The Fisher Way: Curriculum

The Fisher Way aims to educate and inspire with joy, faith an
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 9
Intent	Successful and resilient learners: who understand chemical concepts, apply them to unfamiliar situations and develop confidence through practical enquiry. Confident individuals: who approach problems and practical work with curiosity, communicate explanations clearly and evaluate evidence. Responsible citizens: who understand the local and global implications of chemistry, including its contribution to health, industry and the sustainable use of resources.

Narrative	Learners develop the key ideas of chemistry through atomic structure and the periodic table, then apply them in chemical analysis, energy changes and bonding. They explain how atomic models have changed and how structure determines the properties of materials. The sequence builds on Year 8 reactions, formulae and periodic-table patterns. Practical work includes separation, chromatography, gas tests and temperature changes, with additional analysis for Separate Science learners. These ideas prepare learners for chemical changes, quantitative chemistry and rates in Year 10. Energy changes are introduced here and revisited with more demanding calculations later; learning is adapted to the relevant GCSE tier and pathway.					
Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge (topics studied)	Key scientific skills; atoms, elements, compounds, mixtures and separation.	Atomic models; subatomic particles, isotopes, electronic structure and periodic-table patterns.	Chemical analysis: purity, formulations, chromatography and gas tests; Separate Science ion tests.	Energy changes: exothermic and endothermic reactions, temperature investigations and reaction profiles.	Bonding: ionic and covalent bonding; structure and properties.	Giant covalent structures, polymers, metallic bonding and states of matter; nanoscience (Separate Science).
Key skills	Select separation methods; work safely; use models, units and accurate measurements.	Calculate particle numbers; represent electron arrangements; explain changes to scientific models.	Carry out chromatography and gas tests; interpret results; calculate Rf values where appropriate.	Measure temperature change; control variables; draw and interpret reaction profiles.	Use bonding diagrams; link structure and forces to melting point and conductivity.	Compare materials; apply explanations to unfamiliar substances; evaluate models and evidence.

Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cultural capital and careers	Water treatment and laboratory analysis; the importance of purity.	Development of the periodic table; analytical and nuclear science careers.	Forensic science, toxicology and quality assurance; identifying unknown substances.	Hand warmers and cooling packs; chemical engineering and energy use.	Materials science and product design; choosing substances for a purpose.	Nanotechnology and composite materials; applications in medicine and engineering.
Assessment	Retrieval and short topic checks; practical feedback.	Cumulative assessment and recovery.	Short topic checks; practical and data questions.	Cumulative assessment and recovery.	Topic checks and targeted revision.	End-of-year assessment; feedback and recovery.