



Respect,  
Believe,  
Achieve

## Year 2 Uses of every day materials

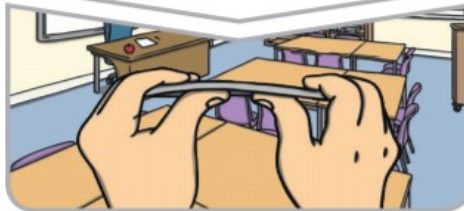
### Vocab/Key Words

<b>materials</b>	<b>Materials</b> are what objects are made from.
<b>suitability</b>	<b>Suitability</b> means having the <b>properties</b> which are right for a specific purpose.
<b>properties</b>	This is what a <b>material</b> is like and how it behaves (soft, stretchy, waterproof).

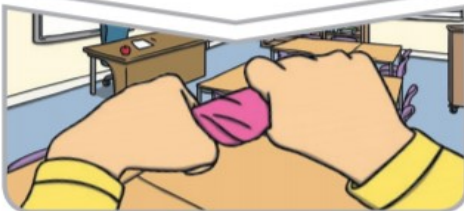
Squash an object by pushing both hands together.



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.



### As a Scientist, what do I already know?

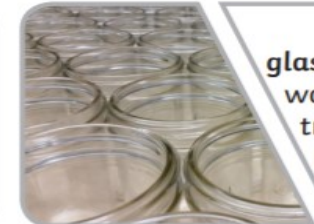
- Objects are made out of different things.
- Some objects are hard, soft, rough, smooth, see through etc

### Key Knowledge

#### Properties of Materials



**wood:**  
hard, stiff,  
strong, opaque,  
can be carved  
into any  
shape.



**glass:**  
waterproof,  
transparent,  
hard, smooth.



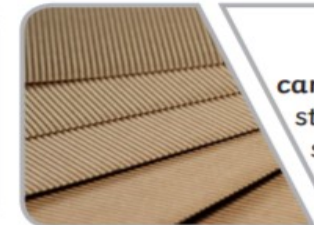
**plastic:**  
waterproof,  
strong, can  
be made to be  
flexible or stiff,  
smooth or rough.



**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.

## Key Skills

I should be able to:  
Observe objects closely, identify and classifying the uses of different materials, and record observations.  
Compare the uses of everyday materials .  
Carry out simple tests and analyse findings.

## Key Knowledge

<b>John McAdam</b>	<b>John McAdam</b> was a Scottish engineer who experimented with using new <b>materials</b> to build roads, inventing a new process called ' <b>macadamisation</b> '.
<b>John Dunlop</b>	<b>John Dunlop</b> was a Scottish inventor who invented the air-filled rubber tyre. It was originally invented in 1887 to use with bicycles, and then became very useful when automobiles were developed.
<b>Charles Macintosh</b>	<b>Charles Macintosh</b> was a Scottish inventor and chemist who invented waterproof fabrics in 1818. The Mackintosh raincoat was introduced in 1824.
<b>Macadamisation</b>	<b>Macadamisation</b> was the name given to <b>John McAdam's</b> construction process of building roads. The name tarmac means a road made like this using tar.

<https://www.bbc.co.uk/bitesize/topics/zrssgk7>

## As a Scientist, here's what I will know by the end

I will be able to identify and compare the suitability of a variety of everyday materials for different purposes.

Know how the shapes of solid objects, made from some materials, can be changed by squashing, bending, twisting and stretching.

Know about some key scientists who discovered amazing uses for some materials which we still use today.

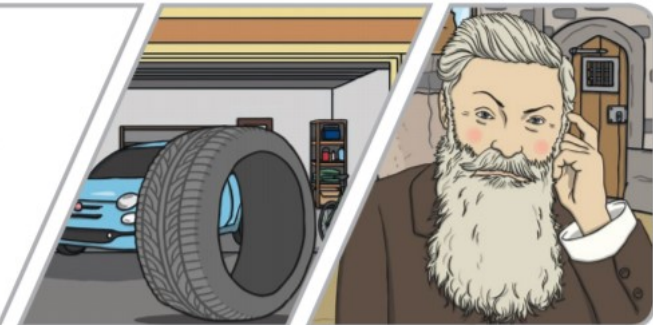
### John McAdam's

process was so successful that roads were built in this way right across the world.



### John Dunlop

originally used rubber to make tyres for his son's tricycle.



### Charles Macintosh

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

