YEAR 7 SCIENCE 2017
SEMESTER 2 COURSE OUTLINE

Week	Topic	Learning Focus	Victorian Curriculum Strands & Sub strands
1-5	Biology - Classification	• Explain the role of classification in ordering and organising information describe the eight characteristics shared by all living things • Construct and read dichotomous keys • Explain the Five Kingdom classification system • State the Hierarchy of classification • Use scientific conventions for naming species • Explain the difference between a vertebrate and an invertebrate • Explain that vertebrates are sorted into five Classes – mammals, fish, birds, reptiles and amphibians • Dissect a trout • Identify the six main phyla of invertebrates • Classify plants into groups using a key	There are differences within and between groups of organisms; classification helps organise this diversity VCSSU091
6 – 9	Biology - Ecosystems	• Construct food chains to show feeding relationships in a habitat • Constructing and interpreting food webs to show relationships between organisms in an environment • Classify organisms of an environment according to their position in a food chain. • Recognise the role of microorganisms within food chains and food webs • Investigate the effect of human activity on local habitats, such as deforestation, agriculture or the introduction of new species.	Interactions between organisms can be described in terms of food chains and food webs and can be affected by human activity VCSSU093

		• Explore how living things can cause changes to their environment and impact other living things, such as the effect of cane toads	
10-12	Earth & Space – Resources	• Understand what is meant by the term 'renewable' in relation to the Earth's resources. • Compare renewable and non-renewable energy sources, including how they are used in a range of situations. • Investigate new technology that may have the potential to increase the use of renewable energy. • Investigate the environmental implications of continued use of non-renewable resources.	Some of Earth's resources are renewable, but others are non-renewable VCSSU100
13-15	Earth & Space - Solar System	• Investigate natural phenomena such as lunar and solar eclipses, seasons and phases of the moon • Compare times for the rotation of Earth, the sun and moon, and comparing the times for the orbits of Earth and the moon • 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 • Explain why different regions of the Earth experience different seasonal conditions. • Create a newspaper article that researches the history of the first trip to the moon as well as other current events in space exploration.	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	• Investigate the effects of applying different forces to familiar objects	Change to an object's motion is caused by unbalanced forces acting on the object; Earth's

		• Investigate common situations where forces are balanced, such as stationary objects, and unbalanced, such as falling objects • Investigate a simple machine such as lever or pulley system	gravity pulls objects towards the centre of Earth VCSSU103
18	Revision and Exam		
19-20	Physics - Fantastic Racers	• 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. • Expand and apply knowledge of physical sciences and the application of force diagrams.	