

## Science Curriculum Maps 2020-2021

### Key Stage 3

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	<p><b>Transition Content</b> <b>Introduction to Science skills</b></p> <ul style="list-style-type: none"> <li>Planning</li> <li>Analysing</li> <li>Identifying variables</li> <li>Graph work</li> </ul>	<p><b>Forces</b></p> <ul style="list-style-type: none"> <li>Balanced and unbalanced forces</li> <li>Speed</li> </ul> <p><b>Matter</b></p> <ul style="list-style-type: none"> <li>Physical and chemical properties</li> <li>Chemical changes</li> </ul> <p><b>Organisms</b></p> <ul style="list-style-type: none"> <li>The human body</li> </ul>	<p><b>Energy</b></p> <ul style="list-style-type: none"> <li>Energy changes between various stores</li> <li>Renewable and non-renewable energy resources</li> </ul> <p><b>Genes</b></p> <ul style="list-style-type: none"> <li>Variation</li> </ul>	<p><b>Earth</b></p> <ul style="list-style-type: none"> <li>Structure of the earth</li> <li>The rock cycle</li> <li>The solar system</li> </ul> <p><b>Electromagnets</b></p> <ul style="list-style-type: none"> <li>Electricity</li> </ul>	<p><b>Waves</b></p> <ul style="list-style-type: none"> <li>Properties of waves</li> <li>Reflection and refraction</li> </ul> <p><b>Ecosystems</b></p> <ul style="list-style-type: none"> <li>Food chains</li> <li>Competition</li> </ul> <p><b>Reactions</b></p> <ul style="list-style-type: none"> <li>Chemical Reactions</li> </ul>	Revision for end of year exams and Practical Skills
8	<p><b>Science Skills Review</b></p> <ul style="list-style-type: none"> <li>Provide evidence</li> <li>Carrying scientific investigations</li> </ul> <p><b>Organisms</b></p> <ul style="list-style-type: none"> <li>Respiratory and digestive systems</li> </ul>	<p><b>Genes</b></p> <ul style="list-style-type: none"> <li>Charles Darwin and natural selection</li> <li>Biodiversity</li> </ul> <p><b>Waves</b></p> <ul style="list-style-type: none"> <li>Properties of waves</li> <li>Reflection and refraction</li> <li>Radiation</li> <li>Electromagnetic spectrum</li> </ul>	<p><b>Matter</b></p> <ul style="list-style-type: none"> <li>Atomic structure</li> <li>The periodic table</li> </ul> <p><b>Reactions</b></p> <ul style="list-style-type: none"> <li>Conservation of mass</li> <li>Energy changes</li> </ul>	<p><b>Energy</b></p> <ul style="list-style-type: none"> <li>Energy changes</li> <li>Energy resources</li> <li>Transfer of energy</li> <li>Conduction, convection and radiation</li> </ul> <p><b>Electromagnets</b></p> <ul style="list-style-type: none"> <li>Magnetism</li> <li>Electricity</li> </ul>	<p><b>Forces</b></p> <ul style="list-style-type: none"> <li>Friction and drag</li> <li>Pressure in gases and liquids</li> </ul> <p>Ecosystems</p> <ul style="list-style-type: none"> <li>Respiration</li> <li>Photosynthesis</li> </ul> <p><b>Earth</b></p> <ul style="list-style-type: none"> <li>Earth's atmosphere</li> <li>Climate change</li> </ul>	Revision for end of year exams and Practical Skills
9	<p><b>Cell structure</b></p> <ul style="list-style-type: none"> <li>Structure and function of cells</li> </ul> <p><b>Atomic structure</b></p> <ul style="list-style-type: none"> <li>Particle model</li> </ul> <p><b>Conservation of energy</b></p> <ul style="list-style-type: none"> <li>Stores of energy</li> </ul>	<p><b>Transport between cells</b></p> <ul style="list-style-type: none"> <li>Transport methods</li> </ul> <p><b>The periodic table</b></p> <ul style="list-style-type: none"> <li>Groups 1, 7 and 0</li> </ul> <p><b>Dissipation of energy</b></p> <ul style="list-style-type: none"> <li>Energy in devices</li> </ul>	<p><b>Cell division</b></p> <ul style="list-style-type: none"> <li>Mitosis and meiosis</li> <li>Stem cell technology</li> </ul> <p><b>Structure and bonding</b></p> <ul style="list-style-type: none"> <li>Ionic, covalent and metallic substances</li> </ul> <p><b>Energy transfer by heating</b></p> <ul style="list-style-type: none"> <li>Insulating materials</li> </ul>	<p><b>Organisation and the digestive system</b></p> <ul style="list-style-type: none"> <li>Factors affecting enzyme rates of reactions</li> </ul> <p><b>Chemical calculations</b></p> <ul style="list-style-type: none"> <li>Relative masses and molar calculations</li> </ul> <p><b>Energy resources</b></p> <ul style="list-style-type: none"> <li>Generating electricity</li> </ul>	<p><b>Organising animals and plants</b></p> <ul style="list-style-type: none"> <li>Structure and function of the heart and lungs</li> </ul> <p><b>The Earth's resources</b></p> <ul style="list-style-type: none"> <li>Finite and renewable resources</li> </ul> <p><b>Molecules and Matter</b></p> <ul style="list-style-type: none"> <li>States of matter and changes of state</li> </ul>	Revision for end of year exams and Practical Skills