

AQA Chemistry

GCSE Student Checklist

C7 Energy changes

Name

Class

Date

Lesson	Aiming for 4		Aiming for 6		Aiming for 8
C7.1 Exothermic and endothermic reactions	I can define exothermic and endothermic reactions.	<input type="checkbox"/>	I can describe examples of exothermic and endothermic reactions.	<input type="checkbox"/>	I can explain a chemical reaction in terms of energy transfer.
	I can state that energy is conserved in a chemical reaction.	<input type="checkbox"/>	I can explain, using observations from calorimetry, how to classify a reaction as exothermic or endothermic.	<input type="checkbox"/>	I can plan, carry out, and evaluate the errors in a calorimetry investigation.
	I can safely complete a calorimetry experiment for a reaction that takes place in solution.	<input type="checkbox"/>	I can explain in detail how to carry out a calorimetry experiment.	<input type="checkbox"/>	
C7.2 Using energy transfers from reactions	I can state a use of an exothermic reaction and an endothermic reaction.	<input type="checkbox"/>	I can explain how an energy change from a chemical reaction can be used.	<input type="checkbox"/>	I can suggest a chemical reaction for a specific purpose based on the energy change for the reaction.
	I can write word equations for familiar reactions.	<input type="checkbox"/>	I can write balanced symbol equations for familiar reactions.	<input type="checkbox"/>	I can evaluate in detail the uses of exothermic and endothermic reactions.
C7.3 Reaction profiles	I can define activation energy.	<input type="checkbox"/>	I can label activation energy on a reaction profile diagram.	<input type="checkbox"/>	I can explain why chemical reactions need activation energy to start them.
	I can sketch a generic reaction profile diagram for an exothermic or endothermic reaction.	<input type="checkbox"/>	I can generate a specific reaction profile diagram for a given chemical reaction when its energy change is also supplied.	<input type="checkbox"/>	I can use the particle model to explain how a chemical reaction occurs.
			I can identify bonds broken in reactants and new bonds made in products of a reaction.	<input type="checkbox"/>	I can explain energy change in terms of the balance between bond making and bond breaking.

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C7.4 Bond energy calculations		I can explain, using the particle model, how reactants become products in a chemical reaction.	<input type="checkbox"/>	I can calculate the energy needed to break the reactant bonds and the energy released when the product bonds are made.	<input type="checkbox"/>
		I can explain why bond breaking is endothermic and bond making is exothermic.	<input type="checkbox"/>	I can calculate the energy change for a reaction, including the correct unit.	<input type="checkbox"/>
		I can define bond energy and identify all the bonds that break and are made in a chemical reaction.	<input type="checkbox"/>	I can explain in terms of bond energies how a reaction is either exothermic or endothermic.	<input type="checkbox"/>