

**Unit Overview – Energy**

**Target grade for tests: .....**



**You will learn about:**

- All the changes involved in the way energy is stored when a system changes.
- The amount of energy associated with a moving object, a stretched spring and an object raised above ground level.
- Renewable and non-renewable energy sources.

**You will be able to:**

- Evaluate methods and suggest possible improvements and further investigations.
- Explain patterns and trends in the use of energy resources.

<table border="1"> <tr> <td colspan="2"><b>Key learning points</b></td> <td></td> </tr> <tr> <td colspan="2">Potential energy</td> <td></td> </tr> <tr> <td colspan="2">Kinetic energy</td> <td></td> </tr> <tr> <td colspan="2">Work done</td> <td></td> </tr> <tr> <td colspan="2">Energy transfer</td> <td></td> </tr> <tr> <td colspan="2">Power</td> <td></td> </tr> <tr> <td colspan="2">Specific heat capacity and required practical</td> <td></td> </tr> <tr> <td colspan="2">Dissipation of energy and energy efficiency</td> <td></td> </tr> <tr> <td colspan="2">Energy resources and global supplies</td> <td></td> </tr> </table>					<b>Key learning points</b>			Potential energy			Kinetic energy			Work done			Energy transfer			Power			Specific heat capacity and required practical			Dissipation of energy and energy efficiency			Energy resources and global supplies			<p style="text-align: center;"><b>Key Words</b></p> <p><b>Energy</b>  <b>Joules</b>  <b>Kinetic</b>  <b>Gravitational potential</b>  <b>Chemical</b>  <b>Power</b>  <b>Watts</b>  <b>Closed system</b>  <b>Wasted energy</b>  <b>Useful energy</b>  <b>Efficiency</b>  <b>Dissipated</b>  <b>Renewable</b>  <b>Non-renewable</b>  <b>National Grid</b></p>	
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<p><b>Links to other subjects:</b></p> <p><b>SMSC</b></p> <p>Show that science has the ability to identify environmental issues arising from the use of energy resources but not always the power to deal with the issues because of political, social, ethical or economic considerations.</p> <p><b>Numeracy</b> Rearranging equation. Substituting numerical values into equations using appropriate units. Interpretation of graphs.</p> <p><b>Literacy</b> Describe observations in practical work.</p>																																	
Research	Note-making	Group work & discussion	Memorisation	Precision & accuracy	Independence	Reflection																											