

**YEAR 7 SCIENCE 2018**  
**SEMESTER 2 COURSE OUTLINE**

Week	Topic	Learning Focus	Victorian Curriculum Strands & Sub strands
1-5	Biology - Classification	<ul style="list-style-type: none"> <li>• Explain the role of classification in ordering and organising information describe the eight characteristics shared by all living things</li> <li>• Construct and read dichotomous keys</li> <li>• Explain the Five Kingdom classification system</li> <li>• State the Hierarchy of classification</li> <li>• Use scientific conventions for naming species</li> <li>• Explain the difference between a vertebrate and an invertebrate</li> <li>• Explain that vertebrates are sorted into five Classes – mammals, fish, birds, reptiles and amphibians</li> <li>• Dissect a trout</li> <li>• Identify the six main phyla of invertebrates</li> <li>• Classify plants into groups using a key</li> </ul>	<p>There are differences within and between groups of organisms; classification helps organise this diversity VCSSU091</p>
6 – 9	Biology - Ecosystems	<ul style="list-style-type: none"> <li>• Construct food chains to show feeding relationships in a habitat</li> <li>• Constructing and interpreting food webs to show relationships between organisms in an environment</li> <li>• Classify organisms of an environment according to their position in a food chain.</li> <li>• Recognise the role of microorganisms within food chains and food webs</li> <li>• Investigate the effect of human activity on local habitats, such as deforestation, agriculture or the introduction of new species.</li> <li>• Explore how living things can cause changes to their environment and impact other living things, such as the effect of cane toads</li> </ul>	<p>Interactions between organisms can be described in terms of food chains and food webs and can be affected by human activity VCSSU093</p>
10-12	Earth & Space – Resources	<ul style="list-style-type: none"> <li>• Understand what is meant by the term ‘renewable’ in relation to the Earth’s resources.</li> <li>• Compare renewable and non-renewable energy sources, including how they are used in a range of situations.</li> </ul>	<p>Some of Earth’s resources are renewable, but others are non-renewable VCSSU100</p>

		<ul style="list-style-type: none"> <li>Investigate new technology that may have the potential to increase the use of renewable energy.</li> <li>Investigate the environmental implications of continued use of non-renewable resources.</li> </ul>	
13-15	Earth & Space - Solar System	<ul style="list-style-type: none"> <li>Investigate natural phenomena such as lunar and solar eclipses, seasons and phases of the moon</li> <li>Compare times for the rotation of Earth, the sun and moon, and comparing the times for the orbits of Earth and the moon</li> <li>Modelling the relative movements of the Earth, sun and moon and how natural phenomena such as solar and lunar eclipses and phases of the moon occur</li> <li>Explain why different regions of the Earth experience different seasonal conditions.</li> <li>Create a newspaper article that researches the history of the first trip to the moon as well as other current events in space exploration.</li> </ul>	Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the Sun, Earth and the Moon VCSSU099
16-17	Physics - Forces	<ul style="list-style-type: none"> <li>Investigate the effects of applying different forces to familiar objects</li> <li>Investigate common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects</li> <li>Investigate a simple machine such as lever or pulley system</li> </ul>	Change to an object's motion is caused by unbalanced forces acting on the object; Earth's gravity pulls objects towards the centre of Earth VCSSU103
18	Revision and Exam	<ul style="list-style-type: none"> <li>Revise concepts from the Year 7 units.</li> </ul>	
19-20	Physics - Fantastic Racers	<ul style="list-style-type: none"> <li>Design a plan to follow in the construction of a "Fan-tastic" race car, placing an emphasis on accuracy and attention to detail in order to create the most efficient model possible.</li> <li>Expand and apply knowledge of physical sciences and the application of force diagrams.</li> </ul>	