TRIPLE Summer Assessment

Revision List

Your Summer exam in Chemistry will test all of the ideas you have studied since the start of the course. Use this as a checklist to make sure you have covered all of the topics that could come up in the exam

**Year 9 topics –**

**Topic 1: Atomic Structure –** Understanding the structure of the atom

**Topic 2: The Periodic table –** How the periodic table has developed and trends/ properties of specific groups within the periodic table

**Topic 3: Chemical Bonding –** Understand the 3 types of bonding

**Topic 4: Bonding, structure and properties –** Understand how bonding affects structure and properties

**Topic 5: Chemical Changes –** The reactivity series, metal extraction and oxidation /reduction

**Topic 6: Reactions of Acids –** Understand what the pH scale is and how acids react with different substances

**Topic 7: Chemistry of the atmosphere –** Understand how the Earth’s atmosphere has changed and the problems we are causing

**Topic 8: Using Earth’s resources and obtaining potable water –** Understand what potable water is and how water can be treated

**Topic 9: Life cycle assessment and recycling –** Know what the life cycle assessment is and the benefits/ drawbacks of recycling

**Year 10 topics –**

**Topic 1: Carbon compounds as fuels and feedstock –** Understand how fraction distillation works and why hydrocarbons are cracked

**Topic 2: Purity, formulations and chromatography –** Understand the difference between pure and impure, know what a formulation is and be able to explain how chromatography works

**Topic 3: Identification of common gases –** Be able to test for and identify different gases

**Topic 4: Rates of reaction –** Understand the factors that affect the rate of reaction and how to calculate rate

**Topic 5: Quantitative chemistry and titrations –** Understand how to calculate Ar, Mr and moles and know what is mean by the term conservation of mass. Also be able to calculate reacting masses, percentage yield, atom economy, concentration and volumes of gas. Students should understand how to carry out a titration and complete titration calculations

**Topic 6: Electrolysis –** Understand the process of electrolysis for any ionic compound and be able to predict the products of the electrolysis of aqueous solutions. Be able to write half equations to represent what is happening at each electrode

**Topic 7: Endothermic, exothermic and fuel cells –** Understand the difference between endothermic and exothermic, be able to draw energy profiles for each and calculate energy changes of reactions. Students also need to understand how chemical cells and fuel cells work