

## Science Knowledge and Skills Overview – Year Two Uses of Everyday Materials

| National Curriculum Objectives   | Sticky Knowledge  | Prior and Future Learning   |   |  |
|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>Identify and compare the uses of a variety of everyday materials, including: wood, metal, plastic, glass, brick, paper and cardboard.</li> <li>Find out how the shape of solid objects made from some materials can be changed: squashing, bending, twisting and stretching.</li> </ul> | <ul style="list-style-type: none"> <li>All materials are versatile.</li> <li>The same object can be made from more than one material e.g. spoons.</li> <li>Wood can be used to make buildings and furniture.</li> <li>Most of the paper and cardboard we use comes from trees.</li> <li>Glass is a hard material that can be made into many shapes.</li> <li>Glass is usually transparent but can be translucent or coloured.</li> <li>When heated, metals can be shaped into anything, from a tiny paperclip to a huge aircraft.</li> <li>Petrol is used to make plastic and was invented over 100 years ago.</li> <li>Plastics are used to make many everyday objects e.g. toys, window frames.</li> <li>The shape of solid objects made from some materials can be changed using force.</li> <li>John McAdam invented the tar used to make roads.</li> </ul> | <p>In Y1 children should:</p> <ul style="list-style-type: none"> <li>Distinguish between an 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 on the basis of their simple properties.</li> </ul> <p>In Year 3 children will:</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.</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> |   |  |
| Links to NHFS core curriculum themes   | Vocabulary  | Key Questions   |   |  |
| <p><b>Sustainability</b> – reduce, reuse, re-cycle</p> <p><b>Aspirations</b> – e.g. glass blowing, architecture</p> <p><b>Equality</b> - comparing affordability</p>   | <p>Versatile, hard, transparent, translucent, petrol, fuel, squashing, bending, twisting, stretching</p>  | <p>Which rocks are the least crumbly?</p> <p>Which materials absorb the most water?</p> <p>Which material would be the strongest to use as to make a roof on a model?</p> <p>How long do plastics last for?</p> <p>What types of bricks can you see in our village?</p> <p>Which material makes the bounciest ball?</p> <p>What are aeroplane wheels made out of and why?</p>   |   |  |
| Key Scientists   | Big Question  |   |   |  |
| <p>John Dunlop (Inventor)</p> <p>Robert Gair (Inventor)</p>  | <p>What is the best material for each part of my model, and why?</p>  |   |   |  |
| <p>Are all objects made out of metal rigid?</p>   | <p>Can you group different types of paper and cardboard?</p>   | <p>How do different types of paper/card change over time when they are buried in the ground?</p>   | <p>How does water affect the strength of different types of paper or cardboard?</p>  | <p>How is corrugated cardboard made?</p>  |

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