



HT1:	HT2:	Assessment	HT3:	HT4:	Assessment	HT5	HT6:	Assessment
<p>INTENT Particle Model of Matter 6.3 We learn how the particle model is widely used to predict the behaviour of solids, liquids and gases and how this has many applications in everyday life.</p> <p>Link to KS3 forces and solids, liquids and gases. CL- Deep Sea Diver Materials Researcher, Engineer, Jeweller.</p> <p>Cell Biology 4.1 We explore how structural differences between types of cells enables them to perform specific functions within the organism.</p> <p>Taught before</p>	<p>INTENT Atomic Structure and the Periodic Table 5.1 We learn how arrangement of elements in the modern periodic table can be explained in terms of atomic structure which provides evidence for the model of a nuclear atom with electrons in energy levels.</p> <p>Link to particles CL- Research Scientist, Chemist.</p> <p>Bonding, Structure and Properties of Matter 5.2 We use theories of structure and bonding to explain the physical and chemical properties of materials.</p>	<p>Students will be assessed by a series of end of topic tests followed by a larger interleaved assessment at the end of the term</p>	<p>INTENT Organisation 4.2 We learn about the human digestive system which provides the body with nutrients and the respiratory system and circulatory system that provides it with oxygen and removes waste. We will also learn how the plant's transport system is dependent on environmental conditions to ensure that leaf cells are provided with what they need for photosynthesis.</p> <p>CL- Dietitian Cardiologist, Vet, Nutritionist, Phlebotomist, Surgeon.</p> <p>Bioenergetics 4.4 We explore how plants harness the Sun's energy in photosynthesis in order to make food. We also explore aerobic vs</p>	<p>INTENT Electricity 6.2 We learn about electrical charge and current in series and parallel circuits. We also learn about the domestic uses of electricity and how it is supplied.</p> <p>Link to electrons in 5.1 CL- Electronic and Electrical Engineer.</p> <p>Chemical Changes 5.4 We learn about the extraction of important resources from the earth makes use of the way that some elements and compounds react with each other and how easily they can be 'pulled apart'.</p> <p>Link to ionic bonding in 5.2 CL- Quarry Engineer, Geoscientist.</p>	<p>Students will be assessed by a series of end of topic tests followed by a larger interleaved assessment at the end of the term</p>	<p>INTENT Infection and Response 4.3 We study the pathogens which cause infectious disease in plants and animals</p> <p>Link to photosynthesis in 4.4 CL- Pathologist, Doctor, Lab researcher.</p> <p>Quantitative Chemistry 5.3 We use quantitative analysis to determine the formulae of compounds and the equations for reactions. CL- Pharmacist and Chemical Engineer.</p> <p>Energy Changes 5.5 We learn that energy changes are an important part of chemical reactions. The interaction of particles often involves transfers of energy due to the</p>	<p>INTENT Atomic Structure 6.4 We revisit the structure of the atom and how this links to ionising radiation.</p> <p>Recap bonding Recap DNA from cell biology CL- Medical Physicist, Radiographer, Radiation Protection Practitioner.</p>	<p>Students will be assessed by a series of end of topic tests followed by a larger interleaved assessment at the end of the term</p>

CURRICULUM MAP – Year 10 COMBINED SCIENCE

Each topic will cover the key enquiry processes, relevant maths skills and cultural capital. See corresponding schemes of work for more detail.



ST JAMES'
CATHOLIC HIGH SCHOOL

KEY
Biology
Chemistry
Physics

<p>ionising radiation. CL – Animal Technician, Biologist, Botanist, General Practitioner (GP), Hospital Doctor, Pharmacologist.</p>	<p>CL- Materials Engineer, Nanotechnologist, Research and Development Manager.</p> <p><u>Energy 6.1</u> For the students to look at the different types of energy store, observe in everyday examples how they can be transferred and calculated and investigate the main energy resources.</p> <p>Link to KS3 energy resources CL- Energy Engineer, Oceanographer, Hydrologist.</p>		<p>anaerobic respiration.</p> <p>Link to balancing equations from Chem CL- Farmer, Gardener, Sports Athlete.</p>			<p>breaking and formation of bonds.</p> <p>Link to bioenergetics as examples of endothermic and exothermic reactions CL- Energy Engineer.</p>		
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