

1c. Curriculum Overview: Science



SAINTS PETER AND PAUL
CATHOLIC HIGH SCHOOL

Year 7 Science			
Refer to	Term 1 – September to December	Term 2 – January to March	Term 3 – April to July
KS2/3 NC	<p><u>Changes of State</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Introduction to Science • States of matter and changes of state • Atoms, elements and compounds • Pure substances • Mixtures and Separation techniques • Filtration • Evaporation • Distillation • Chromatography <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Particle Model and Changes of state (AO1 recall) • FA2: Investigative skills – Separation Techniques • FA3: Chromatography (AO123) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform.</p> <p><u>Digestion</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Keeping healthy • Principles of organisation (digestive system) 	<p><u>Forces</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Contact/non-contact forces • Balanced/unbalanced forces • Forces between magnets • Forces due to static electricity • Distance-time relationship <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Forces (AO1 recall) • Aspire Assessment 1 <p><u>What are the standardised homework tasks?</u></p> <p>Educake is used as the standardised homework platform</p> <p><u>The Earth, Space and Waves</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • The Earth and the solar system • Gravity and weight • Waves and light <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: The Earth and Beyond (AO123) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>	<p><u>Reproduction</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Cells (specialised egg and sperm cells) • The human reproductive system • Puberty • Stages of the menstrual cycle • Fertilisation • Pregnancy • Needs of new-born babies <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Cells and Reproduction (AO1 recall) • FA2: Changes during puberty (AO123) • Aspire Assessment 2 <p><u>What are the standardised homework tasks?</u></p> <p>Educake is used as the standardised homework platform</p> <p><u>Reactivity</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Acids and alkalis • pH scale and neutralisation • Metals and their reactions • Exo and endothermic reactions • Reactivity of metals

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- The role of enzymes, bile and stomach acid
- Absorption
- Diffusion

What are the key standardised assessments?

- FA1: Food Tests and Burning Foods (AO1 recall)
- FA2: Digestive System and Enzymes (Extended writing)

What are the standardised homework tasks?

Educake is used as the standardised homework platform

What are the key standardised assessments?

- FA1: Neutralisation (Investigative Skills)
- FA2: Metal Reactivity (Investigative skills)

What are the standardised homework tasks?

Educake is used as the standardised homework platform

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Year 8 Science			
Refer to	Term 1 – September to December	Term 2 – January to March	Term 3 – April to July
KS3 NC	<p><u>Atoms and The Periodic Table</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Atoms, elements, compounds, mixtures • Dalton’s atomic model • The periodic table • Chemical reactions and groups of the periodic table <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: The Periodic Table (AO1 recall) • FA2: Atoms and Reactions (AO123) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p> <p><u>Cells and Plant Systems</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Microscopy • Animal and plant cells • Cell specialisation • Plant tissues, organs, systems • Photosynthesis • Reproduction in plants/insect pollination and food security <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Cells and organelles (AO1 recall) 	<p><u>Burning Fuels</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Combustion • Thermal decomposition • Fuels, energy resources and alternative energy resources • Pollutants, their sources and actions to reduce emissions • Greenhouse gases <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Combustion (AO1 recall) • Aspire Assessment 1 <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p> <p><u>Energy and Electricity</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Energy transfers • Energy transfer and Hooke’s Law • Efficiency • Heating and thermal equilibrium • Electrical energy • Calculation of fuel costs in the domestic context 	<p><u>Planet Earth</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Interdependence • Variation, adaptation, competition and natural selection • Biodiversity • The carbon cycle • Composition of the Earth and its atmosphere • The rock cycle • Earth as a source of limited resources • Properties of polymers, ceramics and composites <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • Aspire Assessment 2 • FA1: Interdependence (AO1 recall) • FA2: Adaptations (AO123) • FA3: Sampling (Investigative skills) • FA4: The Carbon Cycle (Extended writing) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>



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	<ul style="list-style-type: none">FA2: Structure of the Leaf (Extended/formative) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>	<ul style="list-style-type: none">Power ratings and link to fuel use and costMagnetism and electromagnetism <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none">FA1: Circuits (AO12)FA2: Resistance (AO123)FA3: Investigative Skills - Electromagnets <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>	
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Year 9 Science			
Refer to	Term 1 – September to December	Term 2 – January to March	Term 3 – April to July
KS3 NC and GCSE Specification	<p><u>Effects of Exercise</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Digestive system (recap) • Respiratory system • Skeletal and muscular systems • Aerobic respiration • Anaerobic respiration and fermentation • The heart • The effects of exercise • Health and the effects of recreational drugs <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Digestion (AO123) • Aspire Assessment 1 • FA2: Effects of Exercise (AO123) • Aspire Assessment 1 <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p> <p><u>Forces and Motion</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Forces • Moments and levers • Pressure and hydraulics 	<p><u>Inheritance</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Cell structure and genetic material • Model of chromosomes, genes and DNA (including the work of Watson, Crick, Wilkins and Franklin in the development of the DNA model) • Variation • Changes in the environment, natural selection and extinction • Maintaining biodiversity and the use of gene banks <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none"> • FA1: Inheritance (AO1 recall) • FA2: Reproduction, Variation and Inheritance (AO123) • Aspire Assessment 2 <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p> <p><u>Scientific Investigation Unit</u></p> <p><u>What are the students learning?</u></p> <p><u>What are the key standardised assessments?</u></p>	<p><u>GCSE TRANSITION AQA COMBINED SCIENCE TRILOGY</u></p> <p><u>Atomic Structure and the Periodic Table</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Atomic structure/development of the model atom • Development of the periodic table <p><u>What are the key standardised assessments?</u> FA1: Periodic Table and Atomic Structure</p> <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p> <p><u>GCSE TRANSITION AQA COMBINED SCIENCE TRILOGY</u></p> <p><u>Cell Biology</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> • Cell structure • Microscopy • Cell division, cancer • Transport in cells <p><u>What are the key standardised assessments?</u></p>



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	<ul style="list-style-type: none">Forces and elastic materials (including Hooke's Law) <p><u>What are the key standardised assessments?</u></p> <ul style="list-style-type: none">FA1: Hooke's Law InvestigationFA2: Forces and Elasticity (AO123) <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>	<p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>	<ul style="list-style-type: none">FA1: Required practical: using a microscopeFA2: Required practical: osmosis <p><u>What are the standardised homework tasks?</u> Educake is used as the standardised homework platform</p>
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