

# SCIENCE

## Level 3

Level 3: Biological science	Activities and information in Parks Victoria Education Resource Kit
<p><b>Living together: past, present and future</b></p> <p><b>3.1 Describe environmental factors that affect the survival of living things.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• state conditions in the environment necessary for survival of living things</li> <li>• distinguish between living (biotic) and non-living (abiotic) factors which affect the survival of living things</li> <li>• relate the need to reproduce to the survival of kinds of living things</li> <li>• describe how human intervention can affect survival of living things.</li> </ul>	<p>Parks and Science section Activities: 24, 25, 26, 27, 28, 32,33, 34, 35</p> <p>Dandenong Ranges National Park section Activities: 1, 4, 7, 8</p> <p>Grampians National Park section Activities: 5, 6, 7</p> <p>Kinglake National Park section Activities: 2, 3, 4, 5, 9</p> <p>Port Campbell National Park section Activities: 2, 3, 7, 8, 9, 15, 16, 17, 18</p>
Level 3: Earth and space sciences	Activities and information in Parks Victoria Education Resource Kit
<p><b>The changing Earth</b></p> <p><b>3.1 Describe how features of the landscape are altered by the processes of weathering and erosion.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• distinguish between the terms weathering and erosion</li> <li>• state the kinds of visible changes in the environment caused by the processes of weathering and erosion</li> <li>• identify landscapes in the environment that have been affected by weathering and erosion</li> <li>• suggest ways to reduce or avoid the effects of weathering and erosion.</li> </ul>	<p>Parks and Science section Activities: 29, 30 ,31</p> <p>Dandenong Ranges National Park section Activities: 2</p> <p>Grampians National Park section Activities: 1, 2, 3, 4, 5</p> <p>Kinglake National Park section Activities: 3</p> <p>Port Campbell National Park section Activities: 2, 4, 5, 6, 7, 15</p>

# SCIENCE

## Level 4

Science Level 4: Biological science	Activities and information in Parks Victoria Education Resource Kit
<p><b>Living together: past, present and future</b>  <b>4.1 Identify relationships between living things which help them survive in their habitat.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>draw simple food chains</li> <li>relate feeding relationships, for example, predator/prey and producer/consumer, to survival</li> <li>relate survival of animals and plants to their dependence on each other in a variety of ways</li> <li>identify interdependent relationships within a group of animals.</li> </ul>	<p>Parks and Science section            Activities: 23, 24, 25, 26, 27, 28, 32,33, 34, 35</p> <p>Dandenong Ranges National Park section            Activities: 4, 7, 8, 9</p> <p>Grampians National Park section            Activities: 6, 7</p> <p>Kinglake National Park section            Activities: 4, 5, 9</p> <p>Port Campbell National Park section            Activities: 8, 9, 16, 17</p>
<p><b>Structure and function</b>  <b>4.2 Describe how selected systems of plants and animals function.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>describe the features of the main parts of plant systems, that help them carry out their functions</li> <li>explain how particular systems of plants and animals carry out their function</li> <li>describe the features of the main parts of animal systems, that help them carry out their functions.</li> </ul>	<p>Parks and Science section            Activities: 24, 25, 32, 33, 34</p> <p>Dandenong Ranges National Park section            Activities: 7, 8</p> <p>Grampians National Park section            Activities: 6, 7</p> <p>Kinglake National Park section            Activities: 4, 5, 9</p> <p>Port Campbell National Park section            Activities: 8, 9, 16, 17, 19, 20</p>
Level 4: Earth and space sciences	Activities and information in Parks Victoria Education Resource Kit
<p><b>The changing Earth</b>  <b>4.1 Relate the occurrence of natural events to atmospheric changes and movements of the Earth's crust and mantle.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>identify layers within the Earth and the atmosphere</li> <li>describe natural events and their association with atmospheric changes</li> <li>describe natural events and their association with movements of the Earth's crust and mantle.</li> </ul>	<p>Dandenong Ranges National Park section            Activities: 2</p> <p>Grampians National Park section            Activities: 1, 3, 4</p> <p>Kinglake National Park section            Activities: 3</p> <p>Port Campbell National Park section            Activities: 2, 15, 18</p>

