

Year 2 Science: Materials Knowledge Builder

Materials are the substances that objects are made from. We use a wide range of different materials daily; these might include metal, plastic, wood, glass, ceramics and fabric. Different materials have different features, or properties, which make them suitable for different uses. We will be exploring the properties of materials. For example, is the material hard or soft, dull or shiny, smooth or rough, waterproof or non-waterproof?

Some materials maybe more suitable than others for particular uses for example, metal shoes wouldn't be very comfortable and a cardboard door wouldn't be very strong! We will explore the purpose and appropriateness of different materials for specific tasks. We will also investigate how some materials can bend, stretch, twist and squash.



Properties of materials:

Hard – Solid and firm to touch.

Soft – Will move with touch and pressure.

Stretchy – Capable of being stretched.

Stiff – Difficult or impossible to bend or flex.

Shiny – Bright or glossy in appearance.

Dull – Not bright, shiny or clear.

Rough – Has an uneven surface.

Smooth – Has a flat, even surface.

Bendy – Flexible, moves easily.

Waterproof – Water does not go through.

Absorbent – Able to suck up a liquid.

Opaque – Doesn't let light through.

Transparent – Allows light to pass through.

Everyday Materials:

Wood – A hard material that comes from the branches and trunks of trees.

Plastic – A man-made material that can be shaped when soft into many different forms.

Glass – A hard, transparent material, used to make windows and bottles.

Metal – A material that is generally hard and strong - electricity and heat can travel through it.

Rock – The dry solid part of the earth's surface.

Cardboard – A lot thicker than paper and much stronger.



Metal is strong and smooth which makes it a suitable material to make a fork.



Plastic is waterproof and transparent which means it is a suitable material to make a water bottle.



Wood is hard which means it is a suitable material to make a chair.

Did you know?

Materials exist in three states: a solid, a liquid or a gas. Materials can sometimes be changed from one state to another, perhaps by heating them – for example, ice is a solid which becomes a liquid when it's heated.