The Fisher Way: Curriculum

The Fisher Way aims to educate and inspire with joy, faith and love because we are an inclusive Catholic community.

Successful and resilient learners who aspire to and achieve excellence

Confident individuals who can explore and communicate effectively

Responsible citizens who are active, loving and wise in all their endeavours

Subject	Chemistry
Year Group	Year 12
Intent	**Successful and resilient learners:** who understand a wide range of chemical concepts and can actively adapt to new situations **Confident individuals:** who can approach problems and practical situations in a curious and discerning way **Responsible citizens:** who can eloquently express the implications of chemistry on local, national and global issues, especially environmental ones.
Narrative	

	All learners will be able to develop essential knowledge and understanding of Chemistry and how they relate to each other. Learners will develop and demonstrate a deep appreciation of the skills, knowledge and understanding of scientific methods. They will understand how society makes decisions about scientific issues and how the sciences contribute to the success of the economy and society. The work builds on the GCSE Chemistry course studied and develops a further understanding of key concepts such as bonding and structure, rates of reaction and organic chemistry. Year 12 teaches the fundamental chemistry which is key in explaining the more complex reactions and scientific concepts required in Year 13 and it is consistently used throughout the Year 13 course.					
Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge (topics studied)	Amount of substance, Atomic structure	Redox, Bonding and structure	Group 2 and 7 Kinetics	Equilibrium and kc, Periodicity and Organic chemistry	Organic chemistry, Energetics	Organic chemistry, Energetics
Key skills	Problem solving, identification of patterns, drawing graphs, identification of errors, Calculating	Pattern construction, use of number, three dimensional shape construction	Practical skills, calculations, data analysis, graph interpretation, exam practice and skills, safe use of glassware techniques	Pattern construction, calculations, use of calculators, problem solving, practical skills, communication	Pattern identification, visualisation of 3d shapes, practical skills, communication skills, safety knowledge	Pattern skills identification, calculation, problem solving, graphing, practical kills.
Cultural capital and careers	Chemical Analyst, Pharmaceutical Scientist, Chemical Engineer, Materials Scientist, Forensic Scientist.	Chemical Patent Examiner, Environmental Chemist, Materials Engineer, Chemical Education Specialist, Crytallographer	Pharmacist,Chemical Analyst, Chemical Safety Specialist, Pharmacokineticist, Analytical Chemist	Chemical Process Engineer, Environmental Consultant, Medicinal Chemist, Forensic Chemist, Chemical Educator	Medical Chemist, Chemical Safety Specialist, Chemical Engineer, Flavour Chemist.	Identification processes used in industry, medical and crime. Calculate energy changes

Assessment	End of Topic Test	End of Topic Test	End of Topic Test	End of Topic Test	End of Topic Test	End of Topic Test