

Year 2 Science Curriculum

Working scientifically links Rubric/PCMD opp. Key Vocabulary

Uses of Everyday Materials

What's the big picture? Recap knowledge from Y1 and children to generate own questions to investigate - *"I know how to ask simple scientific questions"*

Prior learning:

Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)

Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)

Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)

Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)

National Curriculum Principles	Objectives	Knowledge and key Vocabulary	Reading opportunities	Technology
Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	I can identify and name a range of materials including wood, metal, plastic, glass, brick, rock, paper and cardboard	Children to look at and identify materials used to make objects which are composed of more than one material. Describe the properties of materials using vocabulary from year 1 plus translucent, reflective and non reflective.	The Tin Forest (Helen Ward) Traction Man (Mini Grey) Three Little Pigs (Lesley Sims)	Use camera to go on a material hunt around school.

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	I know why a material might or might not be used for a specific job	<p>Children to identify different uses for the same material and reasons why</p> <p>Children to identify different materials which can be used for the same objects eg: spoon made of plastic, wood, metal. Identify reasons why and why not - asking and answering simple questions</p> <p>Test the properties of materials for particular uses. E.g. Comparative test to select most appropriate material for rain hat (check year 1 work to ensure skills are progressive - less teacher led, ch begin to choose method and use evidence to select best option).</p>		Record a video describing the different objects and the materials.
Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	I know how materials can be changed by squashing, bending, twisting and stretching	<p>Children to test whether a range of materials can squash, pull, bend, twist and stretch. (Wood, plastic, glass, brick, rock, metal, paper and cardboard Complete and record comparative testing Why is this important - how does it link to real life - I know how to explain to others</p>		<p>Record experiment using ipad.</p> <p>Record explanations.</p>

Famous scientists

Charles Macintosh - waterproof material

John MacAdam - Tarmac

John Dunlop - discovered tyres should be filled with air

Common misconceptions

Some children may think:

- 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.
- . Smooth is the same as soft

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Enquiry ideas

<u>Comparative tests</u>	<u>Identify and classify</u>	<u>Observations over time</u>	<u>Pattern seeking</u>	<u>Research</u>
Which material would be best for...?	Sort materials according to whether they float or sink.	How long do you bubble bath bubbles last for?		How are plastics made?
Which kitchen roll is the strongest?		Observe what happens to a snowman over time?		