

Term	Week	Focus	Summary	Learning Outcomes	Learning skills
Term 1.1	1 and 2	Introduction to Science	Expectations HPL in Science Lab Safety Detergent Investigation Detergent Analysis and Report Self-Assessment of Report and Feedback	Summarise the key expectations in Science Apply your knowledge to identify dangers in the lab Construct a set of lab safety rules Use your knowledge to identify variables Choose the correct titles for a scientific table Collect results from a scientific investigation	Learners will use this week to remember key safety skills and expectations that will be required throughout Year 8. Through practice, learners will embed these rules and routines into every Science lesson (VAA Hardworking).
	3	Biology: Disease	Prokaryotic Cells Communicable Disease Stopping the Spread Investigation	Use your knowledge to identify prokaryotic cells Draw and label a prokaryotic cell Compare prokaryotic cells and eukaryotic cells Use your knowledge to define key terms Interpret information to identify what causes the spread of communicable diseases Outline Semmelweis findings. Use your knowledge to identify variables. Construct a scientific table. Collect results from a scientific investigation.	Learners demonstrate the ability to approach a new learning strategy while interpreting diagrams regarding cells to connect to theory (ACP Metathinking). Learners will need to use their logical thinking to compare different types of cells and draw connections between the spreading of communicable diseases (ACP Analysing).
	4	Biology: Disease	Stopping the Spread Analysis Treating Communicable Diseases	Justify the type of graph for a set of results. Draw a graph of your results. Interpret the graph you have drawn.	



	5	Biology: Disease Biology: Digestion	Disease Retrieval Food Groups	Evaluate your knowledge of the Disease topic Use your knowledge to recall different food groups Relate the food group to the body's need Design a diet plan for people with different needs	Learners will have the opportunity to self-evaluate their knowledge by using their knowledge to create responses to retrieval questions about Diseases (ACP Metathinking).
	6	Biology: Digestion	Energy in Food Investigation Energy in Food Analysis The Digestive System	Use your knowledge to identify variables. Construct a scientific table. Collect results from a scientific investigation. Justify the type of graph for a set of results. Draw a graph of your results. Interpret the graph you have drawn. Use your knowledge to define digestion Interpret a diagram to label the digestive system. Write a story about the journey of a cheese sandwich	Learners will have the opportunity to approach this new investigation while connecting it to their existing knowledge of food groups to determine a suitable approach to the task (ACP Metathinking). Learners will be seeking general conclusions about energy in foods that can be applied to real world scenarios (ACP Linking).
	7	Biology: Digestion	Helping our Digestion Digestion Retrieval	Interpret information to define an enzyme. Relate the structure of an enzyme to its function. Justify the importance of bacteria in digestive system. Evaluate your knowledge of the Digestion topic	Learners will demonstrate their independence while exploring different resources to define enzymes and relate their structure to their function (VAA Agile). Through revision for Digestion retrieval, learners will have the opportunity to demonstrate their perseverance when answering challenging questions to assess their learning and be flexible when applying their knowledge to new



					and unfamiliar scenarios (VAA Hardworking and Agile).
Term 1.2	1	Biology Staying Alive	Levels of Organisation Breathing Respiration	<p>Use your knowledge to define key terms. Interpret information to identify cells, tissues, organs, organ systems and organisms. Create a diagram to illustrate the levels of organisation.</p> <p>Apply your knowledge to label the respiratory system. Outline how gases move into and out of the lungs. Create a leaflet to explain how smoking affects the body.</p> <p>Distinguish between respiration and breathing. Write the word equations for aerobic and anaerobic respiration. Justify when we respire aerobically or anaerobically.</p>	Learners will need to sketch and label diagrams of cells, tissues etc. and illustrate the levels of organization (ACP Creating). Learners will need to seek connections to real life examples to discuss the individual steps during breathing and environmental impacts that can have a negative effect on lung health (ACP Linking).
	2	Biology Staying Alive	Photosynthesis Photosynthesis Analysis	<p>Use your knowledge to define photosynthesis. Write the word equation for photosynthesis. Design an investigation into photosynthesis.</p> <p>Justify the type of graph for a set of results. Draw a graph of your results. Interpret the graph you have drawn.</p>	Learners will be developing their ability to present their data in the form of a graph. Learners will be aiming to construct scale and plot points with speed and accuracy (ACP Realising). Learners will be testing their hypothesis to construct a valid conclusion supported by evidence from their practical, possibly having to review and change their opinions (ACP Creating and Analysing).



