

What should I already know?

- I know the difference between an object and the material it is made from.
- I can identify and name a variety of materials including wood, plastic, glass and metal.
- I can describe the simple physical properties of everyday materials
- I can compare and group materials based on their properties.

Vocabulary

shape	The outline of an object.
pull	Bringing something closer.
twist	Turn to face a different direction.
squash	Make something smaller by pushing.
bend	Change so not in a straight line.
stretch	To make something longer or wider.
translucent	Lets light through.
reflective	Bounces light back from the surface.
flexible	Able to bend and not break.
rigid	Stiff, doesn't bend.

Materials

Materials are the substances that things are made from.

Different materials have different properties: they behave or do things in different ways.

Metal	Glass	Wood	Rubber	Cardboard
				
• Metals are strong, shiny, hard and long-lasting. • Metals can be hammered into different shapes.	• Glass can be strong, but thin glass shatters. • Glass is transparent and waterproof. It can be made into different shapes.	• Wood is hard and strong. • Wood is long-lasting and is a natural material. • Wood burns.	• Rubber is very tough but also very flexible. • Rubber is elastic and also waterproof. It doesn't tear easily.	• Cardboard is thicker and tougher than paper. • Card is more difficult to tear but goes soggy when wet.
• Metals can be made into things like pots and pans. • Metals can be stretched into wires and rods.	• Glass is most often used to make windows and glasses. • It is also used in making mirrors, and spectacles.	• Wood is often used to build furniture, like benches and desks. • Wood can be used to build houses.	• Rubber is used for birthday balloons and erasers. • It is used in rubber bands because it is very stretchy.	• Cardboard is often turned into boxes and used for packaging items. • It can be used by artists for pictures.

Development of Materials

	John Dunlop - famous for developing air filled tyres. He did it to improve his son's bike!
	Charles Macintosh - invented the raincoat. He put rubber between two layers of cloth to make it waterproof.
	John McAdam - was the first person to think of tarmac roads. It made roads smooth and easier to travel on.

Squashing		Crush something so that it becomes flat, soft, or out of shape.
Bending		Change a straight object so that it is curved.
Twisting		Change the shape of an object by turning it.
Stretching		Make something longer or wider without tearing or breaking it.