Year 10 Chemistry SoW and HW plan Autumn 2

Chapter and Topic	Lesson	Outcomes	Suggested activities/resources
C5 Chemical changes 1	The reactivity series	• Describe the reactions of common metals with water and dilute acid. • Explain reduction and oxidation in terms of loss or gain of oxygen. • Predict reactions of unfamiliar metals given information about their relative reactivity,	Learn the reactivity series of metals
2	Displacement reactions	• Describe the position of hydrogen and carbon in the reactivity series and their displacement reactions. • Explain how the reactivity of metals is related to the tendency of the metal to form its positive ion. • Deduce ionic equations for displacement reactions. (H) • Identify which species is being oxidised or reduced from a symbol equation. (H)	Trilogy: Complete the worksheet of example displacement reactions Separates: Complete the worksheet of ionic equations
3	Extracting metals	• Evaluate the process used to extract different metals. • Identify substances that are oxidised or reduced in terms of gain or loss of oxygen.	
4	Salts from metals	• Describe the reactions of magnesium, zinc and iron with hydrochloric and sulfuric acids. • Explain how to collect salts formed.	Given 10 salts, name the reactants which could have been used to produce those salts

		• Explain why these reaction are classed as redox reactions. (H) • Identify which species is oxidised and reduced in chemical equations, in terms of electron transfer. (H)	
5	Salts from insoluble bases	• Describe the reaction between an acid and a base. • Predict products from given reactants. • Deduce the formula of salts from the formula of common ions.	
6	Making a copper salt required practical.	• Explain how to prepare pure, dry crystals of the salts formed in neutralisation reactions between acids and insoluble bases.	Learn the method to produce copper sulphate.
7	Making more salts + required practical	• Describe the reactions of acids with alkalis. • Describe the reactions of acids with carbonates. • Explain how to make pure, dry samples of salts from a metal carbonate.	
8	Neutralisation and the pH scale	• Describe how to measure the approximate pH of a solution • Explain why solutions are acidic or alkaline. • Explain how to investigate pH changes when a strong acid neutralises a strong alkali.	
9 (Higher only)	Strong and weak acids	• Describe the difference between a strong and weak acid.	

		• Explain how the concentration of hydrogen ions affect the numerical value of pH.	