

Name _____ Class _____ Date _____

Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C6.1 Introduction to electrolysis	I can define electrolysis.	<input type="checkbox"/>	I can describe electrolysis in terms of movement of ions.	<input type="checkbox"/>	I can explain why electrolysis can only occur when an ionic compound is molten or in aqueous solution.	<input type="checkbox"/>
	I can write a word equation to describe the electrolysis of a molten ionic compound.	<input type="checkbox"/>	I can write a balanced symbol equation including state symbols for the overall electrolysis of a molten ionic compound.	<input type="checkbox"/>	I can describe electrolysis with half equations at the electrodes.	<input type="checkbox"/>
			I can predict the products at each electrode for the electrolysis of a molten ionic compound.	<input type="checkbox"/>	I can explain the classification of the reactions at each electrode as oxidation or reduction.	<input type="checkbox"/>
C6.2 Changes at the electrodes	I can state that oxygen can be produced at the anode when some solutions are electrolysed.	<input type="checkbox"/>	I can describe electrolysis of solutions in terms of movement of ions.	<input type="checkbox"/>	I can explain how hydrogen ions and hydroxide ions can be present in solutions, including a balanced symbol equation with state symbols, for the reversible reaction in which water ionises.	<input type="checkbox"/>
	I can state that hydrogen can be produced at the cathode when some solutions are electrolysed.	<input type="checkbox"/>	I can write a balanced symbol equation including state symbols for the overall electrolysis of a solution.	<input type="checkbox"/>	I can describe electrolysis with half equations at the electrodes.	<input type="checkbox"/>
	I can write a word equation to describe electrolysis of a solution.	<input type="checkbox"/>	I can predict the products at each electrode for the electrolysis of a molten ionic compound or its solution.	<input type="checkbox"/>	I can explain the classification of reactions at the electrodes as oxidation or reduction.	<input type="checkbox"/>

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Lesson	Aiming for 4		Aiming for 6		Aiming for 8	
C6.3 Extraction of aluminium	I can state that aluminium can be extracted from aluminium oxide using electrolysis.	<input type="checkbox"/>	I can describe the electrolysis of aluminium oxide.	<input type="checkbox"/>	I can explain why electrolysis is used to extract aluminium from compounds.	<input type="checkbox"/>
	I can write a word equation to describe the electrolysis of aluminium oxide.	<input type="checkbox"/>	I can explain why electrolysis is an expensive metal extraction method and illustrate this with the extraction of aluminium.	<input type="checkbox"/>	I can describe electrolysis with half equations at the electrodes.	<input type="checkbox"/>
			I can explain why cryolite is added to aluminium oxide in the industrial extraction of aluminium.	<input type="checkbox"/>	I can explain the classification of the reactions at each electrode as oxidation or reduction.	<input type="checkbox"/>
C6.4 Electrolysis of aqueous solutions	I can state the products of the electrolysis of brine and a use for each.	<input type="checkbox"/>	I can describe how to electrolyse brine in terms of ions moving.	<input type="checkbox"/>	I can explain the electrolysis of brine using half equations, classifying reactions at the electrode as oxidation or reduction.	<input type="checkbox"/>
	I can safely electrolyse a solution, with guidance provided.	<input type="checkbox"/>	I can predict the products of electrolysis of a solution.	<input type="checkbox"/>	I can evaluate in detail an investigation we have planned and carried out, commenting on our methodology and quality of the data collected.	<input type="checkbox"/>
			I can plan and carry out an electrolysis investigation.	<input type="checkbox"/>	I can explain the classification of the reactions at each electrode as oxidation or reduction.	<input type="checkbox"/>