

CURRICULUM MAP – Year 8

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

HT1:	HT2:	Assessment	HT3:	HT4:	Assessment	HT5:	HT6:	EOY Assessment Point
<p>INTENT</p> <p><u>Atoms, elements and molecules</u> Recap Y7 Particles. Name elements and compounds and understand the properties of elements. Use symbols and formulae of elements and compounds. CC – Composition of air we breathe <u>Food and Nutrition</u> Recap Y7 Fit and Healthy and Cells. Balanced diets and the importance of leading a healthy lifestyle. Why the body needs specific nutrients. The process of digestion and evaluating the varied diets which we are exposed to in the media. CC: effects of various diets on the body & the environment. Vegan / vegetarian diets. Enquiry – food tests</p>	<p>INTENT</p> <p><u>Light</u> Recap Y7 Sound. How light waves travel and how they are detected. Investigating reflection and refraction and what happens to light when it passes through a prism. CC: Uses of light reflection e.g. periscopes, reflectors on cyclists etc. <u>Refraction links to correction of vision.</u> Enquiry – law of reflection</p> <p><u>Earth and Rocks</u> How the Earth was formed and the different structures within the Earth itself. The rock cycle and rock types. <u>Link to Y7 acids.</u> CC: Mining of building materials. Sink holes, volcanic eruptions.</p>	<p>Assessment 1 – interleaved content from HT1 and HT2 and Year 7 content</p> <p>Formative Assessments to assess the Enquiry Processes <u>Collecting, recording and presenting data</u></p> <ul style="list-style-type: none"> - Describe how to make and record observations and measurements. - Calculate a mean from three repeat measurements. - Present data appropriately as tables and graphs. 	<p>INTENT</p> <p><u>Breathing and respiration</u> Recap fit and healthy. The structure and function of the respiratory system and the processes involved in the 2 types of respiration CC: Importance of exercise and the impact on your health. Effect of smoking on health. Enquiry – fatigue</p> <p><u>Heating and Cooling</u> Energy transfers of conduction, convection and radiation in different materials, <u>linking to particles Y7.</u> CC: Impact of insulating your home on finances and the environment. Design of household objects to reduce / increase energy transfer. Link to materials and their uses. Enquiry – insulation investigation</p>	<p>INTENT</p> <p><u>The periodic table</u> Link to atoms and elements. How the PT is arranged and how this arrangement holds clues to the properties of the elements in it. Explaining why elements in similar groups react in similar ways. CC: Understand the work of historical scientists. Enquiry – patterns of reactivity</p> <p><u>Unicellular organisms</u> Recap Y7 Cells and Fit and Healthy. Explore the differences between multicellular and unicellular organisms including examples and link to disease CC: Use of Unicellular organisms to produce foodstuff. Y8 HPV vaccination</p>	<p>Assessment – interleaved content from HT1 to HT4 AND Year 7 content</p> <p>Formative Assessments to assess the Enquiry Processes</p> <ul style="list-style-type: none"> - Describe how scientists develop an idea into a question that can be investigated. - Identify independent, dependent, and control variables. - Suggest ways to investigate different types of enquiry <p>Describe how to write a plan for an investigation.</p> <ul style="list-style-type: none"> - Describe how to produce accurate and precise data, and reduce experimental error. - Describe a risk assessment question 	<p>INTENT</p> <p><u>Earth and Space</u> Recap Y7 Forces Explore how stars and planets have formed. Learn about how our ideas of the solar system have changed over time. Use models to explain the movement of planets and moons and why we have years, day and night, seasons. Explain how our solar system and universe can be explored. Apply the force equation for gravity and know the light year as a unit of astronomical distance CC: Jodrell Bank. School visit from Starchaser</p> <p>Enquiry – how orbital distances affect year length</p>	<p>INTENT</p> <p><u>Earth's Atmosphere</u> 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. CC: Scientists are working hard to combat climate change. Limits to the use of fossil fuels and global warming are critical problems for this century.</p> <p><u>Plants and their reproduction</u> Recap animal reproduction and respiration.. The reproductive cycle of plants from pollination to seed dispersal. Practically investigate plant structures and functions. CC: Biodiversity of plants in the local areas.</p>	<p>End of Year Interleaved assessment covering content from Year 7 and HT 1 - 6</p> <p>Formative Assessments to assess the Enquiry Processes Find a pattern in data using a graph or chart, and draw a line of best fit on a line graph. - Interpret data to draw conclusions using scientific explanations</p> <p>Describe the stages in evaluating the data. - Suggest ways of improving a practical investigation.</p>