

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; Atomic structure and the periodic table; Energy transfers			Organisation; The Earth and its atmosphere; Energy resources and Space		
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 Russia – 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: - Calculating with bounds - Fractional & negative laws of indices - Standard form calculations - Calculating with surds - Rationalising the denominator Algebra 1: - Developing algebraic skills - Difference of two squares - Algebraic fractions - Nth term - Graphical inequalities Geometry & Data 1: - Vector notation and calculations - Translations - Reflections - Rotations - Enlargement		Number 2: - Developing all work on percentages - Growth and decay - Compound measures - Real life graphs - SDT calculations Algebra 2: - Developing skills with algebraic equations - Solving quadratic equations - Developing skills with simultaneous equations - Developing skills with rearranging formulae Geometry & Data 2: - Developing skills with area and volume - Developing skills with surface area - Developing skills with trigonometry		Number 3: - 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: - Averages - Collecting Data & Sampling methods - Bar charts, pictograms and line graphs - Pie charts - Scatter graphs - Cumulative frequency diagrams - Box and whisker diagrams - Histograms Number: - Rounding and Estimating - Properties of Number	

PE 4 units covered <i>Skills:</i> <i>Respect; Fair play and honesty;</i> <i>Embracing failure;</i> <i>Leadership;</i> <i>Rising to the challenge;</i> <i>Conflict resolution;</i> <i>Behaviour / Responsibility;</i> <i>Coping with pressure</i>	Tactics and strategies Team Challenges - House sport Team Sports - Netball, football, hockey, handball, rugby, etc.		Technique and performance Athletics Trampolineing Gymnastics Fitness		Motor competence Trampolineing Striking and fielding		OAA House Sport Team building activities OAA – Orienteering	
Computing 6 units covered <i>Skills:</i> <i>Computational Thinking;</i> <i>Problem Solving Analysis,</i> <i>Evaluation and Implementation;</i> <i>Technical Vocabulary;</i> <i>Digital Literacy & Communication</i>	Topic 1: Networks & Communication Students learn how computer networks enable devices to communicate and share resources. They explore LANs and WANs, network hardware, wired and wireless connections and common network protocols. Students also investigate how data travels across networks and the internet and consider security risks and appropriate protection measures.	Topic 2: Interface Design Students learn the principles of effective user interface design and how interfaces are developed for specific users and purposes. They explore layout, navigation, consistency, accessibility and usability alongside design conventions. Students consider how prototypes, user feedback and testing contribute to the development of successful interfaces.	Topic 3: Advanced Programming Students develop more advanced programming skills using Python. They explore structured programming techniques including lists, functions and procedures, modular program design, validation and testing. Students learn how larger programs can be broken into manageable components and refined through systematic testing.	Topic 4: Data Structures & Databases Students extend their understanding of databases by exploring more sophisticated methods of organising and retrieving information. They investigate relationships between tables, multi-table queries, reports and data integrity, and learn how relational structures improve the management of larger datasets.	Topic 5: Professional ICT & Documentation Students develop professional digital communication skills through creating workplace-style documents. They explore professional emails, formal letters, reports and CVs, considering how structure, formatting, audience, purpose and tone influence effective communication. They also develop proofreading and quality-assurance skills.	Topic 6: Digital Solutions Project Students apply knowledge and skills developed throughout KS3 to respond to a realistic digital brief. They learn how projects progress from requirements and planning through design and development to testing, refinement and evaluation, drawing on appropriate digital tools and techniques.		
DTA Rotation of 5 units	DT – Material Workshop - Polymers. Design context, working to a design brief,	DT – CAD/Graphics - CAD tools, research exploration, iterative processes and		DT – Textiles - Inserting pocket, drawstring and block printing. Taking account of	Art & Design - Formal elements, proportions, composition and portraiture.		Food & Nutrition - Where foods come from, specific dietary requirements and diet	

<i>Skills:</i> <i>Investigation;</i> <i>Analyse;</i> <i>Generate Ideas;</i> <i>Make; Evaluate</i>	client, user needs and purpose. Polymer recycling, the 6R's	emerging technologies.	user needs, functionality, purpose and material concerns when designing. How to use a step by step to retrieve decorative techniques.		across life.
---	---	------------------------	---	--	--------------