






<p><b>Programme of Study Statements</b>                  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> <ul style="list-style-type: none"> <li>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>					<p><b>Key Vocabulary</b>                  Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard</p> <p>Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid</p> <p>Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>
<p><b>Investigations and Skills for thinking like a Scientist</b></p> <div style="display: flex; justify-content: space-around; align-items: center;">      </div>					<p><b>Sticky Knowledge:</b></p> <p>Materials can be changed by physical force (twisting, bending, squashing and stretching)</p>
<p><b>Comparative Tests</b></p> <p><b>Which shapes make the strongest paper bridge?</b></p> <p><b>Which material would be best for the roof of the little pig's house?</b></p>	<p><b>Identify &amp; Classify</b></p> <p>Which materials will float and which will sink?</p> <p>Which materials will let electricity go through them, and which will not?</p> <p>Which materials are shiny and which are dull?</p>	<p><b>Observation over time</b></p> <p>How long do bubble bath bubbles last for?</p> <p>What will happen to our snowman?</p>	<p><b>Pattern seeking</b></p> <p>How do materials change with heat? <i>leave outside in sunshine/windowsill/radiator</i></p> <p>How does amount of water affect the strength of a kitchen towel?</p>	<p><b>Research</b></p> <p>How have the materials we use changed over time?</p> <p>How are plastics made?</p>	<p><b>Prior Knowledge:</b></p> <ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)</li> <li>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)</li> <li>Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)</li> </ul>
<ul style="list-style-type: none"> <li><b>Potential Evidence to support our Scientists (I can..):</b></li> </ul> <p>Can name an object, say what material it is made from, identify its properties and make a link between the properties and a particular use</p> <ul style="list-style-type: none"> <li>Can label a picture or diagram of an object made from different materials</li> <li>For a given object can identify what properties a suitable material needs to have</li> <li>Whilst changing the shape of an object can describe the action used</li> <li>Can use the words flexible and/or stretchy to describe materials that can be changed in shape and stiff and/or rigid for those that cannot</li> <li>Can recognise that a material may come in different forms which have different properties</li> </ul>					<p><b>Future Knowledge:</b></p> <ul style="list-style-type: none"> <li>Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks)</li> <li>Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets)</li> <li>Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials)</li> </ul> <p>Give reasons, based on evidence from comparative and fair tests, for</p>

<p><b>Big Question:</b>  <b>Can we change materials?</b>  <b>How do we choose the best material?</b></p>	<p>the particular uses of everyday materials, including metals, wood and plastic. (Y5 - Properties and changes of materials)</p>	
<p><b>Cultural Capital</b></p>		
<p><b>Visits and visitors</b>  We the Curious (Bristol)  Visit from Firemen.</p>	<p><b>Experiences and events</b></p>	<p><b>Key texts</b></p> <p><i>The Tin Forest</i>  (Helen Ward)  <i>Traction Man</i>  (Mini Grey)  <i>Three Little Pigs</i>  (Lesley Sims)</p>
<p><b>Community events and links</b></p>	<p><b>Global issues</b>  Plastic pollution  Single use plastic  Recycling</p>	<p><b>Famous people/ Key Scientists</b></p> <p>William Addis  (Toothbrush Inventor)  Charles Mackintosh  (Waterproof coat)  John McAdam  (roads)</p>
<p><b>Life Skills</b>  Curiosity  Team work  Creativity  Resilience  Making Links</p>	<p><b>Key places</b></p>	