

SCIENCE

STATUS:	CORE SUBJECT		
COURSE OVERVIEW:	<p>In Year 9, students consider the operation of systems at a range of scales. They explore ways in which the human body as a system responds to its external environment and the interdependencies between biotic and abiotic components of ecosystems. They are introduced to the notion of the atom as a system of protons, electrons and neutrons, and how this system can change through nuclear decay. They learn that matter can be rearranged through chemical change and that these changes play an important role in many systems. They are introduced to the concept of the conservation of matter and begin to develop a more sophisticated view of energy transfer. They begin to apply their understanding of energy and forces to global systems such as continental movement.</p>		
COURSE OUTLINE:	<p>Students will undertake studies in the following areas from the National Curriculum:</p> <ol style="list-style-type: none"> 1. <u>Biological Sciences</u> - which examines cells, body systems and ecosystems. 2. <u>Chemical Sciences</u> - which examines the topics of atomic structure, chemical equilibrium, acids and bases. 3. <u>Earth and Space Sciences</u> – which examines the theory of plate tectonics and its effects on the Earth. 4. <u>Physical Sciences</u> - which examines energy conservation in relation to sound, light and electricity. 		
COURSE ASSESSMENT:	<ul style="list-style-type: none"> • Extended Experimental Investigations – students will follow scientific method to design, implement and report on investigations. • Supervised Assessments – examination or response to stimulus task. • Extended Response – field report or research report. 		
STUDY REQUIREMENTS:	<p>20 min homework per night. Completion of Key Assessment Task work.</p>		
SPECIAL REQUIREMENTS:			
POSSIBLE CAREER PATHWAYS:	<p>Agronomist Biologist Oceanographer Electrician Radio Technician Architect Environmental Health Hydrologist Zoologist</p>	<p>Biochemist Microbiologist Veterinarian Mineralogist Physicist Ecologist Dentist Optometrist Doctor</p>	<p>Taxidermist Chemist Forensic Scientist Forest Ranger Pathologist Botanist Radiographer Bacteriologist Agricultural Scientist</p>
PARENT/CARER SUPPORT:	<p>Encourage an interest in Scientific and Environmental Issues. Monitor the completion of key assessment tasks.</p>		