



Curriculum Map – Science 2023-2024



Subject Intent: Students follow content according to the National Curriculum for science, which reviews and builds on the understanding from KS2. Content at KS3 is sequenced carefully for progression and links to prior learning are made clear as students make progress through the key stage. Practical skills are modelled for students with opportunities for students to develop the skills of enquiry and working scientifically. During Key Stage the curriculum also builds in meaningful links to our learners’ real-world experiences as well as the wider world. We aim for students to not only gain the subject knowledge of science, but through practical work to become good scientists themselves. The challenging technical vocabulary of science has a key role in promoting literacy. The curriculum is designed to reinforce and develop mathematics skills in all students. Going forward, assessments are to be carried out at three points in each topic; At the start to assess prior knowledge, a formatively assessed piece of work in the middle of the topic, and a summative assessment at the end to establish what has been learned.

R Real World E Engaging & Enriching S Skills for Life I Inclusive L Leadership I Independence E Encourages Reflection N Next Steps C Challenge E Ethics & Empathy	KS2 National Curriculum	<i>Order of teaching may vary slightly due to topic rotations</i>	Key stage 3			GCSE* – AQA Trilogy / Separate Science		Next Steps
	By the end of KS2, children should be able to use abstract scientific ideas to describe and to make predictions about how the world works. They should also recognise that science is in a constant state of flux, and that scientific ideas develop over time, as our understanding improves. KS2 children should be able to design and conduct a fair test, drawing conclusions from the data they have gathered. Key topics: Plants, Animals, Light, Living things and habitats, properties of materials, sound, electricity, Earth and space, Forces and Rocks.	Autumn Term	<u>Year 7</u>	<u>Year 8</u>	<u>Year 9</u>	<u>Year 10</u>	<u>Year 11</u>	KS5:
		Spring term	Cells	Tissues and Organs	Acceleration	B1 Cells C1 Atomic Structure and the Periodic Table P1 Energy B2 Organisation C2 Bonding P2 Electricity B3 Infection and response P3 Particle Model of Matter C3 Quantitative Chemistry B4 Bioenergetics C4 Chemical Changes P4 Atomic Structure C5 Energy Changes	B4 Community-level systems C4 Predicting and identifying reactions and products P4 Waves and radioactivity B5 Genes, Inheritance and Selection C5 Monitoring and controlling chemical reactions P5 Energy B6, C6, P6 Global challenges B7, C7, P7 Practical skills	A-level <i>Biology, Chemistry, Physics.</i> Vocational <i>e.g. HNC Applied Science, Forensic and Criminal investigation.</i> Apprenticeships <i>Various</i> Careers: Science careers are too numerous and diverse to list here. Roles include: <ul style="list-style-type: none"> • Research • Applied scientist • Science-based professions (e.g. medicine, pharmacy, engineering.) – • Education (in schools or universities).
		Summer Term	Forces	Movement and Pressure	Periodic Table			
		Autumn Term	Particles	Separating Mixtures	Life Diversity			
		Spring term	Gravity	Circuits	Introduction to Quantitative Chemistry			
		Summer Term	Atoms Elements and Compounds	Changing substances	Sound and waves			
		Autumn Term	Reproduction	Respiration and Photosynthesis	Genetics			
		Spring term	Energy	Magnetism	Using resources			
		Summer Term	Interdependence	Earth Systems	Heating			
		Autumn Term	Mixtures	Nutrition	Growth and Differentiation			
		Spring term	Circuits	Light				

* From September 2023 Year 10 will follow AQA Combined Science (Trilogy) and Separate Science GCSE. Year 11 Students will continue with OCR Gateway