

Year 9 Sciences Curriculum Map

Subject/Term	Term 1 Knowledge	Term 2 Knowledge	Term 3 Knowledge	Term 4 Knowledge	Term 5 Knowledge	Term 6 Knowledge
Science Rotation <i>Skills: Scientific thinking; Experimental skills; Analysis and evaluation; Scientific vocabulary</i>	Cells to systems; The Earth and its Atmosphere; Thermal Physics (Energy 1)			Organisation 1; Atomic Structure and the Periodic Table; Sound as Waves		
Geography 5 units covered <i>Skills: Knowledge; Understanding; Enquiry</i>	G1 Earth's Resources – Needs; Pressures; Solutions	G2 Restless Planet - Processes; Effects; Case Studies	G3 Globalisation – Employment; UK; The World	G4 Ecosystems – Characteristics; Biomes; Challenges	G5 Middle East – Physical; Human; World role	
Maths 9 units covered <i>Skills: Number Place Value & Four Operations; Number FDP & Ratio; Measurement & Units; Geometry, Angles & Shapes; Statistics; Problem Solving & Investigations</i>	Number 1: <ul style="list-style-type: none"> Calculating with bounds Fractional & negative laws of indices Standard form calculations Calculating with surds Rationalising the denominator Algebra 1: <ul style="list-style-type: none"> Developing algebraic skills Difference of two squares Algebraic fractions Nth term Graphical inequalities Geometry & Data 1: <ul style="list-style-type: none"> Vector notation and calculations Translations Reflections Rotations Enlargement 		Number 2: <ul style="list-style-type: none"> Developing all work on percentages Growth and decay Compound measures Real life graphs SDT calculations Algebra 2: <ul style="list-style-type: none"> Developing skills with algebraic equations Solving quadratic equations Developing skills with simultaneous equations Developing skills with rearranging formulae Geometry & Data 2: <ul style="list-style-type: none"> Developing skills with area and volume Developing skills with surface area Developing skills with trigonometry 		Number 3: <ul style="list-style-type: none"> Developing recurring decimals skills Developing ratio skills Direct proportion from a table Direct & Inverse proportion – algebraically Start GCSE Scheme of Work – Mid-May Geometry & Data: <ul style="list-style-type: none"> Averages Collecting Data & Sampling methods Bar charts, pictograms and line graphs Pie charts Scatter graphs Cumulative frequency diagrams Box and whisker diagrams Histograms Number: <ul style="list-style-type: none"> Rounding and Estimating Properties of Number 	

Computing 6 units covered <i>Skills:</i> <i>Computational Thinking;</i> <i>Problem Solving;</i> <i>Analysis,</i> <i>Evaluation and Implementation;</i> <i>Technical Vocabulary</i>	Data Modelling and Visualisation Students will learn about how data can be represented effectively and how real-world situations can be modelled allowing for interpretation of ‘what-if’ scenarios.	Databases Students will learn about storing data and how relational databases provide an efficient way of doing so. Students will gain an appreciation of different forms of data and how data schemas should be designed to make data quicker and easier to access, collate and process.	Memory and Storage Students will study and extend their learning of how information is stored, storage components and be able to evaluate suitability for a range of given scenarios (including data-sizing calculations).	Online application development Students will combine coding, databases and web presentation skills to create a simple web-based interactive application.	Ethics in Technology Students will examine a range of ethical scenarios and how these impact individuals, wider society and technological progress in general.	Digital Entrepreneurialism Students will learn about how digital systems are integrated in the real world and the opportunities this provides in a range of different industries.
PE 4 units covered <i>Skills include:</i> <i>Problem solving;</i> <i>Accountability;</i> <i>Commitment;</i> <i>Teamwork; Goal setting</i>	Effective Teams Basketball (PE1) Netball (PE2) Football (PE3) Rounders (PE1) Tennis (PE2) Cricket (PE3)	Power of Positivity Sport Education (PE1) Sport Education (PE2) Sport Education (PE3) Rugby (PE1) HRF (PE2) Trampolining (PE3)	Attitude & Behaviours of a Leader Tchoukball (PE1) Basketball (PE2) Rugby (PE3) Trampolining (PE1) Rugby (PE2) HRF (PE3)	Sporting Values HRF (PE1) Trampolining (PE2) Tchoukball (PE3) Athletics (PE1) Athletics (PE2) Athletics (PE3)		
DTA Rotation of 5 units <i>Skills:</i> <i>Investigation;</i> <i>Analyse;</i> <i>Generate Ideas;</i> <i>Make; Evaluate</i>	DT – Multi-Materials - Design context, working to a design brief, client, user needs and purpose. Polymers and forming.	DT – Graphic Products - CAD tools, research exploration, iterative processes and emerging technologies. Ergonomics and anthropometrics.	DT – Textiles - Overlock and embroidery. Taking account of user needs, functionality and purpose when designing.	Art & Design - Formal elements, proportions, composition and portraiture.	Food & Nutrition - Where foods come from, specific dietary requirements and diet across life.	