

Lesson	Improving	Secure	Advanced and Extending
P2 2.1 Food and fuels	I can identify energy values for food and fuels. <input type="checkbox"/>	I can compare the energy values of food and fuels. <input type="checkbox"/>	I can calculate energy requirements for various situations, considering diet and exercise. <input type="checkbox"/>
	I can describe energy requirements in different situations. <input type="checkbox"/>	I can compare the energy in food and fuels with the energy needed for different activities. <input type="checkbox"/>	I can suggest different foods needed in various situations, considering diet and exercise. <input type="checkbox"/>
P2 2.2 Energy adds up	I can state the definition of the conservation of energy. <input type="checkbox"/>	I can describe energy before and after a change. <input type="checkbox"/>	I can account for energy dissipation during transfers. <input type="checkbox"/>
	I can state how energy is transferred. <input type="checkbox"/>	I can explain what brings about transfers in energy. <input type="checkbox"/>	I can compare energy transfers to energy conservation. <input type="checkbox"/>
P2 2.3 Energy and temperature	I can state how energy and temperature are measured. <input type="checkbox"/>	I can state the difference between energy and temperature. <input type="checkbox"/>	I can give an example to show that energy and temperature are different. <input type="checkbox"/>
	I can describe how energy is transferred through solids, liquids, and in air. <input type="checkbox"/>	I can describe what happens when you heat up solids, liquids, and gases. <input type="checkbox"/>	I can explain, in terms of particles, how energy is transferred. <input type="checkbox"/>
	I can state what is meant by the term 'equilibrium'. <input type="checkbox"/>	I can explain what is meant by equilibrium. <input type="checkbox"/>	I can give examples of equilibrium. <input type="checkbox"/>
P2 2.4 Energy transfer: particles	I can describe simply what happens in conduction and convection. <input type="checkbox"/>	I can describe how energy is transferred by particles in conduction and convection. <input type="checkbox"/>	I can explain in detail the processes involved during heat transfers. <input type="checkbox"/>
	I can state that insulators reduce heat loss compared to conductors. <input type="checkbox"/>	I can describe how an insulator can reduce energy transfer. <input type="checkbox"/>	I can explain why certain materials are good insulators. <input type="checkbox"/>

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P2 2.5 Energy transfer: radiation	I can state some sources of infrared radiation. <input type="checkbox"/>	I can describe some sources of infrared radiation. <input type="checkbox"/>	I can explain how thermal equilibrium can be established. <input type="checkbox"/>
	I can state some properties of infrared radiation. <input type="checkbox"/>	I can explain how energy is transferred by radiation. <input type="checkbox"/>	I can explain why some objects radiate more energy. <input type="checkbox"/>
P2 2.6 Energy resources	I can name renewable and non-renewable resources. <input type="checkbox"/>	I can describe the difference between a renewable and a non-renewable energy resource. <input type="checkbox"/>	I can compare the advantages and disadvantages of using renewable and non-renewable energy resources. <input type="checkbox"/>
	I can state one advantage and one disadvantage of fossil fuels. <input type="checkbox"/>	I can describe how electricity is generated in a power station. <input type="checkbox"/>	I can explain how a range of resources generate electricity, drawing on scientific concepts. <input type="checkbox"/>
P2 2.7 Energy and power	I can state the definitions of energy and power. <input type="checkbox"/>	I can explain the difference between energy and power. <input type="checkbox"/>	I can compare the power consumption of different activities. <input type="checkbox"/>
	I can state that power, fuel used, and cost are linked. <input type="checkbox"/>	I can describe the link between power, fuel use, and cost of using domestic appliances. <input type="checkbox"/>	I can calculate and compare energy costs in different scenarios. <input type="checkbox"/>
P2 2.8 Work, energy, and machines	I can state how work is calculated. <input type="checkbox"/>	I can calculate work done. <input type="checkbox"/>	I can compare work done in different scenarios and by different machines. <input type="checkbox"/>
	I can state machines conserve energy. <input type="checkbox"/>	I can apply the conservation of energy to simple machines. <input type="checkbox"/>	I can explain how conservation of energy applies in one example. <input type="checkbox"/>