	<p>3</p>	<p>Biology Staying Alive Biology: Human Impact</p>	<p>Staying Alive Retrieval Evolution</p>	<p>Evaluate your knowledge of the Staying Alive topic</p> <p>Use your knowledge to define evolution Interpret information to explain Darwin's theory of evolution Evaluate the use of fossils as evidence of evolution</p>	<p>Through revision for Staying Alive retrieval, learners will have the opportunity to demonstrate their perseverance when answering challenging questions to assess their learning and be flexible when applying their knowledge to new and unfamiliar scenarios (VAA Hardworking and Agile). Learners demonstrate the ability to approach a new topic by drawing connections to past topics covered in Science (ACP Linking).</p>
	<p>4</p>	<p>Biology: Human Impact</p>	<p>Speciation Human Population Global Warming</p>	<p>Use your knowledge to define adaptation and competition Outline how speciation occurs Interpret information to define species.</p> <p>Interpret a graph on human population growth. Outline how humans are sustaining such a large population and their impact on the environment. Justify how farming could be made more ethical and environmentally friendly</p> <p>Create a diagram to explain global warming Distinguish between global warming and the greenhouse effect. Argue how we can combat global warming.</p>	<p>Learners will have the opportunity to critically discuss the human population growth and the impacts this has on future generations (VAA Empathetic). Learners will need to use their knowledge across other subjects to explain the effects of global warming and evaluate effective ways to combat global warming (VAA Agile).</p>



	5	Biology: Human Impact	Human Impact Retrieval	Evaluate your knowledge of the Human Impact topic	Through revision for the Biology synoptic, learners will have the opportunity to demonstrate their perseverance when answering challenging questions to assess their learning and be flexible when applying their knowledge to new and unfamiliar scenarios (VAA Hardworking and Agile). Learners will need to use their generalisations constructed during the term to support their answering of the questions while finding connections between content and skills across the Biology topics (ACP Linking).
	6	Biology Retrieval	End of Term Retrieval of all Biology and Feedback	<p>The success criteria explored for the Biology term will be assessed</p> <p>Evaluate your knowledge of the Biology content explored</p> <p>Determine the skill (Recall, Application, HSW, Maths) that is your area of strength and area of development to inform focus for next term</p> <p>Analyse your performance for each of the HPL Skills to determine your area of strength and area of development to inform focus for next term</p>	Through revision for Biology retrieval, learners will have the opportunity to demonstrate their perseverance when answering challenging questions to assess their learning and be flexible when applying their knowledge to new and unfamiliar scenarios (VAA Hardworking and Agile). Learners will need to use their generalisations constructed during the term to support their answering of the questions while finding connections between content and skills across the Biology topics (ACP Linking).



	7	Planning an investigation	Planning Practical Present	<p>Write a risk assessment Construct a table Collect results from a scientific investigation</p> <p>Draw a graph of your results. Interpret a graph of your results. Evaluate your scientific investigation</p> <p>Create a presentation of your scientific investigation. Outline your investigation to an audience. Evaluate a peer's investigation.</p>	Learners will demonstrate their curiosity while exploring biological concepts through the practical investigation and challenging the conclusions drawn in the theory lessons (VAA Agile). Learners will develop their abilities to collaborate with their peers when completing the practical investigation by reviewing the strategy, considering the steps to complete successfully and be willing to listen to the views of their team (VAA Empathetic).
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