

## KS1 – What makes an idea ‘cracking’?

### Procedural knowledge

Observe closely, using simple equipment

Identify and classify

Record their observations and ideas to suggest answers to questions

### Factual and Conceptual knowledge





#### What are materials?

Materials are the substances things are made from. Composites are two or more materials combined together.

#### What are materials used for?

Material	Properties	Uses
<b>Metal</b>	Strong, shiny, hard and opaque	coins, cans and cars
<b>Glass</b>	Transparent, hard, waterproof and smooth	windows and glasses
<b>Wood</b>	Hard, strong, opaque and flammable	benches, sheds and houses
<b>Plastic</b>	Tough or flexible. Transparent or coloured.	bottles, toys,
<b>Rock</b>	Rough, strong, opaque and hard	paving
<b>Brick</b>	Rough, strong and opaque	buildings
<b>Paper</b>	Translucent, and flexible	books and posters
<b>Cardboard</b>	Rough, dull and opaque	boxes

#### How can solid materials be changed?

			
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.
<b>squashing</b>	<b>bending</b>	<b>twisting</b>	<b>stretching</b>
Pressing, squeezing and crushing so that something becomes flat or changed into a different shape. We might use this when we are baking or using clay.	Changing something that is straight into a curve or at an angle. We might use this when we are bending a wire.	Make into a curled shape by holding and move round in different directions at the same time. We might use this with a piece of paper or material.	Pulling something to make it wider or longer without tearing. We might use this to flatten something out or when making pizza dough.

#### Who developed the use of materials?

##### Charles Mackintosh

invented the raincoat, which was referred to as a Mac or Mackintosh



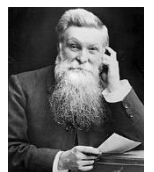
##### John McAdam

thought of tarmac to make roads have a smooth surface.



##### John Dunlop

invented the pneumatic tyre to improve his son's bicycle.



#### Key Vocabulary

material, property, transparent, translucent, opaque, absorbent, flexible, flammable, firm, waterproof, natural, composites

