



Science – Uses of everyday materials

Key Vocabulary

Materials – are what objects are made of.

Suitability – the quality of being right or appropriate for a particular person, purpose or situation.

Properties – this is what a material is like and how it behaves (soft, stretchy).

Absorbent – is able to soak up liquid easily.

Non-absorbent – not capable of absorbing or soaking up liquids.

Transparent – allows light to pass through so that objects behind can be distinctly seen.

Opaque – not able to be seen through; not transparent.

Macadamisation – was the name given to **John McAdam's** construction process of building roads. The name tarmac means a road like this using tar.

Key Knowledge

Properties of Materials



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



paper:
lightweight,
flexible.



glass:
waterproof,
transparent,
hard, smooth.



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



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



metal:
strong, hard,
easy to wash.



cardboard:
strong, light,
stiff.

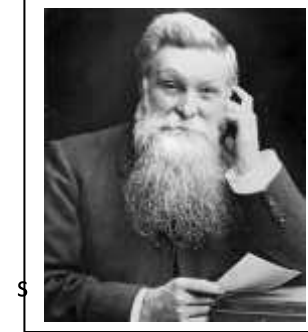
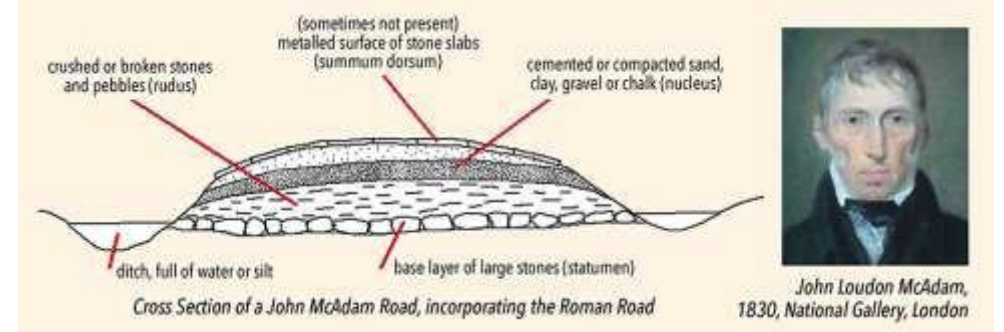


rubber:
hard-wearing,
elastic, flexible,
strong.

Key Significant Figures who developed new materials

John McAdam – was a Scottish engineer who experimented with using new **materials** to build roads, inventing a new process called '**macadamisation**'.

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



John Dunlop – 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.

He originally used rubber to make tyres for his bicycle.

Charles Macintosh – was a Scottish inventor and chemist who invented waterproof fabrics in 1818. The Macintosh raincoat was introduced in 1824.

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

