

## Science - Medium term plan- Energy

Year group	Subject: Energy
<b>Prior learning- linked to National curriculum</b>	<p>Year 3: Pupils might work scientifically by: finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses.</p> <p>Year 4: Pupils should be taught to: compare and group materials together, according to whether they are solids, liquids or gases observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>
<b>Covid gaps</b>	
<b>Rationale</b>	<p>By the end of ks3: Energy changes and transfers: simple machines give bigger force but at the expense of smaller movement (and vice versa): product of force and displacement unchanged heating and thermal equilibrium: temperature difference between two objects leading to energy transfer from the hotter to the cooler one, through contact (conduction) or radiation; such transfers tending to reduce the temperature difference: use of insulators other processes that involve energy transfer: changing motion, dropping an object, completing an electrical circuit, stretching a spring, metabolism of food, burning fuels.</p> <p>Changes in systems: energy as a quantity that can be quantified and calculated; the total energy has the same value before and after a change comparing the starting with the final conditions of a system and describing increases and decreases in the amounts of energy associated with movements, temperatures, changes in positions in a field, in elastic distortions and in chemical compositions using physical processes and mechanisms, rather than energy, to explain the intermediate steps that bring about such changes.</p>

<b>Vocabulary:</b>	<b>Keywords</b> <a href="#">W Mod 17 glossary.docx</a>
<b>Cultural Capital:</b>	
<b>Key assessments- name the assessments</b>	<p>Big question (6 mark question) Mid point</p> <p><a href="#">W 17.5b question led lesson.docx</a></p> <p><a href="#">17.5b Marking Grid-Big Question in green</a></p> <p>A range of multiple choice, short answer and a long answer question.</p> <p><a href="#">Mod 17 test.pdf</a></p>
<b>What do children know/ can do now (EDSM)</b>	<p>Test marks-</p> <p><b>Emerging - 20%</b></p> <p><b>Developing - 40%</b></p> <p><b>Securing - 60%</b></p> <p><b>Mastered - 80%</b></p>
What <b>amendments</b> are you going to make following evaluation of this module?	

<b>Lesson</b>	<b>Lesson objective</b>	<b>Differentiation</b>	<b>Homework</b>
1		<p>SEND:</p> <ul style="list-style-type: none"> <li>• Sentence starters</li> <li>• Recall questions to consolidate understanding</li> </ul>	<b>Educake</b>

		<ul style="list-style-type: none"> <li>• Support sheet</li> <li>• Agreed symbols for '<i>read, write, listen</i>'</li> </ul> <p>Challenge:</p> <p>Hinge Questions:</p>	
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