

## RECOVERY CURRICULUM MAP – Year 9 2021-2022

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

HT1:	HT2:	Assessment	HT3:	HT4:	Assessment	HT5	HT6:	EOY Assessment
<p><b>INTENT</b> <u>Earth's Atmosphere (recovery)</u> <i>Recap Y7 energy resources. Explore the atmosphere and how humans have impacted on the environment and the Earth's climate. Evaluate causes and effects of global warming.</i> CL – Climate Scientist, Energy Analyst</p> <p><u>Plants and their reproduction (recovery)</u> <i>Recap Y7 animal reproduction. Pupils learn about the classification system of plants and how they adapt to survive. The reproductive cycle of plants from pollination to seed dispersal. Practically investigate plant</i></p>	<p><b>INTENT</b> <u>Reactions of metals</u> <i>Recap Y7 metals and non-metals. Determine the reactivity of metals and use the reactivity series to predict the outcome of their reactions.</i>  <b>Enquiry – reactions of metals</b> CL - Metallurgist, Welder</p> <p><u>Growing Our Food</u> <i>Recap Y8 repro in plants. Know the structure and adaptations of a plant. Understand photosynthesis and the nutrients needed for growth and how these processes link in with the carbon cycle</i></p>	<p>Pupils will be assessed on interleaved content and the following enquiry processes. Interpret data to find a pattern and make a conclusion. Draw a line of best fit on a line graph. Suggest ways of improving a practical investigation. Make a risk assessment in an investigation.</p>	<p><b>INTENT</b> <u>Forces and Motion</u> <i>Recap Y7 Forces. How forces can affect motion (Speed and acceleration) Pupils will also investigate forces and moments and be introduced to the concept of 'work'</i>  <b>Enquiry – calculating speed</b> CL - Aerospace Engineer, Renewable Energy Specialist, Automotive Engineer, Builder, Electrician, Plumber</p> <p><u>Genetics and Evolution</u> <i>Recap Y7 cells. Understanding inheritance, chromosomes, DNA and genes</i></p>	<p><b>INTENT</b> <u>Electricity and Magnetism</u> <i>Recap Y7 Electricity. Pupils will understand magnets, magnetism and the interactions between magnetism and electricity.</i>  <b>Enquiry – strength of electromagnets</b> CL – Mechanic, Electrician, Crane Operator</p> <p><u>Body Systems</u> <i>Recap Y7 cells. Know how tissues and organs interact to form the major body systems.</i> CL- Dietician Physiotherapist</p>	<p>Pupils will be assessed on interleaved content and the following enquiry processes.  Explain the effect of experimental error, and of not controlling all the variables. Explain how to collect and record accurate and precise data. Calculate a mean for repeat readings Use the correct graph to display the data collected.</p>	<p><b>INTENT</b> <u>Energy</u> <i>Recap Y7 energy resources. Pupils learn how to calculate fuel uses and costs in the domestic context e.g. comparing power ratings of different appliances</i>  <b>Enquiry – interpreting graphs to identify the best energy resource</b> CL - Renewable Energy Consultant, National Grid Technician</p> <p><u>Chemical Energy Changes</u> <i>Recap atoms, elements, molecules, and the atmosphere. Pupils recognise chemical and physical reactions and classify reactions as exothermic or</i></p>	<p><b>INTENT</b> <u>Fluids</u> <i>Recap Y7 particles Model. How pressure affects solids, liquids and gases. Investigate changes of state and resistive forces in fluids. Understand the anomaly of ice-water transition. Explain energy in matter.</i>  <b>Enquiry – density, floating and sinking</b> CL - Fluid Dynamic Engineer, Deep Sea Diver</p> <p><u>Materials and their Uses</u> <i>Recap Y8 rocks. Understand how ceramics, polymers and composites are made and used. Life cycle assessments and potable water.</i></p>	<p>End of Year Interleaved assessment covering content from Year 7-9 and the following enquiry processes.  Plot data on a graph and draw the line of best fit. Analyse data, make a conclusion and describe relationships. Suggest alternative explanations where appropriate.</p>



<p><b>structures and functions.</b></p> <p>Enquiry - dissecting a flowering plant CL – Botanist, Gardener, Farmer</p>	<p>Enquiry – starch test CL – Herbicide Chemist, Gardener, Renewable Engineer</p>		<p>Enquiry - extracting DNA from fruit CL – Geneticist, Genetic Counsellor, Farmer, Zoologist</p>			<p>endothermic. Apply the conservation of mass and relate it to balancing equations and RFM CL – Analytical Chemist</p>	<p>Enquiry – making slime CL – Water, Waste and Composite Engineer</p>	
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