

Science - Year 2 – Autumn - Why are different materials used to make different things?



What I already know:

- I can distinguish between an object and the material from which it is made.
- I can raise, discuss and answer questions about everyday materials.
- I know that an object is made from/of a material.
- I know and can name a wide variety of materials including, wood, plastic, glass, metal, water, and rock.
- I know that materials have properties and name these, such as opaque, transparent, hard, soft, flexible and stiff.
- I can group some everyday materials based on their physical properties
- I know that some materials are waterproof.

What I need to know:

- To know that a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard are suitable for particular uses.
- To know that it is the properties of materials that make them suitable or unsuitable for particular purposes.
- To know that the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
- To know that applying forces to objects can change their shape, by squeezing, stretching, bending and twisting.
- To know where materials come from and their impact on the environment.
- To know how to make more sustainable choices when choosing objects made from different materials.
- To know that different materials can be recycled, reused and reduced.
- To know that absorbent materials are used to absorb liquids.
- To know how to complete a results table.



SDG Link:

This SDG aims to transform unsustainable production and consumption patterns to protect the planet.

Vocabulary Focus

Tier 1:

Wood - the hard material that makes up the trunk and branches of a tree.

Glass - a hard, clear material. Glass is used to make things such as windows, bottles, and mirrors..

Fabric - cloth that is woven; material.

Metal - a kind of chemical element, such as copper, iron, or silver, that can move heat or electricity through itself.

Plastic - an artificial substance made from certain kinds of chemicals that can be shaped when soft.

Water - the clear liquid that is in rain and that fills up rivers, lakes, and oceans.

Stretch - To make something longer or wider

Change - to make different.

Strength - the state or condition of being strong

Squash - To press into a flat shape.

Bend - To change to a shape of a curve or angle.

Twist - To wind or weave something.

Soft - easy to bend or shape; not firm or hard.

Hard - not soft; solid.

Tier 2:

Suitable - correct for the situation or purpose

Unsuitable - not proper or appropriate

Material - anything used for building or making new things

Investigate - to look at closely so as to get information and learn the facts.

Length - the distance from one end of something to the other.

Property - an attribute, quality, or characteristic of something

Opposite - as different as possible.

Environment - everything that surrounds living things and affects growth and health; the natural world

Sustainable - capable of continuing on or being kept up over time

Recycle - When you collect and sort our rubbish instead of throwing it away. These items then get changed into something new for us to use.

Reduce - using less of things

Reuse - Using something again

Tier 3:

Absorbent - able to soak up liquid

Deformation - Changing the shape of an object

Force - power, energy, or physical strength