Think about an apple, a river and the air that we breathe. They seem different but they are all made of MATTER.

Charles Macintosh was a Scottish inventor and chemist who invented waterproof fabrics in 1818. The Mackintosh raincoat was named after him in 1824.

MATTER is the stuff that makes up all of the things in the world. From your shoes to a flower to the air that we breathe.
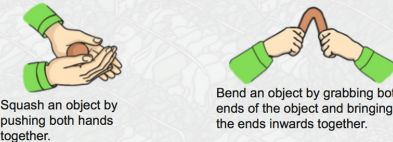
Squashing, Bending, Twisting and Stretching

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.

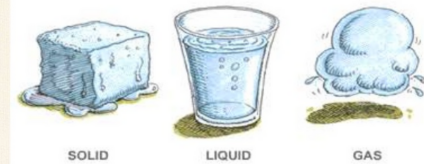Stretch an object by pulling your hands slowly and gently apart.

We can change the **SHAPE** of some solid materials by applying pressure to them e.g. squashing, bending, twisting and stretching.

Materials
rubber   plastic   wool

There are different kinds of **MATTER**.

Matter can be a solid, a liquid or a gas.

The 3 states of matter

SOLID   LIQUID   GAS

Glossary

Gas - a substance or matter in a state in which it will expand freely to fill the whole of a container, but we can't always see it

Liquid - a substance that flows freely but is of constant volume, like water or milk

Materials - this are what objects are made from

Properties - this is what a material is like and how it behaves (soft, stretchy, waterproof)
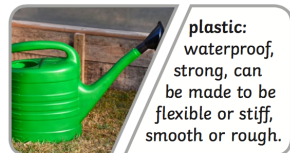
Solid - a substance or object that is solid (usually has a fixed shape)

Suitability - means which materials are suitable for a specific purpose

Different materials have different **PROPERTIES**. These properties make them suitable for different uses.

Matter makes up different types of materials. Some common materials are: wood, plastic, glass, metal, fabric, paper, rubber and cardboard.
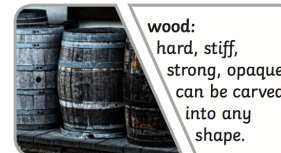
Materials and Their Properties

wood   metal   brick   ice   cloth
plastic
plastic   paper   metal
stone   metal   water   glass
fabric   wool   leaves   plastic
glass   leather

twinkl visit twinkl.com

Properties of Materials

plastic: waterproof, strong, can be made to be flexible or stiff, smooth or rough.
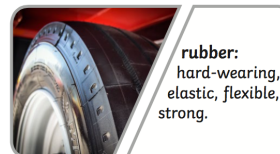
metal: strong, hard, easy to wash.

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

glass: waterproof, transparent, hard, smooth.

fabric: soft, flexible, hard-wearing, can be stretchy, warm, absorbent.
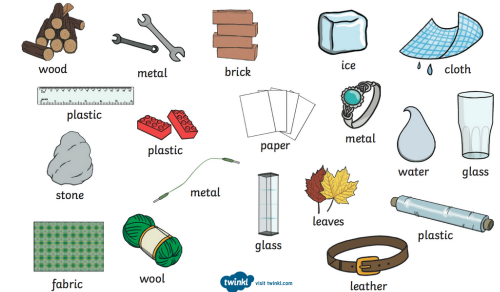
rubber: hard-wearing, elastic, flexible, strong.

paper: lightweight, flexible.

cardboard: strong, light, stiff.

Think about a window. Why do we use glass for windows? What are the properties of glass that make it suitable for windows?

all different • all equal • all smiling
COOPERS LANE