

Subject: Science

Theme: Properties and changes of materials (Y5)

Knowledge	Skills	Vocabulary (Top 20)	Common misconceptions
<p>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. Give reasons for the particular uses of everyday materials, including metals, wood and plastic.</p> <p>Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes. Use knowledge of solids, liquids and gases to decide how mixtures might be separated. Explain that some changes result in the formation of new materials and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda.</p>	<p>Classify the based on hardness, solubility, transparency, conductivity and response to magnets.</p> <p>Observe rusting with uncoated nails in different liquids. (This can be achieved by removing coating with sandpaper).</p> <p>Observe the effects of burning or baking.</p> <p>Comparative and fair testing:</p> <ul style="list-style-type: none"> • Which material will produce a brighter bulb? • Which material is best for stopping ice melting? • Which material makes the best black-out curtains? • How does a container of salt water change over time? • What is the best method for separating materials? <p>Research new materials, how they are used and who invented them.</p>	<p>change gas liquid solid electrical state conductivity conductor dissolve evaporate filter insoluble insulator irreversible mixture reversible sieve soluble solution thermal</p>	<p>Some children may think:</p> <ul style="list-style-type: none"> • Thermal insulators keep cold in or out. • Thermal insulators warm things up. • Solids dissolved in liquids have vanished and so you cannot get them back. • Lit candles only melt, which is a reversible change.



Love



Friendship



Compassion



Community



Trust



Forgiveness

"Let all that you do be done in love." 1 COR 16:24

Do all the good you can.... John Wesley

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