

Use of everyday materials – Unit 2

Definition: Material - It is anything made from matter that can be shaped or manipulated in order to make something.

A material is anything that physically occupies a space and has mass

Physics definition: Physics is the study of nature and how matter and energy behave.

POS: Y2 Use of everyday materials

- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching

Prior learning:

- Everything around us is made out of a material
- Understand the term material
- Explore misconception of 'material' – material is not just fabric, it can be a solid liquid or gas
- Explore natural materials – rock (granite, limestone, marble), fossil fuel (coal, oil), clay, water, air, wood, plant fibre (cotton, hemp), animal products (wool, leather, tallow, horn), plant extracts (latex)
- Explore manufactured materials – metals, paper, rubber, clay, fabrics, plastics, ceramics, synthetic materials
- Understand and can use appropriately manufactured, natural, matter and synthetic in simple choices

Links to other science topics:

- Everyday materials Y1
- Changes of state- Year 3
- Rocks - year 3

Disciplinary concepts:

Similarities and differences: How are the materials similar or different?

Function: How does the function of the object decide which material to use?

Common misconceptions:

- only fabrics are materials
- only building materials are materials
- only writing materials are materials
- the word 'rock' describes an object rather than a material
- 'solid' is another word for hard.

Core Knowledge:

- Choose the right material for the job
- Understanding materials in the real world – what they made from and why (for weather, warmth, waterproof, strength etc) (pans, bottles, window, furniture, towel)
- Explain why some objects are made from more than one material
- Can use appropriately manufactured, natural, matter and synthetic in simple choices and give reasons why they have chosen them
- Objects made of some materials can be changed in shape in different ways

Wider working knowledge:

What materials houses are made from and how it has changed over time – website: localhistories.org – a history of houses

Working scientifically:

- Compare materials
- Classify materials.
- Make suggestions about alternative materials for a purpose that are both suitable and unsuitable
- Test the properties of materials for particular uses e.g. compare the stretchiness of fabrics

CPD: Reach out – everyday materials

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End points:

- To choose suitable materials for particular purposes
- To change the shape of materials
- To describe the action that takes place to change the shape of a material