

## **Website information - Faculty of Science -Chemistry**

At Unity Academy all students study chemistry at both keys stage 3 and key stage 4.

### **KS3 (Phase 4)**

The main focus of KS3 is to fully prepare students with the knowledge and skills required to excel during their GCSEs. Fundamental topics and skills are introduced in Year 7 and then built upon into Year 8. There is a strong emphasis on learning for intrinsic pleasure. Students are encouraged to enquire, to discuss and question the how's and why's of the world around us and beyond. Content is delivered in clearly defined topics with a strong emphasis on practical work. Students are assessed regularly, in formative and summative testing and also throughout lessons.

The topics covered in chemistry in years 7 and 8 are: Atomic structure and separation techniques; Chemical changes; Energy changes; Rates of reaction; Atmosphere and Using resources.

### **Key Stage 4 (Phase 5)**

Students are encouraged to think, discuss and to question science, and to develop the skills element of the new GCSE through regular 'required practical' assessments. There is a strong numeracy and literacy focus in the biology GCSE, and this forms a crucial part of the teaching alongside the scientific content. Student work is assessed regularly, with feedback from teachers on how to improve, and planned opportunities to do so. Exam preparation is on-going and rigorous, ensuring that students are fully prepared for the new linear nature of the GCSEs.

The topics covered in chemistry in years 9, 10 and 11 are: Atomic structure and the periodic table; Bonding, structure and the properties of matter; Quantitative chemistry; Chemical changes; Energy changes; Organic chemistry; Chemical Analysis; Chemistry of the atmosphere and Using resources.

Regular, independent study is promoted in chemistry, at both key stages, through the use of the whole school home study policy. Students are encouraged to reflect on the learning that has taken place in the classroom by revisiting the key concepts in their own time using their reflection logs. Knowledge organisers for each topic are provided to support students with this.

## Link to specification

<https://filestore.aqa.org.uk/resources/chemistry/specifications/AQA-8462-SP-2016.PDF>

## Assessment at end of Key Stage 4

Paper 1:	+	Paper 2:
<b>What's assessed</b> Topics 1–5: Atomic structure and the periodic table; Bonding, structure, and the properties of matter; Quantitative chemistry, Chemical changes; and Energy changes.		<b>What's assessed</b> Topics 6–10: The rate and extent of chemical change; Organic chemistry; Chemical analysis, Chemistry of the atmosphere; and Using resources.
<b>How it's assessed</b> <ul style="list-style-type: none"><li>• Written exam: 1 hour 45 minutes</li><li>• Foundation and Higher Tier</li><li>• 100 marks</li><li>• 50 % of GCSE</li></ul>		<b>How it's assessed</b> <ul style="list-style-type: none"><li>• Written exam: 1 hour 45 minutes</li><li>• Foundation and Higher Tier</li><li>• 100 marks</li><li>• 50 % of GCSE</li></ul>
<b>Questions</b> Multiple choice, structured, closed short answer and open response.		<b>Questions</b> Multiple choice, structured, closed short answer and open response.