



Key Vocabulary

Word	Meaning
Property	Something we can measure, see or feel about a material
Brittle	Materials that are hard but break easily
Flexible	Materials that can bend without breaking
Strength	The amount of force needed to break a material
Toughness	Doesn't break easily
Stiffness	The amount of force needed to change the shape of a material
Elasticity	How easily something returns to its original shape
Plasticity	How easily something keeps its new shape
Absorbency	How easily a material can soak up liquid
Waterproof	How easily a material can avoid soaking up liquid

Properties

Wood– hard, strong, rigid, opaque

Plastic –bendy, sometimes brittle

Glass – transparent, brittle, stiff

Metal – hard, strong, shiny

Rock – hard, strong

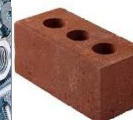
Paper – absorbent, opaque or translucent

Brick – hard, strong

Card – smooth, opaque



metal



brick



wood



plastic



rock



paper

Uses of Common Materials

Wood– door, table, pencils



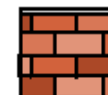
Rock – old building, garden walls



Plastic – pens, rulers, containers



Brick – houses, walls, pathways



Glass – windows, glasses



Paper – books, wrapping paper



Metal – car, coins



Card – folders, birthday cards





How you can the shape of materials?

Squashing



Squash an object by pushing both hands together.

Twisting



Twist an object by turning your hands in opposite directions.

Bending



Bend an object by grabbing both ends of the object and bringing the ends inwards together.

Stretching



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

Important Scientists

John Dunlop

- Born in 1840
- An expert in rubber
- Invented the first inflatable tyre

Charles Macintosh

- Born in 1766
- Invented waterproof fabric
- The 'Mac' raincoat is named after him

Extending your learning:

1. Investigate which materials are waterproof and which ones are not.
2. Investigate which materials are recyclable and why.
3. Find different materials around your house and how many ways you can change the shape.
4. Do some research and find an important scientist who invented a material.



Knowledge Organiser Revision Schedule

Here is the revision schedule for this half term's knowledge organiser. Please help your child to learn the specified section each week.

Week	Knowledge Organiser Section to Learn
Week 1 – w/c 2 nd Jan	Look at the definitions of words 1-4
Week 2 – w/c 9 th Jan	Look at the section on properties of materials
Week 3 – w/c 16 th Jan	Look at the definitions of words 5-8
Week 4 – w/c 23 rd Jan	Look at the section on uses of materials
Week 5 – w/c 30 th Jan	Look at the section on changing the shape of materials
Week 6 – w/c 6 th Feb	Look at the section on changing the shape of materials