

## Subject - KS5 AQA CHEMISTRY

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

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|---------|---|--|---|---|---|-----------------------|
| Year 13 | <b>Physical chemistry</b><br>Acids, bases and buffers and Rate equations<br><br>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<br>Measuring the rate of a reaction by an initial rate method by a continuous monitoring method | <b>Physical chemistry</b><br>Equilibrium constant Kp for homogenous systems and Thermodynamics | <b>Inorganic chemistry</b><br>Properties of period 3 elements and their oxides  | <b>Physical chemistry</b><br>Electrode potentials and electrochemical cells<br><br>Physical Required practical's e.g. Measuring the EMF of an electrochemical cell  | Catch up and review Exam preparation<br><br>Exam preparation<br>Final exams | Official Examinations |
|         | <b>Organic chemistry</b><br>Optical isomerism, Aldehydes and ketones and Carboxylic acids and derivatives<br><br>Organic Required practical's e.g. Preparation of a pure organic solid and test its purity a pure organic liquid  | <b>Organic chemistry</b><br>Aromatic chemistry, Amines and Polymers                            | <b>Organic chemistry</b><br>Amino acids, proteins and DNA, Organic synthesis, NMR spectroscopy and Chromatography<br><br>Organic Required practical's e.g. Separation of species by thin-layer chromatography | <b>Inorganic chemistry</b><br>Transition metals and Reactions of ions in aqueous solution<br><br>Inorganic Required practical's e.g. Carry out simple test-tube reactions to identify transition metal ions in aqueous solution |   |                       |

