Year 11 Chemistry Curriculum Overview – Term 3

Welcome to the Year 11 Chemistry curriculum overview. This term, both Combined and Triple Science students will focus on revision to prepare for their upcoming Chemistry GCSE exams. The revision will include topic reviews, exam practice, and a focus on required practicals.

Combined and Triple Science: GCSE Exam Revision

Topic Overviews

Students will revise the key topics covered throughout the Chemistry course:

1. **Atomic Structure and the Periodic Table**: Structure of atoms, the development of the periodic table, and the properties of elements.
2. **Bonding, Structure, and Properties of Matter**: Ionic, covalent, and metallic bonding, properties of different materials, and the structure of solids, liquids, and gases.
3. **Quantitative Chemistry**: Calculating moles, concentrations, and using the mole concept in chemical reactions.
4. **Chemical Changes**: Acids, bases, neutralisation, reactivity series, and the extraction of metals.
5. **Energy Changes in Reactions**: Exothermic and endothermic reactions, energy profiles, and bond energy calculations.
6. **The Rate and Extent of Chemical Reactions**: Factors affecting reaction rates, equilibrium, and the factors influencing reversible reactions.

For **Triple Science only**, additional topics include **Organic Chemistry** (e.g., alkanes, alkenes, and polymers) and **Chemical Analysis** (e.g., chromatography and spectroscopy).

Exam Practice and Techniques

- **Practice Questions**: Students will practice answering a variety of exam questions, including multiple-choice, short answer, and extended response questions.
- **Time Management**: Guidance on managing time during exams and allocating appropriate time to each section.
- **Command Words**: Students will learn how to approach different types of questions (e.g., "explain," "describe," "evaluate").
- **Past Papers**: Reviewing past GCSE papers to familiarize students with the exam format and question style.

Reviewing the Required Practicals

Students will revise the key required practicals from the course, including:

- **Atomic Structure**: Investigating the properties of ions and using the periodic table.
- **Quantitative Chemistry**: Titrations to determine the concentration of a solution.
- **Chemical Reactions**: Investigating rates of reaction, including the effects of temperature and concentration.
- **Energy Changes**: Measuring temperature changes in neutralisation reactions.

Students will practice analyzing data from these experiments and understand how to present their findings.

This term is focused on ensuring all students are well-prepared for their upcoming Chemistry GCSE exams, with strong support in both content and exam techniques.