

## 5 Sorting and grouping materials

The objects around us are made from materials.  
Let us find out more about what some materials are like.

Which materials can you see in the classroom?



Many objects are made of wood, stone or glass.  
Humans can make plastic in bright colours.  
Our clothes are made from fabrics like wool and cotton.  
Humans have used metals to make tools for thousands of years.

# Wood

Everything around us is made from **materials**.  
**Wood** is a material we can use to make things.



Wood comes from trees. The tree trunk and big branches are cut down to make **logs**.

The logs are cut to make long, flat pieces of wood.  
 Humans use wood to build parts of houses ...



... and to make **furniture**.

Wood is used to make toys.



Wood can be cut into lots of shapes.  
 Wood can be painted different colours.



What is wood being used for here?



This person is carving wood. What do you think he is making?



What is made of wood in your classroom and at home?

## Key words

materials wood logs furniture

# Stone and glass

Humans have used **stone** as a **building** material for **thousands** of years.



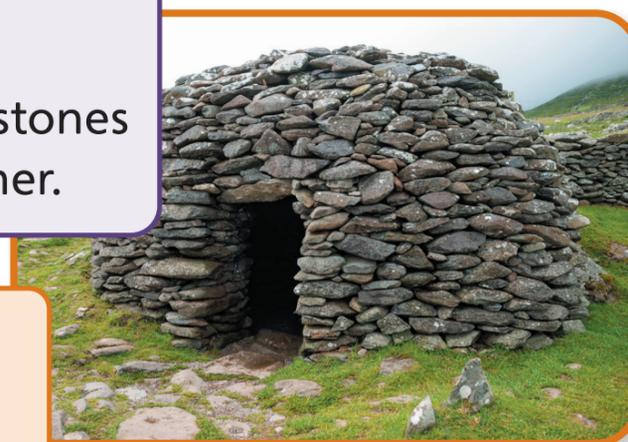
These buildings are made of stone.



Marble is a very hard type of stone used to make **statues**.



Stone is a hard material. This simple hut is made from stones but they are not joined together.



Can you see a stone wall behind the hut?

**Glass** is used to make windows.



Look for things made of stone and glass where you live.

We use glass objects at home and in science.

Which of these are used by scientists at work?



## Key words

stone building thousands statues glass

# Fabrics

Fabrics are **soft** materials that are used to make clothes, curtains and rugs.



Fabrics have different textures. Their **surfaces** feel different.

Which of our sense organs feels textures?



furry



smooth



rough

**Cotton** fabric helps to keep us **cool**.



We get cotton from plants.

**Woollen** fabric keeps us **warm**.

Wool comes from animals.



These animals are **goats**.

Find out which other animals can give us wool.



This is a **sheep**.  
Look at its thick woolly coat.



Look for things made from different fabrics. Are any of them cotton or wool?

## Key words

- fabrics
- soft
- surfaces
- furry
- smooth
- rough
- cotton
- cool
- woollen
- warm
- sheep
- goats

# Plastic

Plastic is a **human made** material.

Most plastic is made from **oil**.  
Some plastics are now made in other ways.



Many people are now trying to use less plastic.  
Suggest why.



glass milk bottle

What sort of bottle do you get milk in?  
Which bottle do you think is better?  
Why?



plastic milk bottle

Plastic can be lots of different colours.

plastic bowls



wooden bowl



Which bowl do you like best?

It is easy to **mould** plastic into different shapes in a **factory**.

Plastic is smooth.  
It can be moulded to have a rough surface.



Where are the rough surfaces on these steps?  
Why are these parts made rougher?



## Key words

plastic human made oil mould factory

# Metal

**Metals** are **hard** materials. Some metals are harder than others.

Titanium is a very hard metal that can be used to mend our bones.

Titanium does not **bend** when we do. It holds the bones in place.

Where are these bones found in humans?



We use metals to make **tools**.



Why do tools need to be hard?

**Softer** metals bend **easily** into new shapes. Gold is a metal that is used to make rings and bracelets.



Metals look very **shiny**.



Silver is used to make **jewellery** too.



Look for some metal objects in your classroom. Are they shiny? Are they hard? Are they bent?

## Key words

- metals
- hard
- bend
- tools
- softer
- easily
- shiny
- jewellery

# Sorting materials

We can **sort** materials into groups.

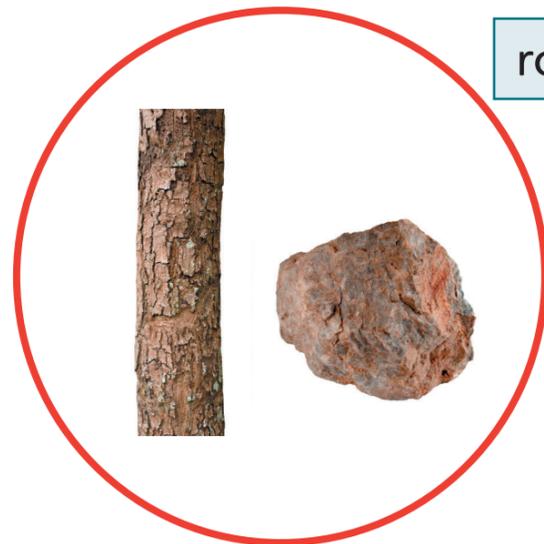
We can sort materials by their **colour**.

red



What materials are these **red** objects made from?

rough



smooth



We can sort materials by their texture.

