<table>
<tr><th colspan="2">Year 2 – Uses of Materials (Materials and changes of state)</th></tr>
<tr><td>Links made with other subjects</td><td>DT – textiles kites</td></tr>
<tr><td>The BIG Question</td><td>How do we choose materials?</td></tr>
<tr><td>The BIG Outcome</td><td>Present results to one of the questions answered as part of a comparative test explaining why they chose on material and not another</td></tr>
<tr><td>Science objectives (link to NC)</td><td>- identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</td></tr>
<tr><td>Prior knowledge
What prior knowledge is needed for children to be successful in this unit?</td><td>Children already know:
EYFS – Understanding the world - Children know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. They make observations of animals and plants and explain why some things occur and talk about changes.
Yr 1 - Comparing and Identifying materials</td></tr>
<tr><td>Future learning
Consider the conceptual knowledge within a subject that pupils need for future learning not just the recall of facts but the importance of concepts</td><td>This unit gives prior knowledge to:
Yr 4 - Changes of State
Yr 5 - Separating mixtures, Types of Change and Materials</td></tr>
<tr><td>Science strands</td><td><u>Related Enquiry Questions</u>
<table><tr><td>Classifying</td></tr><tr><td>Based on the children’s own criteria, classify materials e.g. samples of wood, metal, plastic, etc</td></tr><tr><td>Observing over time</td></tr><tr><td>Not relevant</td></tr><tr><td>Pattern Seeking</td></tr><tr><td>Not relevant</td></tr><tr><td>Comparative testing</td></tr><tr><td>-Test materials for different uses (e.g. Which material can you use to make an aeroplane?
-Which fabric would you use for curtains?
-Which materials are best for Cinderella’s mop?
-Which fabric would you choose for Elastigirl’s costume?
-Which paper can be used for a book, fabrics for a child’s dungarees, materials for aeroplanes etc?)</td></tr><tr><td>Researching</td></tr><tr><td>Not relevant</td></tr></table></td></tr>
<tr><td>Vocabulary/ Glossary</td><td>Names of materials – wood, metal, plastic, glass, brick, rock, paper, cardboard

Properties of materials – Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through, opaque, transparent and translucent, reflective, non reflective, flexible, rigid
Shape, push/pushing, pull/puling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</td></tr>
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Science Scheme of Work

Knowledge (see italics for knowledge to remember)	*The knowledge that children will learn and remember:* 1. *All objects are made of one or more materials that are chosen specifically because they have suitable properties for the task.* 2. *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.* 3. *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.* 4. *A material can be suitable for different purposes and an object can be made of different materials.*
SEND expectations	1. Materials are chosen for something based on their properties 2. Objects can made from more than one material
Misconceptions	Some children may think: - only fabrics are materials - only building materials are materials -only writing materials are materials - the word rock describes an object rather than a material - solid is another word for hard.