

## Science Year 2 – Uses of Everyday Materials – Potions

<p><b>National Curriculum Objectives:</b></p> <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><b>Prior Objectives:</b></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><b>Lesson 1</b></p>  Skill - Identify  Knowledge - What is a description?	<p><b>Lesson 2</b></p>  Skill - Groups  Knowledge - Natural materials come as they are and man-made materials are altered.	<p><b>Lesson 3</b></p>  Skill - Describe  Knowledge - Opaque materials do not let any light through (cannot see through them).	<p><b>Lesson 4</b></p>  Skill - Investigate  Knowledge - Paper varies in strength.
<p><u>WALT: Identify different materials.</u></p> <p>WILF:            -Find different objects            -Describe the objects            -Identify the materials.</p> <p>Explain to children that they need some ingredients to make a potion.</p> <p>Can you find some round? Something hard?            Something soft? Something colourful?            Something you can eat? Etc.</p> <p>Ask the chn in their groups to re-cap on what powers their potion has, who it is for, and how it should be used.</p> <p><b>Recording:</b>            Take pictures.            Chn share the information on their magic potions to the rest of the class.</p>	<p><u>WALT: Name natural materials and how there are adapted for use.</u></p> <p>WILF:            - Name a material.            - Say whether it is man-made or natural.            - Think about how it has been changed.</p> <p>Talk partners - What is a prediction?            Look at a variety of manmade and naturally occurring materials.            (plastic, glass, polythene, twigs, cones, shells, acorns, sand, wood, water, clay)            Sort into two groups, with input from children.</p> <p>Explain that some natural materials can be used as they are. Explain how humans can also treat materials to make them more suitable for their uses.</p> <p><b>Recording:</b>            Children find objects around the class and decide if they are made from man-made or natural materials.</p>	<p><u>WALT: Describe the property of materials</u></p> <p>WILF:            - Identify the uses of different materials.            - Identify the appropriateness of different materials.</p> <p>In pairs, Chn explore one material. Describe what they can feel, see and smell (keeping their materials a secret).            Introduce the terms 'properties' and 'characteristics'.</p> <p>Explore a selection of resources (tracing paper, plastic cup, glue stick, mirror).            Introduce the terms opaque, translucent and transparent.</p> <p><b>Recording:</b>            Explore different materials, using their senses to identify the properties of it.            What is it made from?            What is it used for?            Why is this material a good choice?            Record their findings in a table.</p>	<p><u>WALT: Investigate which is the strongest paper.</u></p> <p>WILF:            - Make a prediction            - Experiment fairly</p> <p>Starter: Match objects to their materials (Pictures). Chn go around the classroom &amp; find their matching picture by asking questions.</p> <p>We need to find a strong material to wrap our potion in because our potion is magical.            (Sugar paper, backing paper, wrapping paper, printer paper, tracing paper, tissue paper)            Predict which will be strongest. How can we test this?</p> <p>Cut strips at the same length and width. Chn punch a hole in each sheet not too near the edge, &amp; another in the top of a freezer bag. Open up a paper clip to make hooks, hooking it into the holes &amp; attaching the bag to the end of the paper strip. Take it in turns to hold one end of the paper strip whilst someone carefully pops a 100g weight into the freezer bag, carefully add weights to the bag until the paper tears.</p> <p><b>Recording:</b>            Take pictures.</p>
<p><b>Assessment:</b> Use the vocabulary mat to assess the children's prior knowledge and use the mats again to assess what the children have learnt.</p> <p><b>Key Vocabulary:</b> Waterproof, fabric, rubber, rock, paper, cardboard, wood, metal, plastic, glass, brick, twisting, squashing, bending, matches, cans, spoons</p>			

 <p>weak</p>	 <p>group</p>	 <p>object</p>	 <p>sort</p>	 <p>stretchy</p>
 <p>shiny</p>	 <p>dull</p>	 <p>bendy</p>	 <p>waterproof</p>	 <p>strong</p>
 <p>sand</p>	 <p>hard</p>	 <p>soft</p>	 <p>rough</p>	 <p>smooth</p>
 <p>glass</p>	 <p>clay</p>	 <p>rock</p>	 <p>fabric</p>	 <p>paper</p>
 <p>boil</p>	 <p>magnetic</p>	 <p>metal</p>	 <p>plastic</p>	 <p>wood</p>
 <p>heat</p>	 <p>cool</p>	 <p>freeze</p>	 <p>melt</p>	 <p>squash</p>
 <p>change</p>	 <p>bake</p>	 <p>bend</p>	 <p>twist</p>	 <p>stretch</p>
 <p>materials</p>	 <p>natural</p>	 <p>man-made</p>	 <p>manufactured</p>	 <p>object</p>