SAMPLE TEACHING AND LEARNING OUTLINE

SCIENCE
BIOLOGICAL SCIENCES
YEAR 3
## Science understanding

Living things can be grouped on the basis of observable features and can be distinguished from non-living things

<table>
<thead>
<tr>
<th>Week</th>
<th>Syllabus content</th>
<th>Lesson content</th>
<th>Suggested resources</th>
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<tbody>
<tr>
<td>1–2</td>
<td><strong>PROCESSING AND ANALYSING DATA AND INFORMATION</strong>&lt;br&gt;Use a range of methods, including tables and simple column graphs to represent data and to identify patterns and trend</td>
<td>Living, non-living and once living&lt;br&gt;- Review of living and non-living and introduce once living&lt;br&gt;- Tally and graph things in the classroom that fit into these categories&lt;br&gt;- Negotiate the observable features of living and non-living things&lt;br&gt;- Discuss patterns and trends identified</td>
<td>Living and non-living things (teacher background, various units of work and lesson resources)&lt;br&gt;<a href="http://scienceweb.asta.edu.au/years-f-2/unit1/overview/yrf2-unit1-overview.html">http://scienceweb.asta.edu.au/years-f-2/unit1/overview/yrf2-unit1-overview.html</a></td>
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<td>3–5</td>
<td><strong>QUESTIONING AND PREDICTING</strong>&lt;br&gt;With guidance, identify questions in familiar contexts that can be investigated scientifically and make predictions based on prior knowledge</td>
<td>Exploring seeds&lt;br&gt;- Is a seed living, non-living or once living?&lt;br&gt;- Develop criteria of living and non-living&lt;br&gt;- Labelling parts of a seed&lt;br&gt;- Stages of seed germination&lt;br&gt;- Different seeds, appearance, texture, colour, casings&lt;br&gt;- Observe fruit and vegetable seeds&lt;br&gt;- Sprouting simple seeds such as mung beans and alfalfa, observe growth and development</td>
<td>All about seeds&lt;br&gt;<a href="http://seeds.scienccnetlinks.com/seeds/">http://seeds.scienccnetlinks.com/seeds/</a></td>
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<td><strong>PLANNING AND CONDUCTING</strong>&lt;br&gt;With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment&lt;br&gt;Consider the elements of fair tests and use formal measurements and digital technologies as appropriate, to make and record observations accurately</td>
<td><strong>INVESTIGATION IDEA</strong>&lt;br&gt;- Plant seed – what will we change? Water and no water&lt;br&gt;- Develop investigation and make appropriate predictions&lt;br&gt;- Collect and record information, using a range of methods and digital technologies is available</td>
<td>Germination and Reproduction of Plants (information and video explanation)&lt;br&gt;<a href="http://seeds.scienccnetlinks.com/seeds/">http://seeds.scienccnetlinks.com/seeds/</a></td>
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<td>Germination time-lapse video of different seeds&lt;br&gt;<a href="https://vimeo.com/30074251">https://vimeo.com/30074251</a></td>
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<td>Bitesize Plants (information page)&lt;br&gt;<a href="http://www.bbc.co.uk/bitesize/ks2/science/living_things/plants/read/1/">http://www.bbc.co.uk/bitesize/ks2/science/living_things/plants/read/1/</a></td>
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<td>Investigation planners&lt;br&gt;<a href="http://www.primaryresources.co.uk/science/science1.htm">http://www.primaryresources.co.uk/science/science1.htm</a></td>
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| 3–5  | PROCESSING AND ANALYSING DATA AND INFORMATION | • Discuss fair test and question how this was a fair test and why  
• Label basic plant structure as it grows  
• Compare results and predictions and make suggestions for findings | Science Buddies (fair test information for teachers)  
|      | QUESTIONING AND PREDICTING | Do plants move?  
• Predictions about plants, do they move or not? Are they living or not?  
• Discussions about ‘movement’ being a characteristic of living things | Germination time-lapse video of different seeds  
https://vimeo.com/30074251  
Primary Resources (varied resources)  
http://www.primaryresources.co.uk/science/science2c.htm |
| 6–8  | PLANNING AND CONDUCTING | INVESTIGATION IDEA | |
|      | With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment | • Move one seedling into a dark cupboard with a stream of light to encourage plant growth towards opening  
• Plan and conduct investigation | |
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| 9–10 | **PROCESSING AND ANALYSING DATA AND INFORMATION**<br>Use a range of methods including tables and simple column graphs to represent data and to identify patterns and trends<br>Compare results with predictions, suggesting possible reasons for findings | **How do different animals move?**<br>• Identify different observable features of animals; coverings, wings, fins, tails<br>• How do these features help with movement, places they may live and special things they can do?<br>• Consider the actions of people and the loss of animal habitat | Living things in their environment (varied resources and ideas)<br><http://www.primaryresources.co.uk/science/science2e.htm>
Adaptation to climate | Australia (Planet Doc documentary)<br><https://www.youtube.com/watch?v=xRC1rnnFnPE>
Wildlife Journal Junior (information page)<br><http://www.nhptv.org/wild/habitat.asp> |

SCIENCE AS A HUMAN ENDEAVOUR<br>NATURE AND DEVELOPMENT OF SCIENCE
Science involves making predictions and describing patterns and relationships

USE AND INFLUENCE OF SCIENCE
Science knowledge helps people to understand the effect of their actions