

## Year 7 Sciences Curriculum Map

Subject/Term	Term 1 Knowledge	Term 2 Knowledge	Term 3 Knowledge	Term 4 Knowledge	Term 5 Knowledge	Term 6 Knowledge
<b>Science</b> <b>Rotation of 5</b> <i>Skills: Scientific thinking; Experimental skills; Analysis and evaluation; Scientific vocabulary</i>	<p>Cells Acids &amp; Alkalis Forces</p>	<p>Human reproduction Particle model Energy costs</p>	<p>Interdependence Separating mixtures Electricity</p>	<p>Variation Metals &amp; non-metals Friction &amp; energy</p>	<p>Movement Earth's structure Universe</p>	
<b>Geography</b> <b>5 units covered</b> <i>Skills: Knowledge; Understanding; Enquiry</i>	<p>G1 It's your planet - Origins; Life; Human</p>	<p>G2 Maps and The UK – Skills; Physical; Human</p>	<p>G3 Glaciers – Processes; Landscapes; Landforms</p>	<p>G4 Africa – Countries; Physical; Human</p>	<p>G5 Rivers and Floods – Processes; Landscapes; Landforms</p>	
<b>Maths</b> <i>Skills: Number Place Value &amp; Four Operations; Number FDP &amp; Ratio; Measurement &amp; Units; Geometry, Angles &amp; Shapes; Statistics; Problem Solving &amp; Investigations</i>	<p>Number 1:</p> <ul style="list-style-type: none"> <li>Ordering integers and decimals</li> <li>Working with negative numbers</li> <li>Four operations, including decimals</li> <li>Rounding to decimal places</li> <li>Working with fractions</li> </ul> <p>Algebra 1:</p> <ul style="list-style-type: none"> <li>Algebraic notation</li> <li>Collecting like terms</li> <li>Multiply &amp; divide expressions</li> <li>Substitution</li> <li>Expanding brackets</li> </ul> <p>Geometry &amp; Data 1:</p> <ul style="list-style-type: none"> <li>Properties of 2D and 3D shapes</li> <li>Perimeter of shapes</li> <li>Area of shapes (including circles)</li> <li>Volume of prisms</li> <li>Pythagoras introduction</li> </ul>		<p>Number 2:</p> <ul style="list-style-type: none"> <li>Properties of Number</li> <li>Products of Prime Numbers</li> <li>Percentage of an amount</li> <li>Percentage increase and decrease</li> <li>Writing numbers as percentages</li> </ul> <p>Algebra 2:</p> <ul style="list-style-type: none"> <li>Writing expressions</li> <li>Factorising</li> <li>Solve equations (two step and brackets)</li> <li>Solve equations (unknown on both sides)</li> <li>Forming and solving equations</li> </ul> <p>Geometry &amp; Data 2:</p> <ul style="list-style-type: none"> <li>Two-way tables</li> <li>Pie charts</li> <li>Scatter graphs</li> <li>Averages and range</li> <li>Mean and mode from a table</li> </ul>		<p>Number 3:</p> <ul style="list-style-type: none"> <li>Fraction, decimal &amp; percentage conversion</li> <li>Ordering FDP</li> <li>Ratio notation</li> <li>Sharing in a given ratio</li> <li>Proportion and unitary method</li> </ul> <p>Algebra 3:</p> <ul style="list-style-type: none"> <li>Working with sequences</li> <li>Finding nth term for linear sequences</li> <li>Inequality notation</li> <li>Solve inequalities (including negatives)</li> <li>Solve inequalities (unknown on both sides)</li> </ul> <p>Geometry &amp; Data 3:</p> <ul style="list-style-type: none"> <li>Angle terminology</li> <li>Scale drawings and constructions</li> <li>Angles in parallel lines</li> <li>Angles in polygons</li> <li>Bearings</li> </ul>	

<p><b>Computing</b> Skills: <i>Computational Thinking; Problem Solving; Analysis, Evaluation and Implementation; Technical Vocabulary</i></p>	<p>Intro to Computing - Students will study a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct and know how to report concerns.</p>	<p>Kodu - Students will learn how to undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users. They will make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions, design, use and evaluate computational abstractions that model the state and behaviour of real world problems and physical systems.</p>	<p>MicroBit - Students will learn how to use two or more programming languages, one of which is textual, to solve a variety of computational problems. As part of this they will learn how to make appropriate use of data structures; design and develop modular programs that use procedures and functions</p>	<p>Hardware - Students will study the hardware and software components that make up computer systems, and how they communicate with one another and with other systems. Understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds, and pictures) can be represented and manipulated digitally, in the form of binary digits; be able to convert between binary and decimal, and perform simple binary arithmetic.</p>	<p>Spreadsheets - Students will learn how to design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems.</p>	<p>Graphics - Students will study and understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits. They will learn how to create, re-use, revise and re-purpose digital artefacts for a given audience, with attention to trustworthiness, design and usability.</p>
<p><b>PE</b> <b>Rotation of 5 units</b> Skills: <i>Demonstrate; Analyse; Apply; Evaluate</i></p>	<p>Outwitting opponents: passing Defence / intercepting Attacking / shooting Basic rules of the game Movement</p>	<p>Racket sports: variety of shots Movement across court Rallying Basic rules of the game</p>	<p>Athletics: short distance / middle distance Jumps Throws How to measure and time</p>	<p>Striking and fielding: throwing and catching Fielding Basic rules of the game Hitting Bowling</p>	<p>Creative movement / fitness: choreography Routines Sequences Components of fitness Healthy lifestyles</p>	
<p><b>DTA</b> <b>Rotation of 5 units</b> Skills: <i>Investigation; Analyse; Generate Ideas; Make; Evaluate</i></p>	<p><b>DT: Multi-Materials</b> Materials and working properties, CAD/CAM and iterative design (design decisions)</p>	<p><b>DT: Graphic Products</b> Material classifications and working properties, papers and boards, CAD and iterative design.</p>	<p><b>DT: Textiles</b> Materials and working properties and iterative design. User needs and functionality. Health &amp; Safety.</p>	<p><b>Art &amp; Design</b> Formal elements and artist analysis.</p>	<p><b>Food &amp; Nutrition</b> Health &amp; Safety, introduction to the food room. Eatwell guide, 8 healthy eating tips, nutrients and food groups.</p>	