

Curriculum Map Science

Overall curriculum intent	To develop independent, resilient and reflective learners with a passion for science
Literacy	To fully develop the literacy skills of our students to encompass both scientific and frequently used command words
Numeracy	To fully develop the numeracy skills of our students to encompass both magnitude and order
Assessment	To continuously improve on the exceptional academic achievement of the students in the external examinations.
Practical skills	To develop students that have acquired excellent practical skills, be able to interpret data and become analytical problem solvers.
Society	To develop students that have an understanding of the role they play in society and the impact they have on the environment in which they live
Preparation for future life	To inspire the next generation of scientists that are prepared for life beyond De La Salle

Year 7	Autumn term	Spring term	Summer term
All pupils study Science with 6 lessons a fortnight.	An introduction to science including safety, equipment and key skills. Life processes. Mixtures and separation. Energy. Sexual reproduction.	Acids/ alkalis. Current electricity. Muscles and bones. The particle model.	Forces. Ecosystems. Atoms, elements and compounds. Sound.
Year 8	Autumn term	Spring term	Summer term
All pupils study Science with 6 lessons a fortnight.	Combustion. Unicellular organisms. Fluids. The periodic table.	Food and nutrition. Light. Metals and their uses. Breathing and respiration.	Energy transfers. Rocks. Space Plants and their reproduction.
Year 9	Autumn term	Spring term	Summer term
All students continue to study science in year 9, with 6 lessons a fortnight.	Atomic structure and the periodic table. Motion. Cells. States of matter and separating techniques. Forces and motion.	Motion and forces. Key concepts in Biology. Bonding. Conservation of energy.	Energy. Cells and control. Waves.
Year 10 Combined science <i>Triple science</i>	Autumn term	Spring term	Summer term

<p>All students continue to study science in year 10 but now this is spread over 8 lessons a fortnight. At this point, pupils will decide on which science pathway, combined science or separate science. Separate science being an option choice carries an additional 5 lessons a fortnight.</p>	<p>Genetics. Acids and alkalis. Natural selection and genetic modifications. Calculations involving masses. Electrolysis, metals and reversible reactions.</p> <p><i>The brain and the eye.</i> <i>Mendel and missing alleles.</i> <i>Biological control.</i> <i>Sound waves</i> <i>Astronomy.</i></p>	<p>Radioactivity. Health and disease. Energy and work done. Groups in the periodic table. Rates of reaction.</p> <p><i>Nuclear energy</i> <i>Static electricity</i> <i>Transition metals, corrosion and alloys.</i></p>	<p>Plant structures and their functions. Electricity and circuits. Ecosystems and material cycles.</p> <p><i>Plant hormones</i> <i>Quantitative analysis.</i> <i>Fuel and chemical cells.</i></p>
<p>Year 11 Combined science <i>Triple science</i></p>	<p>Autumn term</p>	<p>Spring term</p>	<p>Summer term</p>
<p>All students continue to study science in year 11, spread over 8 lessons a fortnight. Separate science being an option choice carries an additional 5 lessons a fortnight.</p>	<p>Ecosystems. Rates of reaction. Animal coordination, control and homeostasis. Forces and matter.</p> <p><i>Pressure in fluids</i> <i>Homeostasis</i> <i>Organic chemistry</i> <i>Qualitative analysis and material science.</i></p>	<p>Exchange and transport in animals. Magnets and the motor effect.</p> <p><i>Diffusion</i> <i>Food security</i></p>	<p>This term is dedicated to the preparation of the students to complete their external examinations. This is an opportunity to revisit previous work and in particular, to complete any core practical activities that have been missed.</p>