

Year 10 - AQA GCSE Chemistry 8462

Timing	Unit Title	Key Question	Knowledge	Assessing understanding
Autumn Term 1	Chemical Calculation Chapter 4	How do we know the amount of product we can make?	<ul style="list-style-type: none"> • Masses and moles • Using moles to balance equations • Reacting masses • Gas volumes • Limiting reagents • % yield • Atom economy 	<p>How understanding is assessed</p> <p>Students will be assessed on their ability to:</p> <ul style="list-style-type: none"> • Recall the knowledge covered • Explain chemical phenomena • Interpret graphical and experimental data • Plan and describe valid experiments • Evaluate experimental procedures and results
Autumn Term 2	Structure and Bonding Chapter 3	How do the elements combine in chemical reactions?	<ul style="list-style-type: none"> • Structure and properties of ionic compounds • Structure and properties of covalent compounds • Structure and properties of metals • Giant covalent structures – fullerenes • Nanoparticles 	<ul style="list-style-type: none"> • Description • Explanation • Evaluation • Comparison • Planning and carrying out investigations <p>Assessment point information</p> <p>Based on:</p> <ul style="list-style-type: none"> • Written test on structure and bonding • Calculations test • Teacher continuous assessment

Spring Term 1	<p>Chapter 5 Chemical Changes</p> <p>Chapter 4 Titration Calculations</p>	<p>What are the most important types of chemical reaction?</p> <p>How can we analyse the concentration of a solution?</p> <p>How do we use empirical data to calculate concentration?</p>	<ul style="list-style-type: none"> ● Reactivity series of metals ● Displacement reactions ● Redox ● Making salts from metals ● Making salts from bases ● Acids and the pH scales ● Strong and weak acids ● Neutralisation reactions of acids and alkalis ● Solution calculations ● Titration ● Titration calculations 	<p>How understanding is assessed Students will be assessed on their ability to:</p> <ul style="list-style-type: none"> ● Recall the knowledge covered ● Explain chemical phenomena ● Interpret graphical and experimental data ● Plan and describe valid experiments ● Evaluate experimental procedures and results ● Description ● Explanation ● Evaluation ● Comparison ● Planning and carrying out investigations ● Chemical calculations <p>Assessment point information</p> <p>Based on:</p> <ul style="list-style-type: none"> ● Written test on chemical changes and redox ● Required Practical 1 – Making a salt from an insoluble base. ● Required Practical 2 – Titration
Spring Term 2	<p>Electrolysis</p> <p>Chapter 6</p>	<p>How can compounds be split up using electricity?</p>	<ul style="list-style-type: none"> ● Electrolysis ● Half equations ● Extraction of aluminium ● Electrolysis of brine 	

Summer Term	Review and end of year exam	How can we apply the chemical ideas we have learned so far?	<ul style="list-style-type: none"> ● Revision and exam paper practice 	<p>How understanding is assessed Students will be assessed on their ability to:</p> <ul style="list-style-type: none"> ● Recall the knowledge covered ● Explain chemical phenomena ● Interpret graphical and experimental data ● Plan and describe valid experiments ● Evaluate experimental procedures and results <ul style="list-style-type: none"> ● Description ● Explanation ● Evaluation ● Comparison ● Planning and carrying out investigations ● Chemical calculations <p>Assessment point information</p> <p>Based on:</p> <ul style="list-style-type: none"> ● End of year exam
	<p>Energy Chapter 7</p> <p>Periodic Table Chapter 2</p>	<p>Why do chemical reactions cause temperature changes?</p> <p>How does the Periodic Table help us predict trends in reactivity?</p>	<ul style="list-style-type: none"> ● Exothermic and endothermic reactions ● Energy profiles ● Using energy changes ● Bond energy calculations ● Cells, batteries and fuel cells <ul style="list-style-type: none"> ● Using the Periodic Table ● Group 1 – reactions and properties ● Group 7 – reactions and properties ● Explaining trends. ● Transition Metals 	