaps.



Leather, rubber, paper and fabric are examples of flexible materials.



Many plastics are flexible. Plastic bags are very flexible and can even be folded without breaking. Other plastics like those used to make buckets can only bend a little before they will break.



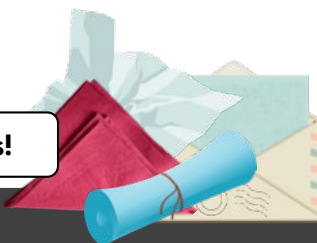
Can you identify properties of different solid materials?



Think about each object. Ask yourself if it can be squeezed into different shapes. Can it be stretched, twisted or bent? Tick the yes or no box for each question. Then decide if the object is rigid or flexible, hard or soft.



Just like this!



Properties of paper

- Can it be squeezed? Yes ☒ No ☐
- Can it be stretched? Yes ☐ No ☒
- Can it be twisted? Yes ☒ No ☐
- Can it be bent? Yes ☒ No ☐
- Paper is rigid ☐ flexible ☒.
- Paper is soft ☒ hard ☐.



Properties of a river pebble

- Can it be squeezed? Yes ☐ No ☐
- Can it be stretched? Yes ☐ No ☐
- Can it be twisted? Yes ☐ No ☐
- Can it be bent? Yes ☐ No ☐
- River pebbles are rigid ☐ flexible ☐.
- River pebbles are soft ☐ hard ☐.

Properties of plastic blocks



- Can it be squeezed? Yes ☐ No ☐
- Can it be stretched? Yes ☐ No ☐
- Can it be twisted? Yes ☐ No ☐
- Can it be bent? Yes ☐ No ☐
- Plastic blocks are rigid ☐ flexible ☐.
- Plastic blocks are soft ☐ hard ☐.



Properties of a rubber band

- Can it be squeezed? Yes ☐ No ☐
- Can it be stretched? Yes ☐ No ☐
- Can it be twisted? Yes ☐ No ☐
- Can it be bent? Yes ☐ No ☐
- A rubber band is rigid ☐ flexible ☐.
- A rubber band is soft ☐ hard ☐.



Properties of metal spoon

- Can it be squeezed? Yes ☐ No ☐
- Can it be stretched? Yes ☐ No ☐
- Can it be twisted? Yes ☐ No ☐
- Can it be bent? Yes ☐ No ☐
- A metal spoon is rigid ☐ flexible ☐.
- A metal spoon is soft ☐ hard ☐.



Properties of a plastic bag

- Can it be squeezed? Yes ☐ No ☐
- Can it be stretched? Yes ☐ No ☐
- Can it be twisted? Yes ☐ No ☐
- Can it be bent? Yes ☐ No ☐
- A plastic bag is rigid ☐ flexible ☐.
- A plastic bag is soft ☐ hard ☐.



Can it be squeezed? Yes ☐ No ☐

Can it be stretched? Yes ☐ No ☐

Can it be twisted? Yes ☐ No ☐

Can it be bent? Yes ☐ No ☐

A glass jar is rigid ☐ flexible ☐.

A glass jar is soft ☐ hard ☐.



Can it be squeezed? Yes ☐ No ☐

Can it be stretched? Yes ☐ No ☐

Can it be twisted? Yes ☐ No ☐

Can it be bent? Yes ☐ No ☐

A blanket is rigid ☐ flexible ☒.

A blanket is soft ☐ hard ☐.



Can it be squeezed? Yes ☐ No ☐

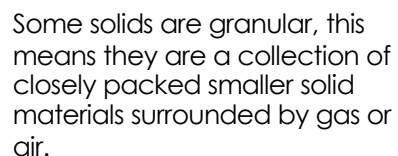
Can it be stretched? Yes ☐ No ☐

Can it be twisted? Yes ☐ No ☐

Can it be bent? Yes ☐ No ☐

Modelling clay is rigid ☐ flexible ☐.

Modelling clay is soft hard .



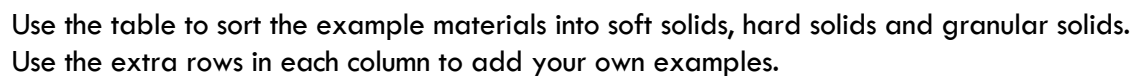
Examples of granular solids



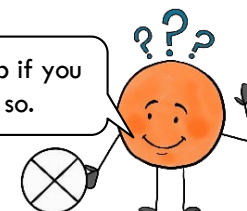
flour

salt

sand

[illegible]

Ask for help if you need to do so.



City Park





Read the instruction.



Look carefully at the illustration of the City Park.



