



St Paul's International College Science Department

Scope and Sequence Stage 5 Year 9 2024

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10/11
Term 1 1	All Charged Up									
	Approximately 30 Hours									
	In this unit, students learn about the structure of the atom and how the models of the atom evolved through history as new discoveries were made, including the discovery of radioactivity. There will be a focus on why some nuclei are unstable and so are radioactive. The nature of electricity and its link to the electron is also examined including a discussion on how electricity is made from a non-renewable energy source and used in society.									
	Outcomes: SC5-1VA, SC5-4WS, SC5-6WS, SC5-7WS, SC5-8WS, SC5-10PW, SC5-16CW									
	Assessment: Summarising information from secondary sources, Research and presentation of an element, Using symbols to draw a circuit diagram, Stage 5 Individual Practical test to Create and investigate electrical circuits , Individual research and presentation of information about alternative energy sources.									
Term 2 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	
	Good Vibrations									
	Approximately 27 Hours									
	In this unit, students learn about heat and how heat can move from one place to another. Wave properties and wave motion are also examined. There is a comparison between how sound waves and light waves travel from one place to another. Light is examined in depth, with a careful focus on the different parts of the electromagnetic spectrum, their properties and uses.									
	Outcomes: SC5-1VA, SC5-4WS, SC5-6WS, SC5-7WS, SC5-8WS, SC5-10PW, SC5-11PW									
Assessment: Practical investigations into the nature of reading temperature, comparing conductivity in materials and testing insulators, Summarising material from secondary sources, Practical investigation into the laws of reflection and refraction, Practical investigation into curved mirrors.										



St Paul's International College Science Department
Scope and Sequence Stage 5 Year 9 2024

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Ter m 3	The Human Machine									
	Approximately 30 Hours									
	In this unit of work students learn about the coordination and control in the human body. The interaction between the digestive, respiratory, circulatory and excretory systems in providing cells with their needs and removing wastes is studied, along with the roles of nervous and endocrine systems in controlling the body and achieving homeostasis. Students also learn about motion. They learn to describe motion in terms of speed and acceleration as well as explaining why objects move as they do, using Newton's three Laws of Motion.									
	Outcomes: SC5-1VA, SC5-4WS, SC5-5WS, SC5-6WS, SC5-7WS, SC5-9WS, SC5-10PW, SC5-14LW									
	Assessment: Group research and presentations of posters and brochures, Section testing, Group planning and carrying out a practical investigation,									

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	
Ter m 4	The Savage World								
	Approximately 27 Hours								
	In this unit students learn about the savage world in which we live in. A world in which a natural event could, at any time, signal the end of the human race, our society and/or infrastructure. The theory of plate tectonics and the movement of the Earth's plates, which gives rise to the devastating effects of volcanoes and earthquakes, are investigated. Throughout history there are also incidents of disease that has threatened mankind on a global scale and so students also learn about the topics of infectious and non-infectious diseases. Students consider the global systems and the impact that disasters can have on these systems.								
	Outcomes: SC5-1VA, SC5-2VA, SC5-3VA, SC5-6WS, SC5-7WS, SC5-8WS, SC5-9WS, SC5-12ES, SC5-13ES, SC5-15LW								
	Assessment: Extracting and summarizing information from secondary sources, Term Test, Stage 5 Individual Research task/ writing piece on a natural disaster , Poster presentations on disease.								