

## Victoria Level 5-6 Science and SOSE Outcomes for Earth Quest

### Level 5 Science

LEARNING OUTCOMES	INDICATORS	EARTH QUEST EXHIBITS
5.1 SCBS0501 <b>Living together: past, present and future</b> Explain the biological basis of classification of organisms into major groups.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• identify patterns of similarities and differences between a range of living things</li> <li>• explain why particular sets of features, for example, color, movement and structural features, are useful or not useful, to sort organisms using dichotomous keys.</li> </ul>	Deep Sea Glow Evolution Living Cells Plants in Place
5.2 SCBS0502 Describe interactions between living things and between living things and their non-living surroundings.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• construct a food web of organisms in an ecosystem</li> <li>• show graphically relationships between members of food chains, including a parasite-host relationship and producer-consumer relationships</li> <li>• describe the effect of changes in the environment on interactions in an ecosystem</li> </ul>	Food Pyramids Landscape Journey Plants in Place
5.3 SCBS0503 <b>Structure and function</b> Relate the structure and organisation of different cells to their function.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• identify major structural components of cells as viewed at light microscope level</li> <li>• determine the function of cells from their observable features</li> <li>• describe organisational relationships between organs, tissues, cells and systems</li> </ul>	Living Cells
5.1 SCES0501 <b>The changing Earth</b> Describe the formation, composition and cycling of rocks.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• identify the lithosphere as the region of the Earth where rocks are formed</li> <li>• describe ways to estimate the age of rocks</li> </ul>	Fossil Finder Surface to Core Volcanoes
5.3 SCES0503 <b>Our place in space</b> Describe how the positions of the planets, moon, sun and stars affect natural phenomena.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe how the tides are affected by the positions of the Earth, moon and sun</li> <li>• explain the phenomenon of the seasons in terms of relative positions of the Earth and sun</li> </ul>	Seasons in a Spin The Air Up There Turn the Tides
5.4 SCES0504 Describe major components of the universe.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• summarise major characteristics of selected features of the universe beyond our solar system</li> <li>• describe different kinds of evidence which contribute to knowledge of the universe.</li> </ul>	Galaxy Gaze

## Level 6 Science

LEARNING OUTCOMES	INDICATORS	EARTH QUEST EXHIBITS
6.1 SCBS0601 <b>Living together: past, present and future</b> Explain how ecosystems are maintained in terms of energy and matter.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe the flow of energy through an ecosystem</li> <li>• explain why there is a limit to the number of links in food chains within an ecosystem</li> <li>• describe how matter is cycled in an ecosystem</li> </ul>	Food Pyramids
6.2 SCBS0602 Evaluate theories concerning evolution of organisms.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• define the broad principles of the theory of natural selection as a mechanism for evolution</li> <li>• evaluate evidence about evolution of species.</li> </ul>	Evolution Fossil Finder Plants in Place
6.6 ext. SCBS0606 Relate concepts of adaptation, biodiversity and evolution to the survival of species.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• explain the significance of adaptations of organisms in relation to their survival</li> <li>• draw conclusions about the consequences of reducing biodiversity</li> <li>• explain how genetic mutations can contribute to evolution of species</li> </ul>	Evolution Landscape Journey Plants in Place Urban Jungle
6.1 SCES0601 <b>The changing earth</b> Explain implications of crustal movements of the Earth.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe the causes of movements of the Earth's crust</li> <li>• relate crustal movements to the formation of different kinds of folds and faults</li> <li>• make connections between folding and faulting and formation of mineral and fossil fuel resources.</li> </ul>	Core Samples Earthquake Exploring Earth Surface to Core Tectonic Plates Volcanoes
6.2 SCES0602 Describe the extraction, processing and use of geological resources and associated environmental and social issues.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe methods used to extract different kinds of geological resources</li> </ul>	Core Samples How Deep?
6.4 ext. SCES0604 Analyse aspects of space technologies.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• identify different kinds of space technologies and their uses</li> </ul>	Galaxy Gaze The Air Up There

## Level 5 Geography

LEARNING OUTCOMES	INDICATORS	EARTH QUEST EXHIBITS
5.1 SOGE0501 Compare the characteristics of significant regions in Australia and the world.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe the physical characteristics of natural and human environments</li> <li>• explain why natural and human environments exhibit certain characteristics.</li> </ul>	Hidden Depths Landscape Journey Plants in Place Urban Jungle
5.2 SOGE0502 Explain how natural processes and human activities change environments.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe human activities which change environments using geographical media</li> <li>• assess the extent to which natural processes and human activities change environments.</li> </ul>	How Deep? Ozone Urban Jungle
5.3 SOGE0503 Explain how people's use of natural and human environments changes over time.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• classify people's uses of natural and human environments</li> <li>• describe people's changing perception of natural and human environments</li> <li>• use maps and geographical techniques to provide evidence to describe change over time</li> </ul>	Fossil Finder Hidden Depths How Deep? Surface to Core Tectonic Plates Urban Jungle

## Level 6 Geography

LEARNING OUTCOMES	INDICATORS	EARTH QUEST EXHIBITS
6.1 SOGE0601 Explain the processes and interactions between people and major natural systems.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• describe the location and distribution of major natural systems</li> <li>• describe the processes which drive the major natural systems</li> <li>• analyse the impact of human activities on natural systems</li> </ul>	Landscape Journey Ozone Urban Jungle
6.3 SOGE0603 Predict the effects of resource development and use on a selected natural and human environment.	This is evident when the student is able to: <ul style="list-style-type: none"> <li>• outline the relationship between current use of the environment and future availability of resources</li> <li>• describe the likely impact of resource development and use on a natural environment</li> </ul>	How Deep? Ozone Urban Jungle