

## 1c. Curriculum Overview: Triple Science



SAINTS PETER AND PAUL  
CATHOLIC HIGH SCHOOL

| Year 10 Triple Science |   |   |   |
|------------------------|---|---|---|
| Refer to               | Term 1 – September to December  | Term 2 – January to March   | Term 3 – April to July  |
| GCSE Spec              | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Culturing microorganisms</li> <li>• Monoclonal antibodies</li> <li>• Plant disease</li> <li>• Plant hormones</li> <li>• Plant defences</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Monoclonal antibodies<br/>FA: Plant cells and Disease</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Properties of transition metals</li> <li>• Comparing transition metals with group 1</li> <li>• Bulk and surface properties of matter including nanoparticles</li> <li>• Sizes of particles and their properties</li> <li>• 4.2.4.2 Uses of nanoparticles</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Comparing Transition Metals with Group 1</p> <p>FA: Bulk and Surface properties of matter</p> | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Sexual and asexual reproduction</li> <li>• Cloning</li> <li>• The brain</li> <li>• The eye</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Cloning<br/>FA: The Eye</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Synthetic and naturally occurring polymers</li> <li>• Addition polymerisation</li> <li>• Condensation polymerisation</li> <li>• Amino acids</li> <li>• DNA and other naturally occurring polymers</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Addition Polymerisation<br/>FA: Naturally occurring polymers</p> <p><u>What are the standardised homework tasks?</u></p> | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Control of body temperature</li> <li>• Maintaining water and nitrogen balance</li> <li>• DNA structure</li> <li>• Theory of evolution</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Control of body temperature<br/>FA: DNA and Evolution</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Reactions of alkenes and alcohols</li> <li>• Structure and formulae of alkenes</li> <li>• Reactions of alkenes</li> <li>• Alcohols</li> <li>• Carboxylic acids</li> <li>• Identification of ions by chemical and spectroscopic means</li> <li>• Flame tests</li> <li>• Metal hydroxides</li> <li>• <b>Home learning:</b> Instrumental methods</li> <li>• Flame emission spectroscopy</li> </ul> |

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|  | <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Hazards and uses of radioactive emissions and of background radiation</li> <li>• Nuclear fission and fusion</li> <li>• Space physics</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Nuclear Fission and Fusion<br/>FA: Lifecycle of a Star</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> | <p>Educake is used as the standardised homework platform</p> <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Static electricity</li> <li>• Changes in momentum</li> <li>• Pressure in gases</li> <li>• Transformers</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Changes in momentum/Static Electricity<br/>FA: Transformers</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> | <p><u>What are the key standardised assessments?</u><br/>FA: Structure and formula of alkenes<br/>FA: Carboxylic Acids and Identification of Ions</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Loudspeakers</li> <li>• Induced potential</li> <li>• Uses of the generator effect</li> <li>• Microphones</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Loudspeakers<br/>FA: Microphones</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> |
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## 1c. Curriculum Overview: Triple Science



SAINTS PETER AND PAUL  
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| Year 11 Triple Science |   |  |  |
|------------------------|---|--|--|
| Refer to               | Term 1 – September to December  | Term 2 – January to March  | Term 3 – April to July   |
| GCSE Spec              | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Speciation</li> <li>• Decomposition</li> <li>• Impact of environmental change</li> <li>• Trophic levels in an ecosystem</li> <li>• Pyramids of biomass</li> <li>• Transfer of biomass</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Speciation<br/>FA: Ecosystems and Biomass</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Carbonates</li> <li>• Halides</li> <li>• Sulfates</li> <li>• Using concentration of solutions</li> <li>• Use of amount of substance in relation to volume of gases</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Carbonates, Halides and Sulfates<br/>FA: Use of amount of substance to calculate volume of gases</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Factors affecting food security</li> <li>• Farming techniques</li> <li>• Sustainable fisheries</li> <li>• The understanding of genetics</li> <li>• Role of biotechnology</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Intensive Farming<br/>FA: Understanding of Genetics</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Chemical cells and fuel cells</li> <li>• Titrations</li> <li>• Yield and atom economy of chemical reactions</li> <li>• Percentage yield</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Chemical cells and Fuel cells<br/>FA: Percentage Yield and Atom Economy</p> | <p><b><u>Biology</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Role of biotechnology</li> </ul> <p><u>What are the key standardised assessments?</u><br/>FA: Role of Biotechnology</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><b><u>Chemistry</u></b></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Using materials</li> <li>• The Haber process and NPK fertilisers</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: The Haber Process and NPK Fertilisers</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> |

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|  | <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Moments, levers and gears</li> <li>• Pressure and pressure differences in fluids</li> <li>• Sound waves</li> <li>• Reflection of waves</li> <li>• Waves for detection and exploration</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Moments, Levers and Gears<br/>FA: Reflection of Waves</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> | <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Lenses</li> <li>• Visible light</li> <li>• Black body radiation</li> <li>• Absorption and emission of infrared radiation</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Lenses<br/>FA: Absorption and Emission of IR</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> | <p><u>Physics</u></p> <p><u>What are the students learning?</u></p> <ul style="list-style-type: none"> <li>• Perfect black bodies and radiation</li> </ul> <p><u>What are the standardised assessments?</u><br/>FA: Perfect Black Bodies and Radiation</p> <p><u>What are the standardised homework tasks?</u><br/>Educake is used as the standardised homework platform</p> |
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