



West Park School

Triple Chemistry

Mock Examination 2023

In readiness for your mock examination in Triple Chemistry you must **LEARN** and **REVISE** the following content and skills:

Chemistry: Paper 1

Atomic Structure and the Periodic Table

Atoms, elements, compounds and mixtures.
The development of the model of the atom.
Subatomic particles.
The development of the periodic table.
Properties and trends of groups in the periodic table.

Structure and Bonding

Ionic, covalent and metallic bonding.
The states of matter and state symbols.
Properties of matter e.g. polymers, alloys.
Giant covalent compounds and fullerenes.
Nanoparticles and bulk materials.
Uses of nanoparticles.

Chemical calculations

Conservation of mass and balanced chemical equations.
Relative formula mass and moles.
Apparent changes in mass, chemical measurements and limiting reactants.
Reacting masses (recipe) calculations. (HT only).
Concentrations of solutions.
Percentage Yield and Atom Economy.
Titration calculations.
Volumes of gases and moles.

Chemical Changes

The reactivity series, metal extraction, oxidation and reduction.
Reactions of acids with metals, alkalis and bases.
Making salts.
The pH scale and neutralisation.
Titrations.
Strong and weak acids (HT only).

Electrolysis

Electrolysis – molten ionic compounds, aqueous solutions, extraction of metals.
Half-equations (HT only).

Energy Changes

Exothermic and endothermic reactions and reaction profiles.
Bond energy calculations (HT only).
Cells and batteries.

Fuel Cells.

RPAs

Preparation of a soluble salt using an insoluble oxide or carbonate.

Titrations.

Investigating variables that affect temperature changes in reacting solutions e.g. Acid + Metal, Acid + Carbonate, neutralisation and displacement of metals.

Assessment Objectives and Skills

In the examinations you will be expected to address the following assessment objectives:

AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures.

AO2: Apply knowledge and understanding of: scientific ideas; scientific techniques and procedures.

AO3: Analyse information and ideas to: interpret and evaluate; make judgements and draw conclusions; develop and improve experimental procedures.

Extended response – all examinations will include a number of “long answer” questions.

Maths – you will be expected to show basic mathematical skills in all exams. Biology papers will include at least 10% mathematical content, Chemistry papers 20% and Physics 30%.

RPA – There will be at least one question about a required practical activity in each examination.