

# AQA Chemistry

## GCSE Student checklist

C5

Name ..... Class ..... Date .....

Lesson	Target 4		Target 6		Target 8	
C5.1 The reactivity series	I can list the order of common metals in the reactivity series.	<input type="checkbox"/>	I can describe oxidation and reduction in terms of gain or loss of oxygen.	<input type="checkbox"/>	I can justify uses of metals in the reactivity series based on their chemical reactivity.	<input type="checkbox"/>
	I can use general equations to write specific word equations for metals listed in the reactivity series reacting with oxygen, water, and acid.	<input type="checkbox"/>	I can write word equations for the metals listed in the reactivity series reacting with oxygen, water, and acid and balance given symbol equations.	<input type="checkbox"/>	I can write balanced symbol equations, with state symbols, for the metals listed in the reactivity series reacting with oxygen, water, and acid.	<input type="checkbox"/>
	I can safely make and record observations.	<input type="checkbox"/>	I can predict observations for the metals listed in the reactivity series reacting with oxygen, water, and acid.	<input type="checkbox"/>	I can evaluate in detail the investigation of metals plus acid, assessing the control of variables and the validity of conclusions drawn from the data collected.	<input type="checkbox"/>
C5.2 Displacement reactions	I can recall a definition of a displacement reaction.	<input type="checkbox"/>	I can explain why a displacement reaction occurs.	<input type="checkbox"/>	<b>H</b> I can describe displacement reactions using an ionic equation.	<input type="checkbox"/>
	I can use the reactivity series to determine whether a reaction between a metal and a different metal salt would happen or not.	<input type="checkbox"/>	I can write word equations and straightforward balanced symbol equations for displacement reactions.	<input type="checkbox"/>	I can write balanced symbol equations, with state symbols, for displacement reactions.	<input type="checkbox"/>
	I can safely make and record observations.	<input type="checkbox"/>	I can predict observations for the metals listed in the reactivity series reacting with a different metal salt.	<input type="checkbox"/>	<b>H</b> I can determine and explain which species is oxidised and which species (metal atom or ion) is reduced in a displacement reaction in terms of electron transfer.	<input type="checkbox"/>

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C5.3 Extracting metals	I can define oxidation and reduction in terms of oxygen.	<input type="checkbox"/>	I can identify species that are being oxidised and reduced in a chemical reaction.	<input type="checkbox"/>	I can explain how carbon or hydrogen can be used to reduce an ore.	<input type="checkbox"/>
	I can describe how metals can be extracted.	<input type="checkbox"/>	I can explain why some metals are found uncombined in the Earth's crust.	<input type="checkbox"/>	I can evaluate the extraction process to obtain a metal from its ore.	<input type="checkbox"/>
C5.4 Salts from metals	I can recall a definition of a salt.	<input type="checkbox"/>	I can describe how to make a salt by reacting a metal with an acid.	<input type="checkbox"/>	<b>H</b> I can explain the reaction between a metal and an acid.	<input type="checkbox"/>
	I can name a salt formed between a metal and sulfuric acid or hydrochloric acid.	<input type="checkbox"/>	I can write a balanced symbol equation to describe a reaction between a metal and sulfuric acid or hydrochloric acid.	<input type="checkbox"/>	<b>H</b> I can write ionic and half equations, including state symbols, to describe a reaction between a metal and sulfuric acid or hydrochloric acid.	<input type="checkbox"/>
	I can recall a general equation for a metal reacting with an acid and use it to write specific word equations.	<input type="checkbox"/>	I can identify the formula of the salt produced from the reaction between an acid and a metal.	<input type="checkbox"/>	<b>H</b> I can identify and explain in detail which species is oxidised and which is reduced in a reaction.	<input type="checkbox"/>
C5.5 Salts from insoluble bases	I can safely prepare a pure, dry sample of a soluble salt from an insoluble base and a dilute acid.	<input type="checkbox"/>	I can describe a method to prepare a pure, dry sample of a soluble salt from an insoluble substance and a dilute acid.	<input type="checkbox"/>	<b>H</b> I can explain the reaction between a metal oxide or metal hydroxide and an acid, including an ionic equation.	<input type="checkbox"/>
	I can name a salt formed between a metal hydroxide or metal oxide and sulfuric acid or hydrochloric acid.	<input type="checkbox"/>	I can write a balanced symbol equation to describe a reaction between a metal hydroxide or oxide and sulfuric acid or hydrochloric acid.	<input type="checkbox"/>	I can generate the formulae of salts given the names of the metal or base and the acid.	<input type="checkbox"/>
	I can recall a general equation for a base reacting with an acid and use it to write specific word equations.	<input type="checkbox"/>	I can explain why the reaction between a base and a dilute acid is a neutralisation reaction.	<input type="checkbox"/>	I can explain how alkalis are a subgroup of bases.	<input type="checkbox"/>

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C5.6 Making more salts	I can safely make a salt by reacting a metal carbonate with a dilute acid. <input type="checkbox"/>	I can describe how to make a dry sample of a salt from reacting a metal carbonate or an alkali with a dilute acid. <input type="checkbox"/>	I can explain the reaction between ammonia and dilute acids to produce salts and the agricultural importance of the salts. <input type="checkbox"/>
	I can write a general word equation for metal carbonates and alkalis reacting with dilute acids and use this to make specific word equations. <input type="checkbox"/>	I can write balanced symbol equations for neutralisation reactions. <input type="checkbox"/>	I can describe neutralisation using ionic equations, including the ionic equation for a carbonate plus an acid. <input type="checkbox"/>
C5.7 Neutralisation and the pH scale	I can safely use universal indicator to classify as acidic or alkaline. <input type="checkbox"/>	I can describe how universal indicator can be used to classify a chemical as acidic or alkaline. <input type="checkbox"/>	I can evaluate how universal indicator or a data logger can be used to determine the approximate pH of a solution. <input type="checkbox"/>
	I can describe the pH scale. <input type="checkbox"/>	I can describe how solutions can be acidic or alkali. <input type="checkbox"/>	I can use ionic equations to explain how solutions can be acidic or alkali. <input type="checkbox"/>
	I can recall an example of an alkali, neutral, base, and acidic chemical. <input type="checkbox"/>	I can describe the relationship between alkalis and bases. <input type="checkbox"/>	I can explain how the pH of a solution changes as acid or alkali is added. <input type="checkbox"/>
C5.8 Electronic structures Ⓜ		I can recall examples of strong and weak acids. <input type="checkbox"/>	I can explain the difference between concentration and strong or weak in terms of acids and alkalis. <input type="checkbox"/>
		I can describe how an acid or alkali can be concentrated or dilute. <input type="checkbox"/>	I can use ionic equations to explain how acids can be strong or weak. <input type="checkbox"/>
		I can describe how an acid or alkali can be weak or strong. <input type="checkbox"/>	I can quantitatively explain how the concentration of hydrogen ions relates to the pH number. <input type="checkbox"/>