

Uses of everyday materials

What I should already know

- Objects are things that you can touch or see.
- Objects are made from materials.
- Some materials that objects are made from. (e.g. glass, wood, plastic)
- Some words to describe materials. (e.g. shiny, soft, rough absorbent)
- Materials which are natural and which are man-made.

Investigate!

- Investigate how some objects can be changed by squashing, bending, twisting and stretching.
- Find out about people who have developed useful new materials, for example John Dunlop, Charles Macintosh or John McAdam.

Key Vocabulary

bendy	an object that bends easily into a curved shape
elastic	a rubber material that stretches when you pull it and returns to its original size and shape when you let it go
plastic	a material which is light in weight and does not break easily
process	things are created by people
purpose	a series of actions used to produce something or reach a goal.
soft	not rough or hard
squash	pressed or crushed with such force that something loses its shape
stiff	firm or does not bend easily
stretch	To make longer or wider without breaking
twist	turn something to make a spiral shape

Key knowledge

- The shape of some materials can be changed when they are squashed, bent, twisted and stretched.
- Materials that have **elastic** properties, such as rubber bands, can be stretched to change their shape. They will return to their original shape when no longer being stretched.
- Some materials are **stiff** and cannot change shape without breaking.
- Some stiff materials can change their shape when they are heated. Wax crayons or candles are stiff when cold, but if they are heated they start to become soft which allows them to be moulded into a different shape.

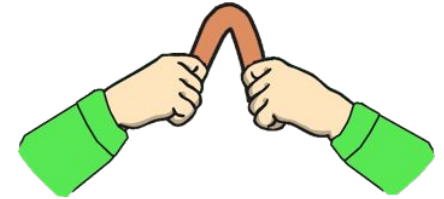
Key question

Which materials can be squashed, bent, twisted or stretched?

Squash an object by pushing both hands together.



Bend an object by grabbing both ends of the object and bringing the ends inwards together.



Twist an object by turning your hands in opposite directions.



Stretch an object by pulling your hands slowly and gently apart.

