

Holly Lodge High School A-level Chemistry 2021-2023



Cultural Capital

Through studying this course students gain the understanding of how concepts, theories and big ideas of chemistry have developed. Of how the thoughts and experiments of scientists over a succession of study have allowed us to arrive to present day understanding, Furthermore, the historical global contribution of many cultures have been refined to modern day logic explaining matter and energy. An appreciation of how fine detail and rigorous testing of theory in practice has led to the successes celebrated by humankind such as Modern medicine, Material Science and energy employment. Appreciation of success is further consolidated by the acknowledgement of Juxtaposed milestones which have tested the resilience of human endeavour in this field. Such examples include the realisation of Carcinogenic compounds, the bearing of chirality on Thalidomide and the deduction of the Kekule structure.

A Level Chemistry:

The AQA A level specification in Chemistry has been developed in collaboration with professionals to ensure that the subject content is relevant to real world experiences allowing you to study the composition, structure, properties and change of the matter which makes up our world. You will study the world right down to its molecular and atomic structure, discovering more about the elements and compounds which surround us in our daily lives.

A Level UCAS points

Grade	Points
A*	56
A	48
B	40
C	32
D	24
E	16

A LEVEL FINAL External Exams

8.2 Employment of practical skills to further develop key techniques & investigative approaches.

3.2 The final module begins with the chemical properties & establish patterns & trends of period 3 elements as oxides. Link the chemical structures of transition elements to their chemical, physical properties as well as geometry of ions and molecules. Explain reactions of inorganic compounds in aqueous solutions

Course Outcomes

This Chemistry course is a stepping stone to future study of Chemistry or a related area. A level Chemistry gives you the opportunity to explore study of the composition, structure, properties and change of the matter which makes up our world. This course provides opportunities to use practical experiences to link theory to reality, and equip you with the essential

3.3 Deeper content looking at chirality and enantiomers. Also a progressive study on other organic homologous series namely Carbonyl compounds, Organic Acids, Aromatic and Acyl compounds. The study will stretch as far as modern synthetic compounds such as polymers as well as Biochemistry in terms of DNA.

8.2 Employment of practical skills to further develop key techniques & investigative approaches.

Physical Chemistry (A2 content)

3.1 Here theory-to-practical aspects such as Reaction Rates and equations will be studied. A study on the physical context of chemistry such as Feasibility of reaction and an extensive study of acids and buffers will also feature.

8.2 Employment of practical skills to further develop key techniques & investigative approaches.

Inorganic Chemistry (A2 content)

YEAR TWO

Organic Chemistry (A2 content)

7.2 Employment of practical skills to develop skills in the use of essential apparatus and techniques.

3.2 The genius of the periodic table, which encompassing patterns and trends within groups and Periods. The intricacy of elemental position in terms of multiple parameters such as chemical and physical nature in relation to periodicity and group properties.

Inorganic Chemistry (AS content)

7.2 Employment of practical skills to develop skills in the use of essential apparatus and techniques.

3.1 Electronic Structure and how the arrangement of electrons in orbitals is linked to the way in which elements are organised in the Periodic Table. The nature of bonding within a molecule and forces between molecules. Equilibria and Le Chateliers, Redox and Entropy.

YEAR ONE

Organic Chemistry (AS content)

3.3 An Introduction to the fascinating world of organic chemistry with an insight into how millions of covalent compounds are attributed to the unique properties of the element carbon. Content will cover various chemical families along with synthesis and reaction mechanisms.

7.2 Employment of practical skills to develop skills in the use of essential apparatus and techniques.

Physical Chemistry (AS content)

Size and Structure

The three chemistry topics are split across 3 exam papers.

Paper 1: Physical chemistry (relevant topics) & inorganic chemistry (105 marks of short and long answers). 35% of the total marks.

Paper 2: Physical chemistry (relevant topics) & Organic chemistry (105 marks of short and long answers). 35% of the total marks.

Paper 3: A-level chemistry (40 marks of questions on practical techniques and data analysis, 20 marks of questions testing across the specification & 30 marks of multiple choice questions). 30% of the total marks.

The practical skills assessment involves performing a series of twelve experiments in class time which are assessed

Pass/Fail mark. Assessment must be passed to pass the course.