Medium Term Plan

<table>
<tr><th colspan="2">Year 2- Uses of everyday materials</th></tr>
<tr><td colspan="2">

- 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.

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<tr><th>Prior learning</th><th>Future learning</th></tr>
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- Distinguish between an object and the material from which it is made. (Y1 - Everyday materials)
- Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 - Everyday materials)
- Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials)
- Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)

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- Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. (Y3 - Rocks)
- Notice that some forces need contact between two objects, but magnetic forces can act at a distance. (Y3 - Forces and magnets)
- 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)
- Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic. (Y5 - Properties and changes of materials)

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<tr><th colspan="2">What pupils need to know or do to be secure</th></tr>
<tr><th>Key learning</th><th>Possible evidence</th></tr>
<tr><td>All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task. For example, a water bottle is made of plastic because it is transparent allowing you to see the drink inside and waterproof so that it holds the water. When choosing what to make an object from, the properties needed are compared with the properties of the possible materials, identified through simple tests and classifying activities. A material can be suitable for different purposes and an object can be made of different materials.
Objects made of some materials can be changed in shape by bending, stretching, squashing and twisting. For example, clay can be shaped by squashing, stretching, rolling, pressing etc. This can be a property of the material or depend on how the material has been processed e.g. thickness.</td><td rowspan="3">

- 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
- Can label a picture or diagram of an object made from different materials
- For a given object can identify what properties a suitable material needs to have
- Whilst changing the shape of an object can describe the action used
- 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
- Can recognise that a material may come in different forms which have different properties

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<tr><th>Key vocabulary</th></tr>
<tr><td>Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard
Properties of materials – as for Year 1 plus opaque, transparent and translucent, reflective, non-reflective, flexible, rigid
Shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</td></tr>
<tr><th colspan="2">Common misconceptions</th></tr>
<tr><td colspan="2">Some children may think:

- only fabrics are materials
- only building materials are materials

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• only writing materials are materials • the word rock describes an object rather than a material • solid is another word for hard.	
Apply knowledge	
Activities	Possible evidence
• Classify materials. • Make suggestions about alternative materials for a purpose that are both suitable and unsuitable • Test the properties of materials for particular uses e.g. compare the stretchiness of fabrics to select the most appropriate for Elastigirl's costume, test materials for waterproofness to select the most appropriate for a rain hat	• Can sort materials using a range of properties • Can explain using the key properties why a material is suitable or not suitable for a purpose • Can begin to choose an appropriate method for testing a material for a particular property • Can use their test evidence to select appropriate material for a purpose e.g. Which material is the best for a rain hat?