What materials are these objects made from?

How are these materials sorted?



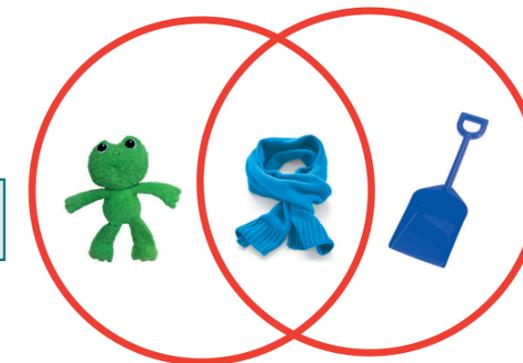
Sometimes an object fits into more than one **circle**.



This scarf is blue **and** soft. Where do I put it?



soft



blue

You put things that are blue **and** soft in the middle. Then they are in both circles.

**Key words**

sort colour red circle



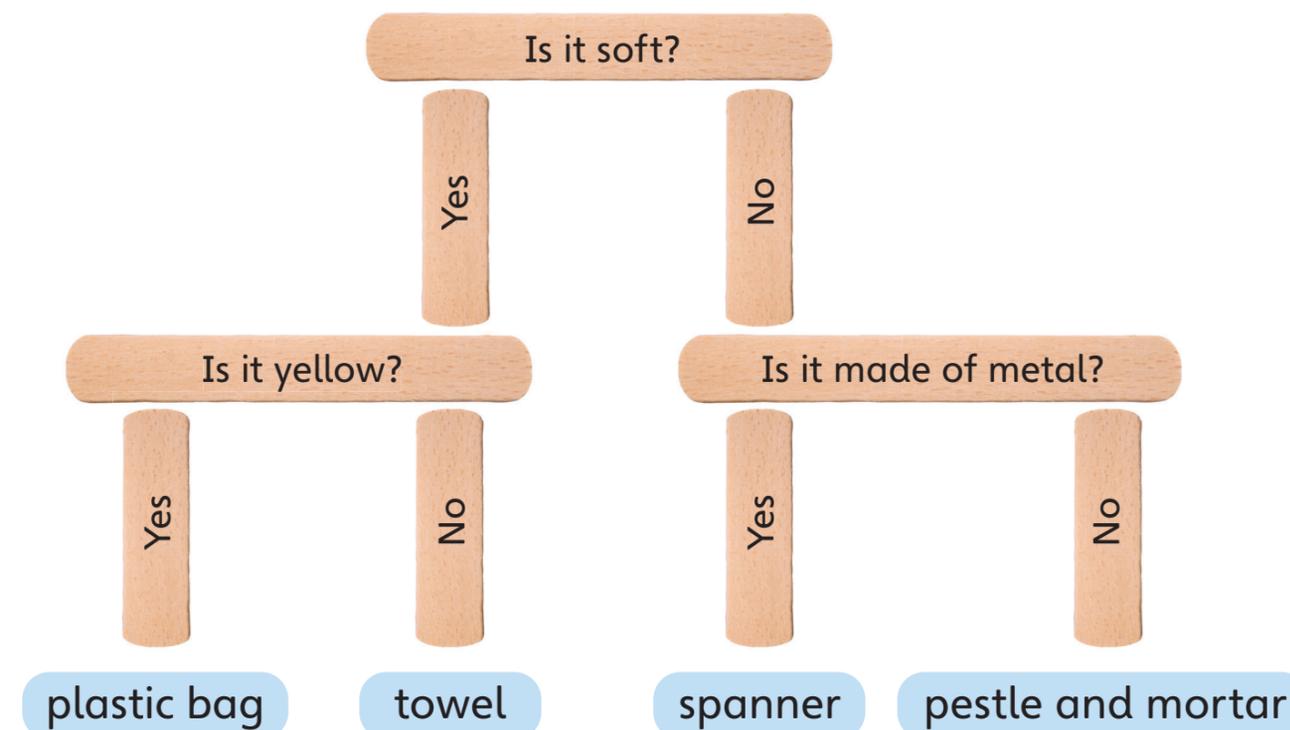
# Using a key for materials

We can use a key to identify animals.  
We can also use a key to identify materials.



Here are some objects.  
Can you identify them using the key?

You may know what all these objects are. Still work through the key to check you know how to use it.



Object A is soft and blue and made of fabric.

Can you describe objects B, C and D like this?

Try making your own key for the objects in the table on page 116 of your workbook.

# End of topic questions

## Sorting and grouping materials

- 1 These objects can be found in a kitchen. Describe them using as many different words as you can.

 <p> pans </p>	 <p> spoon </p>
 <p> grater </p>	 <p> bottle </p>
 <p> bowl </p>	 <p> cloth </p>

- 2 Take turns with a partner to each think of an object that is:

hard

metal

red

soft

rough

glass

smooth

shiny

wooden

blue

stone

plastic

fabric

painted