

Science Department Learning Journey

Year 7: Foundations of Science

Biology • Movement and Cells • Interdependence & Plant Reproduction • Variation & Human Reproduction → Connects to Year 8: Body Systems	Chemistry • Particle Model & Separating Mixtures • Periodic Table & Elements • Acids & Bases → Connects to Year 8: Materials & Reactions	Physics • Speed, Gravity & Space • Electricity • Energy & Sound & Light → Connects to Year 8: Forces & Energy
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Year 8: Building on the Basics

Biology • Breathing & Digestion • Respiration & Photosynthesis • Evolution & Inheritance → Connects to Year 9: GCSE Biology	Chemistry • Earth & Climate • Chemical Energy & Reactions • Metals & Materials → Connects to Year 9: GCSE Chemistry	Physics • Contact Forces & Pressure • Electromagnets & Magnetism • Work, Heating & Waves → Connects to Year 9: GCSE Physics
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Year 9: Preparing for GCSE *All students begin AQA GCSE Triple Science content*

Biology • Cells (structure, microscopy, mitosis) • Organisation (tissues, organs, enzymes) → Connects to Year 10: Biology GCSE	Chemistry • Atomic Structure & Periodic Table • Rates • Organic Chemistry • Energy Changes → Connects to Year 10: Chemistry GCSE	Physics • Atomic Structure (radioactivity) • Energy • Forces • Electricity → Connects to Year 10: Physics GCSE
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Key Stage 4: GCSE Science (Years 10 & 11)

Years 10 and 11 focus on the GCSE Science curriculum, building upon foundations from Years 7-9. Students choose between Combined Science (Double Award = 2 GCSEs) or Triple Science (3 separate GCSEs).

Combined Science: Trilogy (Double Award = 2 GCSEs) Year 10: • Infection & Response • Bioenergetics • Bonding & Chemical Changes • Forces & Electricity Year 11: • Homeostasis & Inheritance • Ecology • Using Resources • Waves & Electromagnetism Foundation: Grades 1-1 to 5-5 Higher: Grades 4-4 to 9-9 6 exams × 1h 15min	Triple Science (3 separate GCSEs) Year 10: Same core topics as Combined Science PLUS: • Additional depth & detail • Extended calculations • More required practicals Year 11: Same as Combined Science PLUS: • Astrophysics (Physics) • Additional organic chemistry • Advanced biology topics Foundation: Grades 1-5 per subject Higher: Grades 4-9 per subject 6 exams × 1h 45min
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