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### Level 5

Level 5 Biological science	Activities and information in Parks Victoria Education Resource Kit
<p><b>Living together: past, present and future</b></p> <p><b>5.1. Explain the biological basis of classification of organisms into major groups.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• identify patterns of similarities and differences between a range of living things</li> <li>• define the major characteristics used in the 5-Kingdom system of classification</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>	<p>Parks and Science section Activities: 23, 32</p> <p>Dandenong Ranges National Park section Activities: 4, 7, 8</p> <p>Grampians National Park section Activities: 6, 7</p> <p>Kinglake National Park section Activities: 4, 5, 9</p> <p>Port Campbell National Park section Activities: 8, 9, 16, 17</p>
<p><b>5.2 Describe interactions between living things and between living things and their non-living surroundings.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• describe different interactions in an ecosystem, including competition, predation, collaboration, parasitism, pollination, reproduction and parenting</li> <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>	<p>Parks and Science section Activities: 24, 25, 26, 27, 28, 32,33, 34, 35</p> <p>Dandenong Ranges National Park section Activities: 4, 7, 8, 9, 10, 11</p> <p>Grampians National Park section Activities: 6, 7</p> <p>Kinglake National Park section Activities: 4, 5, 9</p> <p>Port Campbell National Park section Activities: 8, 9, 16, 17, 19, 20</p>

### Level 6

Level 6 Biological science	Activities and information in Parks Victoria Education Resource Kit
<p><b>6.1 Explain how ecosystems are maintained in terms of energy and matter.</b></p> <p><i>This is evident when the student is able to:</i></p> <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>	<p>Parks and Science section Activities: 26</p> <p>Dandenong Ranges National Park section Activities: 4, 9</p> <p>Kinglake National Park section Activities: 4, 5</p>

## SCIENCE

### Level 5

Level 5: Earth and space sciences	Activities and information in Parks Victoria Education Resource Kit
<p><b>The changing Earth</b>  <b>5.1 Describe the formation, composition and cycling of rocks.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• identify the lithosphere as the region of the Earth where rocks are formed</li> <li>• distinguish between sedimentary, igneous and metamorphic rocks on the basis of their formation and composition</li> <li>• describe ways to estimate the age of rocks</li> <li>• explain the rock cycle.</li> </ul>	<p>Grampians National Park section            Activities: 1, 3, 4</p> <p>Kinglake National Park section            Activities: 3</p> <p>Port Campbell National Park section            Activities: 2, 15, 18</p>
<p><b>5.2 Relate the properties of rocks to the ways in which they are used.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• describe properties of igneous, sedimentary and metamorphic rocks in terms of composition, grain size, color and texture</li> <li>• describe the relationship between rocks, ores and minerals</li> <li>• explain why igneous, sedimentary and metamorphic rocks are used for particular purposes.</li> </ul>	<p>Grampians National Park section            Activities: 1, 4, 8</p> <p>Port Campbell National Park section            Activities: 2, 15</p>

### Level 6

Level 6: Earth and space sciences	Activities and information in Parks Victoria Education Resource Kit
<p><b>The changing Earth</b>  <b>5.1 Explain implications of crustal movements of the Earth.</b></p> <p><i>This is evident when the student is able to:</i></p> <ul style="list-style-type: none"> <li>• describe the causes of movements of the Earth's crust</li> <li>• justify the theory of plate tectonics</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>	<p>Dandenong Ranges National Park section            Activities: 3</p> <p>Grampians National Park section            Activities: 1, 3, 4</p> <p>Kinglake National Park section            Activities: 3</p>