

Term	Week	Focus	Summary	Learning Outcomes	Learning skills
Term 1.1	1	Importance of Water in Transport Carbohydrates: Structure and Function	Understanding the importance of water as a solvent in transport, including its dipole nature. Differentiating between monosaccharides, disaccharides, and polysaccharides. Relating their structures to energy storage.	Understand the significance of water as a solvent in transport. Discuss its properties and role in various biological processes. Learn the structures and roles of different carbohydrates. Understand the formation and breakdown of glycosidic bonds.	Critical thinking, Analytical skills, Data analysis, Problem-solving
	3	Practical: Testing for Reducing Sugars and Starch	Conducting semi-quantitative tests using Benedict's reagent and iodine solution to estimate concentrations of sugars.	Develop practical skills in testing for reducing sugars and starch. Understand the principles and limitations of colorimetric analysis.	Scientific inquiry, Experimental design
	4	Carbohydrates: Hydrolysis and Synthesis	Understanding the hydrolysis and synthesis of carbohydrates. Exploring glycosidic bonds and their formation/breakdown.	Learn how monosaccharides join to form disaccharides and polysaccharides through condensation reactions and the hydrolysis process.	Information literacy, Data interpretation
	5	Lipids: Structure and Saturated/Unsaturated Distinction	Examining the structure of lipids and distinguishing between saturated and unsaturated lipids.	Understand the synthesis of triglycerides and the differences between saturated and unsaturated lipids. Explore the structure-function relationship.	Critical analysis, Ethical reasoning
	6	Retrieval practise	Application of knowledge gained throughout topic.	Evaluate knowledge of all content from the cells topic and apply it to different retrieval tasks.	Critical thinking, Analysis, Recall, Mathematical skills
	7	Heart and Circulation: Adaptations and Cardiac Cycle	Understanding why animals have a heart and circulatory system. Exploring the structures and functions of blood vessels.	Learn about the adaptations of the mammalian heart and blood vessels. Understand the cardiac cycle and its relationship to heart function.	Teamwork, Collaboration

Term 1.2	1	Heart Structure and Dissection	Investigating the structure of a mammalian heart through dissection.	Develop practical skills in heart dissection and observation. Understand the correlation between heart structure and its function.	Scientific inquiry, Observation skills
	2	Hemoglobin and Oxygen Transport	Understanding the role of hemoglobin in oxygen and carbon dioxide transport. Analysing the oxygen dissociation curve.	Learn about the structure and function of hemoglobin. Explore the factors affecting oxygen affinity and the significance of fetal hemoglobin.	Critical thinking, Scientific communication
	3	Atherosclerosis and Cardiovascular Disease Blood Clotting and Cardiovascular Disease	Exploring the process of atherosclerosis and its role in cardiovascular disease. Understanding the process of blood clotting and its relevance to cardiovascular disease.	Understand the development of atherosclerosis and its impact on cardiovascular health. Investigate risk factors and their influence on CVD. Learn about the mechanisms of blood clotting and its implications in cardiovascular health. Analyse the relationship between clotting and CVD.	Problem-solving, Ethical reasoning, Analytical skills, Information synthesis
	4	Risk Factors and Prevention of Cardiovascular Disease Dietary Antioxidants and Cardiovascular Health	Examining the factors contributing to cardiovascular disease and strategies for prevention. Understanding the link between dietary antioxidants and cardiovascular disease.	Explore the risk factors associated with CVD, such as genetics, diet, lifestyle, and environmental factors. Discuss preventive measures and interventions. Learn about the role of dietary antioxidants in promoting cardiovascular health. Analyse scientific evidence and its implications for preventive measures.	Information literacy, Decision-making, Data analysis, Critical analysis
	5	Retrieval practise	Application of knowledge gained throughout topic.	Evaluate knowledge of all content from the cells topic and apply it to different retrieval tasks.	Critical thinking, Analysis, Recall, Mathematical skills
	6	Practical: Vitamin C Content Analysis	Conducting a practical investigation to estimate the vitamin C content of food and drink.	Develop practical skills in vitamin C analysis. Understand the principles of colorimetry and data interpretation.	Scientific inquiry, Experimental design

	7	Analysing Health Data and Risk Factors	Analysing and interpreting quantitative data on illness and mortality rates to determine health risks.	Learn how to analyse health data and distinguish between correlation and causation. Evaluate conflicting evidence and draw informed conclusions.	Data interpretation, Statistical analysis
	8	Study Design and Perceptions of Risk	Evaluating the design of studies used to determine health risk factors. Examining the perception of risk in different contexts.	Understand the principles of study design and data collection. Explore the factors influencing risk perception and their impact on health decisions.	Critical thinking, Research skills
		Retrieval practise	Application of knowledge gained throughout topic.	Evaluate knowledge of all content from the cells topic and apply it to different retrieval tasks.	Critical thinking, Analysis, Recall, Mathematical skills