Alevel Chemistry KS5 Overview 2020-21

KS5 – AQA Chemistry Alevel 7404/7405

Website for in depth subject content:
https://www.aqa.org.uk/subjects/science/as-and-a-level/chemistry-7404-7405

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 12	**Physical chemistry** Atomic structure and Amount of substance *Physical Required practical e.g. Make up a volumetric solution and carry out a simple acid-base titration* **Organic chemistry** Introduction to organic chemistry and Alkanes	**Physical chemistry** Bonding **Organic chemistry** Halogenoalkanes, alkenes and Alcohols *Organic Required practical e.g. Distillation of a product from a reaction*	**Physical chemistry** Energetics and Kinetics *Physical Required practical's e.g. Measurement of an enthalpy change Investigation of how the rate of a reaction changes with temperature* **Organic chemistry** Organic analysis, Periodicity and Group 2 the alkaline metals *Organic Required practical e.g. Tests for alcohol, aldehyde, alkene and carboxylic acid*	**Physical chemistry** Chemical equilibria, Oxidation, reduction and redox equilibria **Organic chemistry** Group 7, the halogens *Organic Required practical e.g. Carry out simple test-tube reactions to identify cations and anions in aqueous solution*	Catch up and review Exam preparation	Exam preparation End of year exams

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 13	**Physical chemistry** Acids, bases and buffers and Rate equations *Physical Required practical's e.g.* Investigate how pH changes when a weak acid reacts with a strong base and when a strong acid reacts with a weak base Measuring the rate of a reaction by an initial rate method by a continuous monitoring method **Organic chemistry** Optical isomerism, Aldehydes and ketones and Carboxylic acids and derivatives *Organic Required practical's e.g. Preparation of a pure organic solid and test its*	**Physical chemistry** Equilibrium constant Kp for homogenous systems and Thermodynamics **Organic chemistry** Aromatic chemistry, Amines and Polymers	**Physical chemistry** Properties of period 3 elements and their oxides **Organic chemistry** Amino acids, proteins and DNA, Organic synthesis and NMR spectroscopy	**Physical chemistry** Electrode potentials and electrochemical cells *Physical Required practical's e.g. Measuring the EMF of an electrochemical cell* **Organic chemistry** Transition metals and Reactions of ions in aqueous solution ad and Chromatography *Organic Required practical's e.g. Carry out simple test-tube reactions to identify transition metal ions in aqueous solution Separation of species by thin-layer chromatography*	Catch up and review Exam preparation	Exam preparation Final exams

	purity a pure organic liquid					