Year 2: Everyday Materials

USEFUL PROPERTIES:

Some materials don't allow water to pass through them ands are known as waterproof.

Some materials hold water and are known as absorbent.

Some materials are strong, see-through (transparent), soft, light, heavy etc.

All of these properties make the material useful in different contexts.

MULTIPLE USES OF MATERIALS:

Materials, such as glass, can be used of a variety of different objects because of its properties e.g. windows, vase, bowl, drinking glass, tv screen etc.

Some objects, such as tables, can be made from different materials e.g. metal, wood, glass, plastic etc.

CHANGING MATERIALS:

Some materials that we use are malleable—meaning that the shape of them can be changed e.g. playdough.

Some materials can be changed due to the conditions that they are put under.

Some materials can become hard e.g. metal when it cools and sets

Some materials can become soft e.g. plastic when it is heated

The shape of some materials can be changed without breaking them.

SCIENTIST STUDY:

John Loudon McAdam (1756 - 1836)

John McAdam was a Scottish inventor.

He was not happy with the poor conditions of roads and decided to make them better.

Until this time, roads were often made out of soft materials, such as chalk or clay and when wet, would often break up or become difficult to travel on.

Some roads were cobbled but this made the journey's very bumpy and still difficult to travel on.

John decided to cover the ground with a layer of big stones and then put smaller stones and gravel on top. This made a hard, quite smooth surface. He also worked out that roads needed to be curved so that water could run down the sides.

Later, people added tar on top. Tar is a sticky material when it is very hot, but sets hard to make a smooth road surface.

John helped to improve all the roads in the United Kingdom over a period of about 30 years. Other countries around the world built their roads in the same way.

KEY VOCABULARY:

ABSORBENT: able to soak up water easily.

FLEXIBLE: capable of bending easily without breaking

MALLEABLE: able to be hammered or pressed into shape without breaking or cracking

PROPERTIES: the qualities of features that belong to something or reach a goal

TRANSPARENT: allowing light to pass through so that objects can be distinctly seen

WATERPROOF: does not let water pass through

Can You Squash It?	Can You Bend It?	Can you Twist It?	Can You Stretch It?