

| Year 2 – Materials                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                                                                                            |  |
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| National Curriculum Objectives                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                            | Sticky Knowledge                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                         | Vocabulary                                                                                                                                                                                                                                                                                                                                                                    |                                                                            |                                                                                                                                                                            |  |
| <ul style="list-style-type: none"><li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li><li>Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li></ul> <p style="text-align: center;"><b>Non-Statutory</b></p> <ul style="list-style-type: none"><li>Pupils should become familiar with how some materials are used for more than one thing (metal for coins, cans, table legs) and how different materials are used for the same thing (spoon made from wood, metal or plastic).</li><li>Think about how properties of materials make them suitable/unsuitable for particular purposes. Children should think about unusual and creative uses for everyday materials.</li></ul> |                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>Materials can be changed by physical force (twisting, bending, squashing and stretching)</li></ul>                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                         | Waterproof, fabric, rubber, cars, rock, paper, cardboard, wood, metal, plastic, glass, brick, twisting, squashing, bending, matches, cans, spoons,                                                                                                                                                                                                                            |                                                                            |                                                                                                                                                                            |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                         | Key Scientists                                                                                                                                                                                                                                                                                                                                                                |                                                                            | Linked Texts                                                                                                                                                               |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                         | William Addis<br>(Toothbrush Inventor)<br><br>Charles Mackintosh<br>(Waterproof coat)<br><br>John McAdam (roads)                                                                                                                                                                                                                                                              |                                                                            | <b><i>The Tin Forest</i></b><br><i>(Helen Ward)</i><br><br><b><i>Traction Man</i></b><br><i>(Mini Grey)</i><br><br><b><i>Three Little Pigs</i></b><br><i>(Lesley Sims)</i> |  |
| Prior Learning                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                            | Key Question(s):                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                         | Future Learning                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                                                                                            |  |
| <p>In Year 1 children should:</p> <ul style="list-style-type: none"><li>Distinguish between and object and the material from which it is made.</li><li>Identify and name a variety of everyday materials, including wood, metal, plastic, glass, water and rock,</li><li>Describe the simple physical properties of a variety of everyday materials.</li><li>Compare and group together a variety of everyday materials based on their simple properties.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                            | <ul style="list-style-type: none"><li>What are natural materials?</li><li>What are human-made materials?</li><li>What does ‘recyclable’ mean?</li><li>Why is it important to reuse and recycle materials?</li><li>Can you change the shape of this material/object?</li><li>Why would builders choose to build a house with bricks?</li><li>Are all metals silver?</li><li>Are all fabrics soft?</li><li>Can a material change back to it’s original shape?</li></ul> |                                                                                                                                                                                                                                                                         | <p>In Year 3 children will:</p> <ul style="list-style-type: none"><li>Compare and group together different kinds of rocks based on their appearance and simple physical properties</li><li>Describe in simple terms how fossils are formed when things that have lived are trapped within rock</li><li>Recognise that soils are made from rocks and organic matter.</li></ul> |                                                                            |                                                                                                                                                                            |  |
| Teaching Ideas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                               |                                                                            |                                                                                                                                                                            |  |
| Comparative tests                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Identify & Classify                                                                                                                                                                                        | Observation over time                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Pattern Seeking                                                                                                                                                                                                                                                         | Research                                                                                                                                                                                                                                                                                                                                                                      | BIG Question – Assessment Opportunity                                      |                                                                                                                                                                            |  |
| <p>Which shapes make the strongest paper bridge?</p> <p>Which material will make the best umbrella?</p> <div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <p>Which materials will float and which will sink?</p> <p>Which materials are shiny and which are dull?</p> <div></div> | <p>How long do bubble bath bubbles last for?</p> <p>What will happen to our crazy foam snowman?</p> <div></div>                                                                                                                                                                                                                                                                    | <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> <div></div> | <p>How have the materials we use changed over time?</p> <p>How are plastics made?</p> <div></div>                                                                                                                                                                                        | <p>Can we change materials?</p> <p>How do we choose the best material?</p> |                                                                                                                                                                            |  |