# 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

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| **Subject** | Biology |
| **Year Group** | Year 10 |
| **Intent** | Successful and resilient learners: who use biological knowledge and scientific skills to investigate the living world and solve problems.<br>Confident individuals: who explain how cells, organ systems and ecosystems function, communicate their reasoning and evaluate biological evidence.<br>Responsible citizens: who consider the ethical and environmental implications of biology and use evidence to make informed decisions about health, biodiversity and sustainability. |

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| **Narrative** | Learners develop their understanding of photosynthesis and plant organisation, then study infection and the human response to disease. Homeostasis connects the nervous system to hormonal control. Reproduction and genetics complete the year, linking cell division to inheritance.<br>This builds directly on Year 9 cells, organisation and respiration. Learners apply this knowledge to disease prevention, treatment, control systems and reproductive decisions, using practical evidence and carefully structured explanations.<br>The sequence prepares learners for variation, evolution and ecology in Year 11. Higher Tier and Separate Science content is taught where required, including appropriate extensions on plant responses, the brain, the eye and biological control systems. | | | | | |
| **Half term** | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| **Knowledge (topics studied)** | Photosynthesis: plant structures, leaves, limiting factors, glucose use and plant growth. | Infection and response: pathogens, human defences, vaccination, antibiotics and drug development. | Homeostasis: nervous system, reflexes and reaction time. Brain and eye (Separate Science). | Endocrine system and blood glucose; further homeostatic control and plant responses (Separate Science). | Reproduction: menstrual cycle, contraception, IVF (Higher Tier), sexual and asexual reproduction, meiosis. | DNA, genes, chromosomes, inheritance, sex determination and inherited disorders; Separate Science extensions. |
| **Key skills** | Investigate photosynthesis rate; identify limiting factors; interpret graphs and evaluate controls. | Evaluate infection-control evidence and drug trials; apply safe aseptic technique; assess treatment claims. | Carry out the reaction-time practical; compare responses; evaluate repeatability and confounding variables. | Interpret hormone and glucose graphs; explain feedback; investigate responses using suitable models. | Interpret menstrual-cycle graphs; compare contraception; explain meiosis and evaluate reproductive technologies. | Use genetic diagrams and probability; distinguish genotype and phenotype; interpret family information. |

| Half term | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| **Cultural capital and careers** | Horticulture and agricultural science; balancing greenhouse costs with crop yield. | Semmelweis and penicillin; vaccination, public health and pharmaceutical research. | Neuroscience, optometry and rehabilitation; applying knowledge of reflexes and responses. | Diabetes care, endocrinology and plant science; informed health decisions. | Reproductive healthcare; respectful consideration of the ethical issues surrounding fertility treatment. | Genetic counselling and screening; the contribution of Mendel and modern genetics. |
| **Assessment** | Topic checks; practical and exam questions. | Topic assessment; feedback and recovery. | Topic checks; calculations and data questions. | Topic assessment; practical feedback and recovery. | Cumulative assessment and targeted revision. | Year 10 assessment; question-level feedback and recovery. |