



Year 2 - Autumn 1 - Science - Materials

Previously learnt vocabulary	
material	Objects around us are made from material like wood, plastic, metal or glass.
New vocabulary	
rigid	Something that is hard and does not bend easily.
flexible	Something that bends and can change shape easily.
waterproof	Materials that do not let liquid like water get through.
absorbent	Materials that soak up and hold liquids like a sponge.
transparent	Transparent materials are completely see-through.
opaque	You cannot see through opaque materials.
suitable	Something that is right for its purpose for example, a paper rain coat is not suitable.

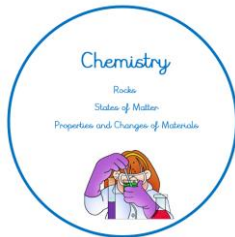
Key Facts
Some materials can change shape easily and some cannot, this depends if they are hard or soft.
You can change the shape of some materials by bending, squashing, stretching and squashing.
Materials need to be suitable for their purpose, for example a paper umbrella would rip in the rain and a metal umbrella would be too heavy.
Prior learning
In EYFS and year 1 we have identified and named a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.
We have described simple physical properties of materials such as hard/soft stretchy/stiff in year 1.

Influential Individual



This is Charles Macintosh. He was a Scottish inventor and chemist who invented waterproof fabric in 1818. The Mackintosh raincoat was introduced in 1824.

This is a chemistry unit of Science. This is because it is looking at the substances that make up everything in the universe.



Properties of Materials

 wood: hard, stiff, strong, opaque, can be carved into any shape.	 glass: waterproof, transparent, hard, smooth.
 plastic: waterproof, strong, can be made to be flexible or stiff, smooth or rough.	 metal: strong, hard, easy to wash.
 paper: lightweight, flexible.	 cardboard: strong, light, stiff.
 fabric: soft, flexible, hard-wearing, can be stretchy, warm, absorbent.	 rubber: hard-wearing, elastic, flexible, strong.

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.

