


















**CP3 Conservation of Energy****CP3a Energy stores and transfers**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 6 <sup>th</sup>	Explain, using examples, that energy is conserved.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Give examples of energy being moved between different stores.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Interpret diagrams that represent energy transfers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Represent energy transfers using diagrams.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe what happens to wasted energy in energy transfers.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>






**CP3b Energy efficiency**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 8 <sup>th</sup>	Explain some ways in which energy is transferred wastefully by mechanical processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain some ways of reducing unwanted energy transfers in mechanical processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Define what efficiency means.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	 Explain how efficiency can be increased.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 9 <sup>th</sup>	Recall and use the formula for calculating energy efficiency.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>





**CP3c Supplying electricity**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 <sup>th</sup>	Describe what is meant by electrical resistance.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 8 <sup>th</sup>	Explain how energy can be wasted in electrical appliances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Describe how the National Grid transmits electricity around the country.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain why step-up and step-down transformers are used in the National Grid.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	 Explain how wasteful energy transfers can be reduced in electrical appliances.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>






**CP3d Keeping warm**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 5 <sup>th</sup>	Describe the ways in which energy can be transferred by heating.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Describe ways of reducing unwanted energy transfers using thermal insulation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain how different ways of reducing energy transfer by heating work.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Define the meaning of thermal conductivity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Describe the effects of the thickness and thermal conductivity of the walls of a building on its rate of cooling.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CP3e Non-renewable resources**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 4 <sup>th</sup>	List the non-renewable energy resources in use today.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Describe the advantages and disadvantages of non-renewable energy resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Compare the advantages and disadvantages of non-renewable energy resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Explain how the use of non-renewable energy resources is changing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**CP3f Renewable resources**

Step	Learning outcome	Had a look	Nearly there	Nailed it!
 4 <sup>th</sup>	List the renewable energy resources in use today.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Describe the source of energy for different renewable resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 5 <sup>th</sup>	Describe the ways in which the different energy resources are used.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 7 <sup>th</sup>	Explain why we cannot use only renewable energy resources.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
 6 <sup>th</sup>	Explain how the use of renewable energy resources is changing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>