



# Science



Archdiocese of Liverpool

## Curriculum intent:

We aim to provide a high-quality science education in sympathy with the Catholic ethos of the school. We believe that science provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils will be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils will be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena. They will be encouraged to understand how science can be used to explain what is occurring, predict how things will behave, and analyse causes.

## Year 7

	Content	Concepts and Skills
TERM 1	<p><b>Enquiry Processes</b></p> <p><b>Forces 1</b> – Speed &amp; Gravity</p> <p><b>Matter 1</b> – Particle Model &amp; Separating Mixtures</p> <p><b>Organisms 1</b> – Movement &amp; Cells</p>	<p><b>Enquiry processes:</b> asking scientific questions, planning investigations, drawing tables and graphs, analysing patterns in data, evaluating data</p> <p><b>Forces:</b> Using simple equations</p> <p><b>Matter:</b> Modelling states of matter, practical skills</p> <p><b>Organisms:</b> Understanding of how our body's function, modelling organ systems</p>
TERM 2	<p><b>Electromagnets 1</b> – Potential difference and resistance &amp; Current</p> <p><b>Waves 1</b> – Sound &amp; Light</p> <p><b>Reactions 1</b> – Acids and Alkalis &amp; Metals and Non-metals</p> <p><b>Genes 1</b> – Variation &amp; Human Reproduction</p>	<p><b>Electromagnets:</b> modelling scientific concepts, organising ideas and concepts</p> <p><b>Waves:</b> using equations, application of knowledge</p> <p><b>Reactions:</b> Handling data, drawing line graphs summarising information</p> <p><b>Genes:</b> Handling data, Probability, Percentages making connections from a range of contexts and personal experience</p>
TERM 3	<p><b>Energy 1</b> – Energy costs &amp; Energy transfer</p> <p><b>Earth 1</b> – Earth structure &amp; Universe</p> <p><b>Ecosystems 1</b> – Interdependence &amp; Plant reproduction</p>	<p><b>Energy:</b> Using equations, Percentages, Efficiency Cost of energy in a domestic context</p> <p><b>Earth:</b> Understanding the world around us Developing scientific theories</p> <p><b>Ecosystems:</b> Maths skills – rounding and estimation Percentages, Understanding the impact of changes in the environment Understanding how plants reproduce</p>

