

# Science - Materials

EYFS CYCLE 1 (one year cycle)	EYFS CYCLE 2 (one year cycle)	KS1 CYCLE 1 <b>Spring 2</b>	KS1 CYCLE 2 <b>Spring 2</b>	KS2 CYCLE 1 <b>Summer 1</b>	KS2 CYCLE 2 <b>Summer 2</b>
Impact statements					
EYFS	EYFS	Key Stage 1		Key Stage 2	
<p>N.C</p> <p>*Explore the natural world around them.</p> <p>* Describe what they see, hear and feel whilst outside</p> <p>* Identify, compare, classify and group a variety of places, objects, materials and living things.</p> <p>*Talk about changes, including the seasons.</p> <p>* Talk about their immediate environment and compare it to other environments.</p>	<p>N.C</p> <p>Explore the natural world around them.</p> <p>* Describe what they see, hear and feel whilst outside</p> <p>* Identify, compare, classify and group a variety of places, objects, materials and living things.</p> <p>*Talk about changes, including the seasons. * Talk about their immediate environment and compare it to other environments.</p>	<p>N.C</p> <p>*Distinguish between an object and the material from which it is made</p> <p>*Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock</p> <p>*Describe the simple physical properties of a variety of everyday materials</p> <p>*Compare and group together a variety of everyday materials on the basis of their simple physical properties</p>	<p>N.C</p> <p>*Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses</p> <p>*Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		
<p><b>Explicit reference to:</b> children will use their senses to explore:</p> <p><b>Common misconceptions-</b> -material only means fabric- all plastic/wood etc. is the same.</p>	<p><b>Explicit reference to:</b> Children will use their senses to explore</p> <p><b>Common misconceptions-</b> -material only means fabric- all plastic/wood etc. is the same.</p>	<p><b>Explicit reference to include:</b> Metal, wood, plastic, rock, glass, cardboard, elastic, fabric, paper, foil, rubber, clay, Feely bag of above resources to discuss texture and to support the description of properties.</p> <p><b>Common misconceptions:</b> 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.</p>	<p><b>Explicit reference to include:</b> shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching, by changing the shape of objects. Objects to be manipulated: modelling dough, pipe cleaners, tea towels, socks, drink can, elastic bands, drinking straws and sponges. Also to reference recycling.</p> <p><b>Common misconceptions:</b> -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.</p>		

Tier 3 Vocab: EYFS	Tier 3 Vocab: EYFS	Tier 3 Vocabulary: Year 4		Tier 3 vocabulary: Year 4	
<p><b>Tier 3 Vocabulary:</b> ice, water, frozen, icicle, snow, melt, wet, cold, slippery, smooth, big, bigger, biggest, smaller, smaller, smallest, hard, soft, bendy, rigid, wood, plastic, paper, card, metal, strong, weak, hot, apply heat, waterproof, soggy, not waterproof, best, change, change back</p>	<p><b>Tier 3 Vocabulary:</b> ice, water, frozen, icicle, snow, melt, wet, cold, slippery, smooth, big, bigger, biggest, smaller, smaller, smallest, hard, soft, bendy, rigid, wood, plastic, paper, card, metal, strong, weak, hot, apply heat, waterproof, soggy, not waterproof, best, change, change back</p>	<p><b>Tier 3 Vocabulary:</b> object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through</p>	<p><b>Tier 3 Vocabulary:</b> opaque, transparent, translucent, reflective, non-reflective, flexible, rigid, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>		

Due to having a quality text approach, the materials topic often lends itself to link to a number of different real life experiences to make learning memorable. Eg into the forest- best material for a basket to carry through the woods, or best material for an umbrella to take in to the park (Voices in the park). Opportunities to develop children's own questioning.

Recycling will feature in all year groups as a way to encourage sustainability and develop the role of science ambassadors and eco council. Similarly, lots of hands on experience will be based around outdoor learning for The Croft on the Heath in all year groups. This will be incidental learning but it will be constantly revisited and reinforcing learning within the classroom.

## Skills Progression

<p><b>Skills progression</b> With Support the pupil can: Make simple predictions about what they think might happen. -Carry out simple investigations in a small group. Explain why something happened. Use this to predict what might happen next/change <b>ELG</b> -Explore the natural world around them, making observations and drawing pictures of plants and animals. - Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. -Understand some important processes and the changes in the natural world around them, including the seasons and changing states of matter.</p>	<p><b>Skills progression</b> Using observations closely to see what happens to teddy. Performing simple tests to find out which material would be suitable to make an umbrella from. To use their observations and ideas to suggest answers to questions by deciding which materials would be suitable to make an umbrella from. Compare and sort materials by practical sorting.</p>	<p><b>Skills progression</b> Use their observations, ideas and experiences to ask and answer simple questions. Record observations Suggest reasons for specific outcomes. Discussions, debates, sequencing and a local walk where children work scientifically to identify the uses of everyday materials in the local area.</p>	
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