



# Department: Curriculum Map Key Stage 3



Term	Year 7*	Year 8*	Year 9*
Autumn Term 1	<p><b><u>Introduction to Science</u></b> – Exploring the safety rules in a lab, using safe procedures for using a Bunsen Burner; recognising hazards and control measures in the lab.</p> <p><b><u>7B1 - Cells and Reproduction</u></b> Comparing plant and animal cells, preparing slides of cells to view under a microscope, understanding how cells are organised in whole organisms, reproduction in plants and humans.</p>	<p><b><u>8B1 - Food, digestion and respiration</u></b> Understanding the components of a balanced diet and how the digestion system functions. Learning about the process of respiration as a life process for obtaining energy.</p>	<p><b><u>9B1 - Cells, Inheritance and selection</u></b> Revisiting the Cell Theory and cell specialisation to form the variety of organs and organ systems. Learning about how characteristics are inherited and how farmers use selective breeding.</p> <p><b><u>9C1 - Patterns of Reactivity and Environmental Chemistry</u></b> Using the idea of particles to explore a variety of chemical changes and understand why mass is conserved. Writing both word and symbol equations for a variety of chemical changes, including displacement reactions.</p>
Autumn Term 2	<p><b><u>7C1 - Particle model of solids, liquids and gases, and Solutions</u></b> Understanding the Particle Model and using it to explain how different states of matter behave. Also identifying elements, mixtures and compounds and explain their properties.</p>	<p><b><u>8C1 - Atoms and elements, and Compounds and mixtures</u></b> Looking at elements, mixtures and compounds using models and how they are utilised to produce new substances useful to us.</p>	<p><b><u>9P1 - Magnets and electromagnets and electricity production</u></b> investigating the nature of magnets and magnetic materials. Pupils will construct electromagnets and learn its importance for different uses, including in generation of electricity.</p> <p><b><u>9B2 - Fit and Healthy Micro-organisms and disease</u></b> Learning about elements of a healthy life style and assessing the impact of different diets, exercise, alcohol and smoking. Also understand the nature of microbes and how it leads to infections.</p>
Spring Term 1	<p><b><u>7P1 - Energy</u></b> Exploring different energy stores and transfers in everyday life; investigating the energy output from different food items and evaluating different energy resources</p>	<p><b><u>8P1 - Energy and Electricity</u></b> Construct circuits to explore current, voltage and resistance. Also investigate how static charge is produced and how this occurs all around us.</p>	<p><b><u>9C2 - Rocks and weathering and The rock cycle and Heating and Cooling</u></b> Exploring how different rocks are formed and how they fit into the rock cycle. Evaluating evidence supporting and refuting Global Warming.</p>

\* Classes operate on a carousel to avoid clashes of equipment.

<p><b>Spring Term 2</b></p>	<p><b><u>7B2 - Plants for Photosynthesis and Plants for Food</u></b>  Exploring the importance of plants in the environment and as a source of food. Understanding the life cycle of a flowering plant and the importance of pollinators</p>	<p><b><u>8B2 - Environment and feeding relationships, Ecological relationships</u></b>  Appreciate the complexity of inter-dependence in the environment and how food chains link up to form food webs. Evaluate the human impact on the balance in ecosystems</p>	<p><b><u>9P2 - Speeding up and Pressure and Moments</u></b>  Investigating how pressure varies in different everyday contexts. Also investigating factors that affect turning forces (moments).</p>
<p><b>Summer Term 1</b></p>	<p><b><u>7C2 - Simple Chemical reactions</u></b>  Using the Particle Model to explain simple chemical reactions in terms of re-arrangement of atoms to form new substances</p>	<p><b><u>8C2 - Acid, alkali and metal reactions</u></b>  Investigating the nature of acids, alkalis and neutral substances. Explore their reactions using practical procedures to identify products formed.</p>	<p><b><u>SATs revision –</u></b>  4 lessons revising Biology, Chemistry, Physics and applications concepts.   <b><u>GCSE – Unit Chemistry A (EDUQAS)</u></b>  Topics as per the specification  1 - Pure substances and mixtures.  2 - Particles and atomic structure  4 - Periodic table and properties of elements.</p>
<p><b>Summer Term 2</b></p>	<p><b><u>7P2 - Forces and space</u></b>  Comparing different forces in action in everyday contexts and how it acts on objects. Understanding how day/nights and seasons occur as well as appreciating the Solar System.</p>	<p><b><u>8P2 - Light, Sound and Hearing</u></b>  Investigate how light travels and using this to explain reflection and refraction. Exploring how sound waves travel through different substances and how this helps us to hear sounds.</p>	<p><b><u>GCSE – Unit Chemistry A (EDUQAS)</u></b>  Topics as per the specification  1 - Pure substances and mixtures.  2 - Particles and atomic structure  4 - Periodic table and properties of elements.</p>

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