

# Energy and Forces

	Level D	Presentation	Level E	Presentation	Level F	Presentation
Properties and Uses of Energy	<ul style="list-style-type: none"> <li>distinguish between heat and temperature</li> </ul>	Heating and Cooling	<ul style="list-style-type: none"> <li>describe the differences between the flow of heat by conduction and convection</li> </ul>	Heating and Cooling	<ul style="list-style-type: none"> <li>describe how energy is transferred by radiation</li> </ul>	Heating and Cooling
	<ul style="list-style-type: none"> <li>describe in simple terms how lenses work</li> </ul>	Light	<ul style="list-style-type: none"> <li>give examples of everyday uses of good and poor conductors of heat</li> </ul>	Heating and Cooling	<ul style="list-style-type: none"> <li>explain the effect of colour filters on white light</li> </ul>	Light
	<ul style="list-style-type: none"> <li>give examples of simple applications of lense</li> </ul>	Light	<ul style="list-style-type: none"> <li>explain the effect of a prism on white light</li> </ul>	Light	<ul style="list-style-type: none"> <li>describe the relationship between pitch and frequency and loudness and amplitude</li> </ul>	Sound
	<ul style="list-style-type: none"> <li>use the terms 'pitch' and 'volume' to describe sound</li> </ul>	Sound	<ul style="list-style-type: none"> <li>describe what happens when light passes through different materials</li> </ul>	Light	<ul style="list-style-type: none"> <li>describe the structure and function of an electromagnet</li> </ul>	Electromagnets
	<ul style="list-style-type: none"> <li>construct a series circuit following diagrams using conventional symbols</li> </ul>	Electronic Circuits	<ul style="list-style-type: none"> <li>explain what happens when sound passes through different materials</li> </ul>	Sound	<ul style="list-style-type: none"> <li>analyse the functions of everyday electronic systems in terms of input and output conditions</li> </ul>	Electronic Circuits
	<ul style="list-style-type: none"> <li>describe the effect of changing the number of components in a series circuit</li> </ul>	Electronic Circuits	<ul style="list-style-type: none"> <li>construct a parallel circuit following diagrams</li> </ul>	Electronic Circuits	<ul style="list-style-type: none"> <li>using pre-fabricated sub-systems, construct simple electronic systems to solve given problems</li> </ul>	Electronic Circuits
<ul style="list-style-type: none"> <li>use the terms 'voltage', 'current' and 'resistance' in the context of simple circuits</li> </ul>			Electronic Circuits			

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Conversion and Transfer of Energy	<ul style="list-style-type: none"> <li>• give some examples of energy conversions involved in the generation of electricity</li> </ul>	Electricity and Energy Resources	<ul style="list-style-type: none"> <li>• describe some examples of the interconversion of potential and kinetic energy</li> </ul>	Energy and Energy Conversion	<ul style="list-style-type: none"> <li>• distinguish between gravitational potential and chemical potential energy</li> </ul>	Energy and Energy Conversion
	<ul style="list-style-type: none"> <li>• describe how electrical energy is distributed to our homes</li> </ul>	Electricity and Energy Resources	<ul style="list-style-type: none"> <li>• give some examples of chemical energy changes</li> </ul>	Energy and Energy Conversion		
	<ul style="list-style-type: none"> <li>• name some energy resources</li> </ul>	Electricity and Energy Resources	<ul style="list-style-type: none"> <li>• explain the difference between renewable and non-renewable energy resources</li> </ul>	Electricity and Energy Resources		
Forces and their Effects	<ul style="list-style-type: none"> <li>• give examples of streamlining and explain how this lowers resistance</li> </ul>	Forces	<ul style="list-style-type: none"> <li>• describe the effects of balanced and unbalanced forces</li> </ul>	Forces	<ul style="list-style-type: none"> <li>• distinguish between mass and weight</li> </ul>	Gravity, Mass and Weight
	<ul style="list-style-type: none"> <li>• describe the relationship between the Earth's gravity and the weight of an object</li> </ul>	Gravity, Mass and Weight	<ul style="list-style-type: none"> <li>• explain how gravity on other planets and the Moon affects the weight of an object</li> </ul>	Gravity, Mass and Weight	<ul style="list-style-type: none"> <li>• name the newton as the unit of force and explain its relationship to mass</li> </ul>	Gravity, Mass and Weight
					<ul style="list-style-type: none"> <li>• describe the relationship between force, area and pressure</li> </ul>	Forces