CP3 Conservation of Energy

CP3a Energy stores and transfers

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Explain, using examples, that energy is conserved.	☐	☐	☐
	Give examples of energy being moved between different stores.	☐	☐	☐
	Interpret diagrams that represent energy transfers.	☐	☐	☐
	Represent energy transfers using diagrams.	☐	☐	☐
	Describe what happens to wasted energy in energy transfers.	☐	☐	☐

CP3b Energy efficiency

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Explain some ways in which energy is transferred wastefully by mechanical processes.	☐	☐	☐
	Explain some ways of reducing unwanted energy transfers in mechanical processes.	☐	☐	☐
	Define what efficiency means.	☐	☐	☐
	**H** Explain how efficiency can be increased.	☐	☐	☐
	Recall and use the formula for calculating energy efficiency.	☐	☐	☐

CP3c Keeping warm

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Describe the ways in which energy can be transferred by heating.	☐	☐	☐
	Describe ways of reducing unwanted energy transfers using thermal insulation.	☐	☐	☐
	Explain how different ways of reducing energy transfer by heating work.	☐	☐	☐
	Define the meaning of thermal conductivity.	☐	☐	☐
	Describe the effects of the thickness and thermal conductivity of the walls of a building on its rate of cooling.	☐	☐	☐

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CP3d Stored energies

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	Describe how different factors affect the gravitational potential energy stored in an object.	☐	☐	☐
	Recall and use the equation for gravitational potential energy.	☐	☐	☐
	Describe how different factors affect the kinetic energy stored in an object.	☐	☐	☐
	Recall and use the equation for kinetic energy.	☐	☐	☐

CP3e Non-renewable resources

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	List the non-renewable energy resources in use today.	☐	☐	☐
	Describe the advantages and disadvantages of non-renewable energy resources.	☐	☐	☐
	Compare the advantages and disadvantages of non-renewable energy resources.	☐	☐	☐
	Explain how the use of non-renewable energy resources is changing.	☐	☐	☐

CP3f Renewable resources

Step	Learning outcome	Had a look	Nearly there	Nailed it!
	List the renewable energy resources in use today.	☐	☐	☐
	Describe the source of energy for different renewable resources.	☐	☐	☐
	Describe the ways in which the different energy resources are used.	☐	☐	☐
	Explain why we cannot use only renewable energy resources.	☐	☐	☐
	Explain how the use of renewable energy resources is changing.	☐	☐	☐

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