Year 8 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 of 5 *Skills: Scientific thinking; Experimental skills; Analysis and evaluation; Scientific vocabulary*	Digestion; The periodic table; Light	Breathing and respiration; Elements; Magnets and electromagnets	Evolution; Types of chemical reaction; Levers and Pressure	Inheritance; Energy change in reactions; Sound	Projects	
Geography 5 units covered *Skills: Knowledge; Understanding; Enquiry*	G1 Population - Growth; Impacts; The Future	G2 Coasts – Processes; Landforms; Management	G3 International Development – Indicators; Case Studies; Causes	G4 Weather and Climate Change – Causes; Measuring; Characteristics	G5 Asia and China – Countries; Physical; Human	
Maths 9 units covered *Skills: Number Place Value & Four Operations; Number FDP & Ratio; Measurement & Units; Geometry, Angles & Shapes; Statistics; Problem Solving & Investigations*	Number 1: • Rounding to significant figures • Bounds of errors • Laws of indices • Standard form • Simplifying surds Algebra 1: • Developing algebraic skills • Working with terms and expressions • Expanding double brackets • Expanding triple brackets • Factorising quadratic expressions Geometry & Data 1: • Area and perimeter of compound shapes • Area and circumference of circles • Volume of prisms, pyramids & spheres • Surface area of prisms • Pythagoras	Number 2: • LCM and HCF using prime factors • Use of venn diagrams • Developing percentages skills • Simple and compound interest • Reverse percentages Algebra 2: • Developing skills with algebraic equations • Solving equations with fractions • Forming and solving equations • Rearranging formulae • Simultaneous equations Geometry & Data 2: • Probability scales and language • Probability of a single event • Listing outcomes • Expectation • Tree diagrams and venn diagrams	Number 3: • Recurring decimal conversions • Developing ratio skills • Exchange rate calculations • Proportion, including graphically • Direct proportion, including algebraically Algebra 3: • Straight lines in four quadrants • Plotting linear graphs • Gradient and y-intercept • Equation of a straight line • Plotting quadratic graphs Geometry & Data 3: • Developing angles skills • Bearings using angle facts • Angles in polygons, interior and exterior • Right-angled trigonometry • Similarity and congruence		

PE **9 units covered** *Skills include: Empathy; Responsibility; Adaptability; Resilience*	Communication Basketball Netball Football Handball	Resilience Football Hockey Basketball HRF Handball	Embracing failure Rugby HRF Football Hockey	Leadership Rugby Hockey HRF Basketball	Behaviour Hockey Football Table tennis Trampolining Rugby	Responsibility Handball Table tennis Trampolining HRF Rugby	Coping with pressure Table tennis Trampolining Hockey Netball Handball Badminton	Asking questions Athletics	Conflict resolution Rounders Softball Cricket Tennis
DTA **Rotation of 5 units** *Skills: Investigation; Analyse; Generate Ideas; Make; Evaluate*	DT – Multi-Materials - Manufacturing processes and production, technical drawings and quality control.	DT – Graphic Products - Ergonomics, anthropometrics and emerging technologies. Design decisions and purpose/user needs	DT – Textiles - Developing sewing and machine skills. Printing processes and materials analysis. User needs. Revision of H&S.	Art & Design - Formal elements, colour, pattern and form. Annotated sketches and analysis	Food & Nutrition - Macronutrients, micronutrients, nutritional analysis.				