Find the clues.

Record your answer.



Write



Tick



Draw



What can you remember?

1 Draw a square around the small dog.

(a) What sense did the dog use to find the bone?

(b) Why must animals eat food?

(c) What group of vertebrates do dogs belong to?

(d) What type of skin covering do dogs have?

(e) Are dogs, examples of cold-blooded or warm-blooded animals?



2 Draw a circle around the tortoise.

(a) What life process does the tortoise use to find food and stay safe?

(b) What group of vertebrates do tortoises belong to?

(c) What type of skin covering do tortoises have?

3 Draw a triangle around the fish.

(a) What do fish use to breath?

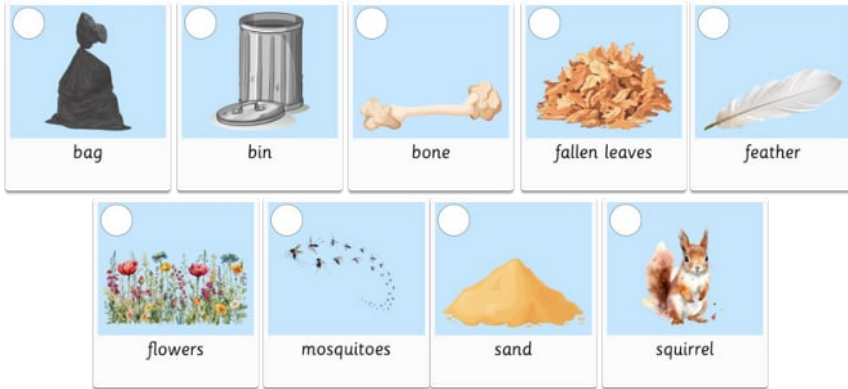
(b) What type of skin covering do fish have?

(c) Are fish, examples of cold-blooded or warm-blooded animals?





Sally has taken photographs of different things in the city park.



What can you remember?



(a) Write the name of each thing in the correct group?

living	once alive	never lived

(b) Name an object made of a granular solid material.

(c) How many legs do mosquitoes have?



Look at the three objects.



Write the name of the object that match the ticked properties in the boxes.

Can it be squeezed?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Can it be stretched?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Can it be twisted?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Can it be bent?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
It is rigid		<input checked="" type="checkbox"/>	flexible	<input type="checkbox"/>
It is soft		<input type="checkbox"/>	hard	<input checked="" type="checkbox"/>

Can it be squeezed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Can it be stretched?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Can it be twisted?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Can it be bent?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
It is rigid		<input type="checkbox"/>	flexible	<input checked="" type="checkbox"/>
It is soft		<input checked="" type="checkbox"/>	hard	<input type="checkbox"/>

Can it be squeezed?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Can it be stretched?	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>
Can it be twisted?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Can it be bent?	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
It is rigid		<input type="checkbox"/>	flexible	<input checked="" type="checkbox"/>
It is soft		<input checked="" type="checkbox"/>	hard	<input type="checkbox"/>

Draw a line to match the word to its description.

opaque

●

●

allows all light to passes through

translucent

●

●

blocks all light

transparent

●

●

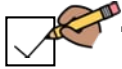
allows some light to pass through





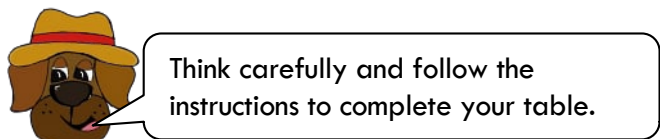
What can you remember?

A light source is used to make a shadow of a cup.



Tick the diagram that shows the shadow in the correct position.





Just like this! Tick ✓ one column per row.

Learner Success Criteria	
1	I can write my name.
2	I can control my pencil.

Key	I got this!	I'm getting this! [with my teacher's help]	I can't do this yet!
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Learner Success Criteria				
1	I can describe differences between things that are living, that were once alive and that have never lived.			
2	I understand that all living plants and animals, sense, move, reproduce, eat and grow and that these are some of the life processes characteristic of life.			
3	I can explain how plants and animals, sense, move, reproduce, eat and grow.			
4	I can identify a light source, the direction of the light rays, an object blocking light and a shadow.			
5	I understand that some materials block light and other materials allow light to pass through.			
6	I can use the words opaque, transparent and translucent when describing if a material blocks light or allows light to pass through.			
7	I can follow the steps of a fair test, changing only one thing each time, to answer a scientific question.			
8	I can identify different properties of solid materials.			

I still need my teacher to help me with number or numbers...

Write down the number of your favourite topic.