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

The Rivers C.of E. Academy Trust
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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.

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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 or 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