

**Key Vocabulary**

Materials	what objects are made from
Suitability	having the properties which are right for a specific purpose
properties	what a material is like and how it behaves
Man made	a material that is made by humans or machines
Natural	a material which grows
Waterproof	water cannot get through
Not waterproof	water can get through
Flexible	can bend
Stiff	will not bend
Rough	feels bumpy and textured
Shiny	smooth and glossy
Absorbent	soaks up liquid (e.g. water)
Not absorbent	does not soak up liquid
Opaque	cannot see through it
Transparent	can see through it

**Objectives**

- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

**Properties of materials**

wood	Hard, strong, stiff, opaque
plastic	Strong, flexible, waterproof
glass	Transparent, smooth, stiff
metal	Hard, strong

**Uses of common materials**

wood	Doors, tables
plastic	Pens, rulers
glass	Windows, glasses
metal	Cars, coins
brick	Houses, walls
Paper	School books, wrapping paper
Some objects can be made from various materials	E.g. a spoon can be made from: plastic, wood or metal.

**Significant people**

John Dunlop	<ul style="list-style-type: none"> <li>• Born in 1840</li> <li>• An expert in rubber</li> <li>• Invented the first inflatable tyre</li> </ul>
Charles Macintosh	<ul style="list-style-type: none"> <li>• Born in 1766</li> <li>• Invented the first waterproof fabric</li> <li>• The 'mac' is names after him</li> </ul>
John McAdam	<ul style="list-style-type: none"> <li>• Born in 1756</li> <li>• Invented building road with a smooth, hard surface</li> </ul>

**Changing the shape of materials**

**Squashing**



Crush something so that it becomes flat, soft, or out of shape.

**Bending**



Changing a straight object so that it is curved.

**Twisting**



Change the shape of an object by turning it.

**Stretching**



Made longer or wider without tearing or breaking.