

			Everyday Materials	Everyday Materials and their uses	Rocks	States of Matter
<u>Materials</u>	Nursery	Reception	Year 1 Houses and Homes Autumn 1	Year 2 Great Fire of London Theatre Time A1 & 2	Year 3 Where in the World: Canada Where in the World: Italy <u>S2</u>	Year 4 South America and The Rainforest Autumn2
<p>Curriculum objectives Taken from Long Term Plans and NC</p>	<p>Understanding the World 3-4 years Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice</p> <p>EAD 3-4 years Explore different materials freely, in order to develop their ideas about how to use them and what to make.</p>	<p>Understanding the World - 4-5 years Describe what they see, hear and feel whilst outside. Explore the natural world around them.</p> <p><u>EAD ELG:</u> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p>	<p>Distinguish between an object and the material from which it is made Identify and name variety of everyday materials - wood, plastic, glass, metal and rock Describe the simple physical properties Compare and group everyday materials on the basis of their everyday properties</p>	<p>To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. To find out how the shape of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. Look into the life of 'John MacAdam' to help understand the development of newer materials. Testing materials for a purpose. Plan, investigate and evaluate waterproof properties of different materials.</p>	<p>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties</p> <p>Describe in simple terms how fossils are formed when things that have lived and are trapped within rock</p> <p>Recognise that soils are made from rocks and organic matter</p>	<p>Pupils will be taught to: compare and group materials together, according to whether they are solids, liquids or gases, observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C), identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature</p>
Key Vocabulary		Hard, soft, smooth, rough, bumpy, metal, plastic, wood, Paper, Water	Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth, flexible, tough, sturdy stiff, not bendy, opaque, strong, shiny, , waterproof, stretchy, material, transparent, dull, bendy, absorbent, glass, magnetic, elastic, fabric, metal, water, rock,	Hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics, Squashing, Bending, Twisting, Stretching Elastic, Foil Brick, cardboard, transparent, waterproof, insulate, keep warm, hard, rigid, strong, flexible, squash, stretch, twist, bend	Fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, Absorbent Rock,, marble, granite, sand, stone, slate, chalk, clay, texture, absorbed, permeable, pebble, characteristic, surface, organic, impermeable,, grains, crumbly, igneous, sedimentary, metamorphic,	air, ice, milk, lemonade, juice, metal, solid, liquid, gas, pour, flow, change shape, squash, heat, cool, grain/granular, temperature, thermometer, freeze, melt, boil, evaporate, condense, steam, smoke, sea water, properties, melting point, water, degrees, Celsius

<p>Enquiry and Investigation</p>	<p>Materials of bags</p>	<p>Discussions about money and the materials they're made from (plastic and metal) Investigation area 'feely tubs' with blindfolds - promoting describing words.</p> <p>Magnets investigation boxes - Children are able to move around the classroom to investigate what is magnetic. CIP time</p> <p>Aut 1 - Into the Woods Porridge - changes to materials, water to porridge and heated chocolate. <i>WS Observes closely and notices change</i> <i>Uses simple equipment</i> <i>Performs simple tests</i></p> <p>Sp 1 - People Who Help us Investigating and sorting rubbish - <i>WS sorting and matching things.</i> Investigating/sorting materials - waterproof, magnetic, float and sink - <i>WS using senses to observe and look closely/finding things that are similar and different</i></p>	<p>What material will be best for a house for the 3 pigs? Strength and stability test. What does a house need to be like? Children to investigate materials and make a prediction. Record the prediction in their book. Premade table to tick and cross <i>WS Performs simple tests and follows the teacher's instructions</i> <i>Observes closely</i> <i>Uses simple equipment</i> <i>Gathers and records simple data to help in answering a questions</i> HFL Task - Investigation: To test materials and find out if they float or sink. <i>WS Perform simple tests and follows the teachers' instructions.</i> <i>Uses simple equipment.</i> <i>Gathers and records simple data to help in answering questions.</i></p>	<p>HFL assessment task Waterproof test - which material should Teddy use to build a roof? Breaks down the investigation by naming the sections of enquiry i.e. method, conclusion, investigation, prediction, results. Prediction - rank the materials from most to least waterproof. Recording the conclusion and the investigation in books with headings etc.</p> <p><i>WS Performs simple tests and follows the teacher's instructions</i> <i>Observes closely</i> <i>Uses simple equipment</i> <i>Gathers and records simple data to help in answering a questions</i></p> <p>Use materials from investigation lesson; work in groups to make a water carrier. Allow 15 minutes only. Go onto playground to test how much water it will carry. Each group to race separately, use the same amount of water each group and measure what they have left after crossing the width of the playground. Group with most water left wins.</p>	<p>HFL Task - Investigate the permeability of soil. Make a whole class compost bin and observe changes over time <i>WS Makes accurate measurements using standard units</i> <i>Makes systematic and careful observations</i> <i>Presents findings</i></p> <p>Compare and group rocks based on their durability and permeability.</p> <p>Computing - Branching software. Creating yes and no questions to sort groups of objects by questions</p>	<p>Talk to the children about washing clothes at this time of year, 'The best way to dry clothes' Investigation into evaporation in different areas/conditions <i>WS- gathers and records data in a variety of ways to answer questions</i></p> <p>Follow steps to track the changes to the ice - measure when frozen - light the tea light - measure when liquid - continue to observe measure when gas. Record their observations along with temperatures in °C <i>WS Using a range of equipment i.e. data loggers</i> <i>Makes accurate measurements using standard units</i></p>
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WS- working scientifically