



Science Medium Term Plan

Year 2: Materials

Curiosity

Investigation

Explanation

Science National Curriculum

- 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.
- Observing closely, using simple equipment
- Using their observations and ideas to suggest answers to questions
- Performing simple tests

Lesson	Prior Knowledge (Retrieval)	Learning Objective	Knowledge	Vocabulary
1	Name and identify metal, wood, glass, plastic, water and rock.	To identify materials that different objects are made from. <i>WS: Group materials, living things and objects.</i>	Different objects are made from different things. Things can be made from wood, plastic, metal, fabric and glass. Some objects can be made from more than one material.	Material, object, group, metal, wood, glass, plastic, fabric.
2	Different objects are made from different materials.	To identify the properties of everyday materials.	Property is a word scientists use to describe what a material is like.	Property, properties, object, material, metal, plastic, cardboard, wood,



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	Name and identify some objects and the materials they are made from.	<p><i>WS: Group materials, living things and objects.</i></p> <p><i>WS: Use simple scientific language to explain what they have found out.</i></p>	<p>Different materials have different properties.</p> <p>Properties include: hard/soft, rough/smooth, bendy/flexible, transparent/opaque, elastic (stretchy)/rigid.</p> <p>Predict what materials could be used for.</p>	brick, glass, fabric, paper, hard, soft, rough, smooth, bendy, flexible, transparent, opaque, elastic (stretchy)/rigid.
3	<p>Different materials have different properties.</p> <p>There are different properties materials have including: Hard or soft Rough or smooth Bendy or flexible Transparent or opaque Elastic (stretchy) or rigid.</p>	To identify the use of different materials.	<p>Different materials are used for different things.</p> <p>A materials' properties make it more or less suitable for a job.</p> <p>Sometimes more than one material is suitable for the same job.</p>	Properties, material, suitable, wood, plastic, metal, fabric, description, hard, soft, rough, smooth, bendy, flexible, transparent, opaque, elastic (stretchy)/rigid.
4	A property is a word used by scientists to explain what a material is like.	To classify objects based on their materials.	Different objects are made from different things.	Property, material, properties, plastic, fabric, wood, paper, metal



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	<p>Different materials have different properties.</p> <p>Different materials are used for different things.</p>			
5	<p>A property is a word used by scientists to explain what a material is like.</p> <p>Different materials are used for different things.</p>	<p>To compare objects based on their properties and find out how shapes of materials could be changed.</p> <p><i>WS: Group materials, living things and objects.</i></p>	<p>Some object's shape can be changed by either squashing, bending, twisting and/or stretching.</p> <p>Some object's shape cannot be changed.</p> <p>After some objects shape is changed their shape automatically changes back. When you change the shape of some objects, they cannot be changed back.</p>	<p>Compare, property, shape, materials, group, squash, bend, twist, stretch</p>
6	<p>Recognise water.</p>	<p><i>WS: Carry out simple tests in the correct order and recognise when something is unfair.</i></p>	<p>If something is waterproof, it keeps water out.</p> <p>If something is not waterproof, water can pass through it.</p> <p>Some materials are waterproof such as plastic and some are not such as cotton wool.</p>	<p>Waterproof, materials, cotton wool, paper towel, metal foil, felt, plastic.</p>



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		<i>WS: Use simple scientific language to explain what they have found out.</i>		
7	<p>Waterproof materials keep water out.</p> <p>Identify and name waterproof materials and non-water proof materials.</p>	<p>To find out which materials float and sink.</p> <p><i>WS: Carry out simple tests in the correct order and recognise when something is unfair.</i></p> <p><i>WS: Use simple scientific language to explain what they have found out.</i></p>	<p>Materials that float rest on the top of water such as lolly sticks and sponges.</p> <p>When something goes down in water, we say it sinks including marbles and pebbles.</p> <p>A fair test is where you only change one thing.</p>	Materials, waterproof, float, sink
8	Materials that float rest on water.	To test different materials to build a floating device.	If an object floats or sinks, depends on how compact its particles are.	Materials, float, sink, buoyant



	<p>Materials that sink go down in water.</p> <p>Identify and name materials that float and sink.</p>		<p>If something can stay on top of water scientists say it is buoyant.</p>	
9	<p>Different materials are used for different things.</p> <p>Different materials have different properties.</p>	<p>To identify which materials are recyclable.</p> <p><i>WS: Group materials, living things and objects.</i></p>	<p>Materials that can be recycled can be used again.</p> <p>Some rubbish like paper and plastic can be used again and some materials cannot be used again (non-recyclable) such as leaves and banana skins.</p>	<p>Material, recycle, environment, non-recyclable</p>

Unit of Work End Points

- Pupils can identify materials including: wood, metal, plastic, glass, brick, rock, paper and cardboard.
- Pupils can compare the properties of a variety of materials.
- Pupils can compare the suitability a variety of materials.
- Pupils can explain how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.
- Pupils can perform simple tests.