

RMGS CURRICULUM MAP Chemistry DEPARTMENT

CURRICULUM INTENT

GCSE

The chemistry scheme of work has the emphasis on the key elements (Structure, Bonding and Reactions) in Y9 which underpin the rest of the course. Throughout the rest of the GCSE these key topics are re-visited in numerous other units and continual revision is therefore embedded. We have deliberately placed the Calculations in Y10 rather than Y9 so the course is less theoretical in Y9 and more practically driven, and again because there are a lot of calculations in the Separate course, those extra ones are placed in Y11, to both refresh understanding and to keep some of the similar theory to a minimum. Throughout the course there is a big emphasis on practical work, with the students becoming proficient in practical applications and also, through the use of Required Practical sheets, in planning, write-up and evaluation of the work. The units which have more of an application to everyday life are more evenly distributed throughout the 3-year course, than the structure given by AQA, which has them coming all towards the end. The use of analytical thinking and analysis of data are key to this subject and the students are shown how to do this and develop this aspect throughout the course. This will inevitably help them at A level if science is chosen.

A-level

The OCR chemistry course is a fair course, in that it offers the students a challenging scheme whilst being accessible to the majority. Given the structure of the course is fairly linear deviating from a prescribed route is not advantageous. Though early on in the physical side of the course we have changed the order of one aspect (Ionisation energies) which we felt was better taught earlier to give evidence for electronic structure. The course starts with a re-cap of GCSE which we split evenly in Term 1 to maximise the input, especially with regard to the calculations which feature heavily throughout the A level, and to give a basis for the rest of the course.

Again similar to the GCSE we back the theory in the classroom with an emphasis of the practical work. The PAGs are used heavily to allow the students to have a more inquiry led experience, especially when chemical tests are involved. The follow-up of these PAGs also proves beneficial where the evaluation questions allow for a thorough examination of both the design of the experiment and the pitfalls of the analysis.

Termly Curriculum Overview

Year Group	Autumn 1	2	Spring 3	4	Summer 5	6
9	Atomic Structure End of unit assessment - exam	The Periodic Table End of unit assessment - exam	Structure and Bonding (ionic and metallic) End of unit assessment - exam	Structure and Bonding (Covalent) End of unit assessment - exam	Chemical Changes End of unit assessment - exam	Earth's Resources
10	Earths Resources, then Rates and Equilibria End of unit assessment - exam	Electrolysis, then Chemical Calculations End of unit assessment - exam	Chemical Calculations End of unit assessment - exam	Crude Oil End of unit assessment - exam	The Earth's Atmosphere End of unit assessment - exam	Energy End of unit assessment - exam
11	Separate – Use of Resources, then Chemical Analysis Trilogy - Chemical Analysis End of unit assessment - exam	Separate – Chemical Calculations, then finish Energy End of unit assessment - exam Trilogy - Recap: Chemical Changes, The Earth's Atmosphere and the Earth's Resources	Separate – Organic chemistry and then Polymers End of unit assessment – exam Trilogy – Recap Y9 Topics Assessment- Exam questions	Separate – Recap: Chemical Changes, The Earth's Atmosphere and the Earth's Resources Assessment- Exam questions Trilogy – recap Y10 Topics Assessment- Exam questions	Separate – Recap on Y9 and Y10 Topics Exam Practice Assessment- Exam questions	

12	Atoms and Reactions and Structure and Bonding End of unit assessment - exam	The Periodic Table and Organic 1 End of unit assessment - exam	Energy and Organic 2 End of unit assessment - exam	Energy and Organic 2 End of unit assessment - exam	Rates and Equilibria (Kc and Kp) and Carbonyl Chemistry End of unit assessment - exam	Rates and Equilibria (Kc and Kp) and Carbonyl Chemistry End of unit assessment - exam
13	pH, Aromaticity and Nitrogen Chemistry End of unit assessment - exam	Energy and Chemical Analysis End of unit assessment - exam	Transition metals End of unit assessment - exam	Recapping and Exam Practice Assessment- Exam questions		