

Year 10

ADVENT 1	ADVENT 2	REVIEW OF LEARNING DIRT & Summative	LENT 1	LENT 2	REVIEW OF LEARNING DIRT & Summative	PENTECOST 1	PENTECOST 2	REVIEW OF LEARNING DIRT & Summative
Unit Intent	Unit Intent	Assessments	Unit Intent	Unit Intent	Assessments	Unit Intent	Unit Intent	Assessments
<p>Particle Model of Matter Properties of Solids Liquids and Gases, specific and latent heat calculations.</p> <p>Organisation Digestive System Heart and Cardiovascular system, links to non-communicable disease.</p> <p>Bonding Describe covalent, ionic and metallic bonding. Link properties of materials to the nature of their bonding.</p>	<p>Particle Model of Matter Pressure in gases, determining density practically.</p> <p>Organisation Plant tissues including leaf structures, and wider transport systems in plants.</p> <p>Bonding Describing the various allotropes of carbon and linking the nature of their bonding structure to the properties they possess. Describe examples of polymers, giant covalent structures and giant ionic lattices.</p>	<p>EoU Particle Model EoU Organisation EoU Bonding</p>	<p>Atomic Structure Describe atom and isotope structure, properties of $\alpha\beta\gamma$ radiation, nuclear decay chains, half-life, fission vs fusion, background radiation.</p> <p>Infection and Response Communicable diseases caused by bacteria, viruses, protists and fungi. Human immune response to disease.</p> <p>Chemical Changes Describe various reactions including metals and oxygen, metals and acids, displacement reactions, redox reactions, neutralisation, etc.</p>	<p>Electricity Circuit components, series and parallel circuit rules, determining current, p.d. and resistance quantitatively.</p> <p>Infection and Response Development of medicines and vaccinations to treat disease.</p> <p>Chemical Changes Using electrolysis as a separating technique including the conditions for both aqueous and molten, and when both conditions would be used. Writing half equations.</p>	<p>EoU Atomic Structure EoU Infection & Response EoU Quantitative EoU Chemical Changes</p>	<p>Electricity I-V characteristics of common components, resistors that change with external stimulus, domestic electricity supply, national grid, and wiring plugs.</p> <p>Bioenergetics Photosynthesis and respiration, equations and factors that effect the conditions for both.</p> <p>Quantitative Chemistry Calculating moles based on mass of substances and RAM, determine limiting reactants, calculate percentage yield, atom economy, concentrations in liquids and volumes of gases.</p>	<p>Forces Comparing scalars and vectors. Distance & displacement time graphs, speed & velocity time graphs.</p> <p>Ecology (Practical Work) Use of transects and quadrats to determine populations of species.</p> <p>Energy Changes Draw the energy profile diagrams for exothermic and endothermic reactions. Determine a reactions energy profile from bond energy calculations.</p>	<p>EoU Bioenergetics EoU Energy Changes EoU Electricity</p> <p>End of Year 10 Mock Exams: Biology, Chemistry, Physics Paper 1</p>

(A)UTHENTIC

(S)ACRED

(P)ASSIONATE



(I)NSPIRATIONAL

(R)ESILIENT

(E)MPATHETIC

Examples of Catholic Social Teaching		
<p>Understanding scientific make informed decisions for the common good, considering environmental, social, and ethical implications.</p> <p>Bioenergetics: processes shared by all living organisms, emphasizes the interconnectedness of life on Earth.</p> <p>Quantitative Chemistry: reinforces the universality of science and the shared language used by scientists across the globe.</p>	<p>Chemical Changes: the need for global cooperation in addressing issues like pollution and climate change.</p> <p>Infection and Response: providing healthcare access and resources to those who are most vulnerable.</p> <p>The scientific method promotes critical thinking and logic which can be applied to analyse information and media regarding issues of conflict and injustice.</p>	<p>Energy Changes: Understanding the limitations of fossil fuels and the potential of renewable energy sources promotes concern for energy security and access for all.</p> <p>Chemical Changes: Learning about the properties of different materials can inform discussions about using environmentally friendly alternatives in construction and product development.</p>
Careers		
<p>Materials Engineer Medicine Cardiologist Allergist Gastroenterologist Pulmonologist Engineer</p>	<p>Pathologist Oncologist Haematologist Immunologist Vaccine Scientist Electrician Electrical Engineer Mechanical Engineer Radiologist Health and Safety Officer Industrial Chemical Engineer Petroleum Engineer</p>	<p>Botanist Pulmonologist Environmentalist Materials Engineer Mechanical Engineer Construction Astronaut</p>

Understanding scientific make informed decisions for the common good, considering environmental, social, and ethical implications.

Bioenergetics: processes shared by all living organisms, emphasizes the interconnectedness of life on Earth.

Quantitative Chemistry: reinforces the universality of science and the shared language used by scientists across the globe.

Chemical Changes: the need for global cooperation in addressing issues like pollution and climate change.

Infection and Response: providing healthcare access and resources to those who are most vulnerable.

The scientific method promotes critical thinking and logic which can be applied to analyse information and media regarding issues of conflict and injustice.

Energy Changes: Understanding the limitations of fossil fuels and the potential of renewable energy sources promotes concern for energy security and access for all.

Chemical Changes: Learning about the properties of different materials can inform discussions about using environmentally friendly alternatives in construction and product development.

Careers		
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Materials Engineer
Medicine
Cardiologist
Allergist
Gastroenterologist
Pulmonologist
Engineer

Pathologist
Oncologist
Haematologist
Immunologist
Vaccine Scientist
Electrician
Electrical Engineer
Mechanical Engineer
Radiologist
Health and Safety Officer
Industrial Chemical Engineer
Petroleum Engineer

Botanist
Pulmonologist
Environmentalist
Materials Engineer
Mechanical Engineer
Construction
Astronaut