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 **5 units covered** *Skills include: Empathy; Responsibility; Adaptability; Resilience*	Communication Basketball (PE1) Netball (PE2) Football (PE3) Cricket (PE1) Rounders (PE2) Tennis (PE3)	Intra-Personal Skills Rugby (PE1) Football (PE2) Trampolining (PE3) Tchoukball (PE1) Trampolining (PE2) Handball (PE3)	Resilience HRF (PE1) Basketball (PE2) Tchoukball (PE3) Athletics (PE1) Athletics (PE2) Athletics (PE3)	K&U of Health & Wellbeing Handball (PE1) HRF (PE2) Rugby (PE3) Trampolining (PE1) Rugby (PE2) HRF (PE3)	
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.