

Key Vocabulary

Word	Meaning
materials	What an object is made from
suitability	Having the properties for a specific purpose
properties	What a material is like and how it behaves
Waterproof	Does not absorb water
Absorbent	Able to soak up liquid
Opaque	Cannot be seen through
Translucent	Allows some light to pass through
Dull	Lacking shine or brightness
Brittle	Hard, but may break easily

FUN FACT:

Plastic is made from oil – we now use about 20 times more plastic than we did 50 years ago.

Properties of Materials

Knowledge

Squashing, Bending, Twisting and Stretching

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.

Useful links

<https://www.bbc.co.uk/bitesize/clips/>

The Materials song:



Learning Outcomes

- Identify and compare the suitability of a variety of everyday materials
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching
- Find out about people who developed useful new materials.



Charles Macintosh

29 December 1766 – 25 July 1843

Invented the first waterproof fabric by painting a dissolved rubber solution onto cloth.



<p>Squash an object by pushing both hands together.</p>	<p>Bend an object by grabbing both ends of the object and bringing the ends inwards together.</p>
<p>Twist an object by turning your hands in opposite directions.</p>	<p>Stretch an object by pulling your hands slowly and gently apart.</p>
<p>wood: hard, stiff, strong, opaque, can be carved into any shape.</p>	<p>glass: waterproof, transparent, hard, smooth.</p>
<p>plastic: waterproof, strong, can be made to be flexible or stiff, smooth or rough.</p>	<p>metal: strong, hard, easy to wash.</p>
<p>paper: lightweight, flexible.</p>	<p>cardboard: strong, light, stiff.</p>
<p>fabric: soft, flexible, hard-wearing, can be stretchy, warm, absorbent.</p>	<p>rubber: hard-wearing, elastic, flexible, strong.</p>