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	Physics
Year Group	Year 9
Intent	Successful and resilient learners: who use physics knowledge and scientific skills to investigate and solve problems in the physical world. Confident individuals: who use models, mathematics and evidence to explain physical processes and communicate their reasoning clearly. Responsible citizens: who evaluate the benefits, risks and environmental implications of technologies and make informed decisions about energy and resources.

Narrative	Learners develop scientific skills through energy stores, transfers, conservation and efficiency. They evaluate energy resources before using the particle model to explain density, changes of state, internal energy and gas behaviour. The sequence builds on Year 7 energy and Year 8 matter. Learners become more confident in choosing equations, converting units, analysing graphs and evaluating practical measurements. Space and scientific models can provide contexts for applying these ideas. This prepares learners for electricity, atomic structure and forces in Year 10. Higher Tier and Separate Science extensions are identified within the relevant topics.					
Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Knowledge (topics studied)	Key scientific skills; energy stores, pathways and work done.	Energy calculations; power, conservation, dissipation and efficiency.	National and global energy resources; uses, reliability and environmental impacts.	Particle model: density, regular and irregular solids, liquids and changes of state.	Internal energy, heating and cooling; specific heat capacity and specific latent heat.	Particle motion, temperature and gas pressure; Separate Science gas-law extensions and consolidation.
Key skills	Use SI units; select and rearrange equations; explain energy transfers using models.	Calculate energy and efficiency; interpret graphs; justify methods of reducing unwanted transfers.	Compare numerical evidence; evaluate energy choices and the limitations of available data.	Measure mass and volume; carry out density practical work; assess measurement uncertainty.	Use heating data and equations; investigate specific heat capacity; identify sources of energy loss.	Explain pressure with particle models; interpret relationships; apply calculations appropriate to pathway.

Half term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cultural capital and careers	Energy in transport and technology; engineering applications.	Building design and efficient appliances; reducing energy waste.	Energy-sector careers; balancing reliability, cost and environmental impacts.	Materials testing and quality control; density in design and identification.	Heating systems and thermal engineering; choosing materials for a purpose.	Pressure systems and industrial safety; research using physical models.
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.