

## Key Stage 5 A –level Chemistry

	Year 12	Year 13
<b>Autumn 1</b>	Introduction to A-level Chemistry: atomic structure: investigating atoms; electronic structure. Bonding and Periodicity: inorganic chemistry; types of bonding: physical properties	Physical Chemistry: enthalpy; Born- Haber cycles; entropy; free energy; redox; commercial cells. Inorganic Chemistry: periodicity; transition metals and catalysts.
<b>Autumn 2</b>	Amount of Substance: calculations involving masses, volumes and concentrations. Organic Chemistry: structure and reactions of alkanes, and their environmental and social context.	Physical Chemistry: kinetics; equilibrium; acids & bases. Organic Chemistry: isomerism; carbonyls; acylation; aromatic chemistry; amines.
<b>Spring 1</b>	Physical Chemistry: energetics Inorganic Chemistry: redox; group 7 chemistry. Coursework: ISA	Inorganic Chemistry: transition metals and their reactions; hydrolysis; substitutions. Coursework: ISA
<b>Spring 2</b>	Physical Chemistry: kinetics; equilibrium. Organic Chemistry: haloalkanes; alkenes. Coursework: ISA	Organic Chemistry: amino acids; proteins; polymers; synthesis. Coursework: ISA
<b>Summer 1</b>	Inorganic Chemistry: group 2 chemistry Analytical Chemistry Revision A2 course starts: enthalpy	Overview of Inorganic Chemistry. Revision
<b>Summer 2</b>	Organic Chemistry: alcohols Analytical Chemistry Revision A2 course starts: kinetics	Structure Determination Revision