THE JCB ACADEMY
Sixth Form

Chemistry

A level

Examination Board: AQA

Aims of course:

Learners will develop an understanding of how chemical concepts which apply at an atomic level influence the bulk properties of materials. The key concepts are studied within the context of the chemical industry, including how reactions can be carried out in a more environmentally friendly way and the world around us.

Programme of study

Level	Module Name	Module Description
Year 1	Physical Chemistry	Including atomic structure, bonding, energy changes in reactions and rates of reaction.
Year 1	Inorganic Chemistry	Including patterns in the Periodic table and the chemistry of the elements of group 2 and group 7.
Year 1	Organic Chemistry	Including the chemistry of the alkanes, alkenes, alcohols and halogenoalkanes.
Year 2	Physical Chemistry	Including further study of rates of reaction, reversible reactions, acid and base reactions and electrode potentials.
Year 2	Inorganic Chemistry	Including the properties of the elements of period 3 and the chemistry of the transition elements.
Year 2	Organic Chemistry	Including the chemistry of carboxylic acids, esters, benzene and amino acids. Different methods of analyzing organic chemicals are also studied.

Approaches to learning:

A variety of approaches are taken to teaching and learning in Chemistry including opportunities to develop research skills, quizzes, games, and preparing and giving presentations. Studying chemical enables students to develop their problem solving skills as well as promoting team work, logical thinking, time management and organization. There is also a requirement for practical work to be undertaken and a considerable amount of lab work is spread throughout the 2 years.

Who is this course aimed at?

This qualification is designed for learners who are interested in finding out more about what the world around them is made of and how it works. It is a requirement for those wishing to study medicine at university and an ideal subject for broadening engineering options at degree level.

Minimum entry requirement:

Five GCSEs at grade 9-5, including Mathematics and English.
+ GCSE grade 6 in Mathematics and GCSE grade 7 in Sciences.

All subjects will be terminally examined at the end of two years, with internal exams throughout year 1 and 2.

Please note: The course is dependent on numbers registering their interest to study at A Level. The subject will only run if there are sufficient student numbers.