




# Year 2: What are the properties of everyday materials and how are they used?

## Key Vocabulary

Materials	Materials are what objects are made from.
Properties	This is what a material is like and how it behaves (soft, stretchy, waterproof).
Transparent	A material which you can see through.
Waterproof	A material which does not let water go through it.
Rigid	An object which is unable to bend or be forced out of shape.
Flexible	An object which can easily be bend without breaking.
Durable	An object that will last a long time and is strong and sturdy.
Solid	When an object is hard and stable.
Twisting	Changing the shape of an object by turning it with your hands in opposite directions.
Bending	Changing a straight object so that it is curved.
Squashing	When you press something so that it becomes flat, soft or out of shape.
Stretching	Making an object longer or wider without tearing or breaking it.

## Working Scientifically

	Which materials will protect Humpty Dumpty the most? What properties help them to do this?
	What materials are different objects made out of? Why are they made from these materials?
	How can we group materials based on their properties?

Key scientist:

Charles Macintosh (1766-1843)



Charles Macintosh invented waterproof fabrics. This stopped people getting wet during bad weather.



We change materials when a force is used upon them.

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.



All materials have different properties.

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