


A Level Year 1 Chemistry Curriculum (KS5)


Exam Board: AQA Qualification: A Level Chemistry

|  Holly Lodge High School College of Science | | | | | | |
|--|--|--|---|---|---|------------------------------------|
| Term | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Focus | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.2. Inorganic Chemistry | Revision |
| Key Tasks | 3.1.1 Atomic Structure 3.1.2 Amount of a substance 3.3.1 Introduction to organic chemistry | 3.1.3 Bonding 3.1.4 Energetics 3.3.2 Alkanes 3.3.3 Halogenoalkanes | 3.1.5 Kinetics 3.1.6 Equilibria 3.3.4 Alkenes 3.3.5 Alcohols | 3.1.7 Oxidation, reduction and redox reactions 3.3.6 Organic Analysis | 3.2.1 Periodicity 3.2.2 Group 2, the alkaline earth metals 3.2.3 Group 7, the halogens | Revision for internal examinations |
| Assessment | Required practical 1: Make up a volumetric solution and carry out a simple acid–base titration (Topic 3.1.2) End of topic tests: 3.1.1, 3.1.2 & 3.3.1 | Required practical 2: Measurement of an enthalpy change (Topic 3.1.4) End of topic tests: 3.1.3, 3.1.4, 3.3.2 & 3.3.3 | Required practical 3: Investigation of how the rate of a reaction changes with temperature (Topic 3.1.5) Required practical 5: Distillation of a product from a reaction (Topic 3.3.5) | Required practical 6: Tests for alcohol, aldehyde, alkene and carboxylic acid (Topic 3.3.6) | Required practical 4: Carry out simple test-tube reactions to identify: cations – Group 2, NH_4^+ , anions – Group 7 (halide ions), OH^- , CO_3^{2-} , SO_4^{2-} (Topic 3.2..3) | Mock Examinations |

| | | | | | | |
|--|--|--|---|--|--|--|
| | | | End of topic tests: 3.1.5, 3.1.6, 3.3.4 & 3.3.5 | | | |
|--|--|--|---|--|--|--|

A Level Year 2 Chemistry Curriculum (KS5)

Exam Board: AQA Qualification: A Level Chemistry

|  Holly Lodge High School College of Science | | | | | | |
|--|---|--|---|--|------------------------------------|-----------------------|
| Term | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| Focus | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.1. Physical Chemistry Section 3.3. Organic Chemistry | Section 3.3. Organic Chemistry | Section 3.2. Inorganic Chemistry | Revision | Extremal Exams |
| Key Tasks | 3.1.8 Thermodynamics 3.1.9 Kinetics 3.3.7 Nomenclature and isomerism 3.3.8 Compounds | 3.1.10 Equilibrium constant K_p 3.1.11 Electrode potentials and electrochemical cells | 3.1.12 Acids, bases and buffers 3.3.14 Structure determination 3.3.15 | 3.2.4 Periodicity 3.2.5 The transition metals 3.2.6 Reactions of inorganic compounds | Revision for external examinations | Extremal Exams |

| | | | | | | |
|-------------------|---|---|---|--|--|----------------------|
| | containing the carbonyl group 3.3.9 Aromatic Chemistry | 3.3.10 Amines 3.3.11 Polymerisation 3.3.12 Amino acids, proteins and DNA 3.3.13 Organic synthesis and analysis | Chromatography | in aqueous solutions | | |
| Assessment | Required practical 7: Measuring the rate of reaction: by an initial rate method and by a continuous monitoring method (Topic 3.1.9) Required practical 10: Preparation of: a pure organic solid and test of its purity and a pure organic liquid (Topic 3.3.8) | Required practical 8: Measuring the EMF of an electrochemical cell (Topic 3.1.11) | Required practical 9: Investigate how pH changes when a weak acid reacts with a strong base and when a strong acid reacts with a weak base (Topic 3.1.12) Required practical 12: Separation of species by thin-layer chromatography (Topic 3.3.15) | Required practical 11: Carry out simple test-tube reactions to identify transition metal ions in aqueous solution (Topic 3.2.6) | | External Exam |