What’s The Bush About?

Focus: Characteristics of living things - Biodiversity

Program Overview: Information for Teachers

In this programme Amaroo Environmental Education Centre implements elements of the Australian Curriculum for Science as well as Cross Curriculum Priorities: Aboriginal and Torres Strait Islander histories and cultures and Sustainability. This programme is delivered at Amaroo and is a full school day in length.

The sequence of lessons on the following pages outlines both the activities undertaken by the Amaroo teacher and suggested activities to be conducted by the teacher in the school.

Australian Curriculum References for this program:

Year 2 Science - Content Descriptions
Science Understandings
Biological Science
• Living things grow, change and have offspring similar to themselves (ACSSU030)

Science as a Human Endeavour
Use and Influence of Science
• People use science in their daily lives, including when caring for their environment and living things (ACSHE035)

Science Inquiry Skills
Questioning and Predicting
• Respond to and pose questions, and make predictions about familiar objects and events (ACSIS037)

Communicating
• Represent and communicate observations and ideas in a variety of ways (ACSIS042)
### Pedagogical Key: Based on Amaroo EECs Pedagogical Framework

The Amaroo EEC teachers deliver this program utilising a variety of Pedagogical Strategies which are based on the four dimensions of Productive Pedagogies plus the 5th Pedagogy: Pedagogy and Place - Learning Beyond the Classroom.

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<thead>
<tr>
<th>Pedagogical Key</th>
<th>Pedagogical Strategies</th>
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<tbody>
<tr>
<td>Learning Beyond the Classroom</td>
<td>Learning by Doing [LbD], Being in the Natural Environment [BNE], Exploring Issues in Local Context [EILC], Life Learning in Real Places [LLRP]</td>
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<tr>
<td>Intellectual Quality</td>
<td>Higher-order Thinking [HoT], Deep Knowledge [DK], Deep Understanding [DU], Substantive Conversation [SC]</td>
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<tr>
<td>Connectedness</td>
<td>Background Knowledge [BK], Knowledge Integration [KI], Connectedness to the World [CtW]</td>
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<tr>
<td>Supportive Classroom Environment</td>
<td>Student Direction [SD], Social Support [SS], Academic Engagement [AE]</td>
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<tr>
<td>Recognition of Difference</td>
<td>Cultural Knowledge [CK], Group Identity [GI]</td>
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The lessons in the teaching sequence have been colour coded as follows:

- Lessons in these boxes should be taught/facilitated by the class teacher in the school setting
- Lessons in these boxes will be taught by the Amaroo teacher as part of your program.
- It is suggested that pre/post work may be conducted on these objectives

### Teaching Sequence

<table>
<thead>
<tr>
<th>Topic</th>
<th>Lesson Objectives</th>
<th>Lesson - outline</th>
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| Familiar living things - grouping and naming | Students will:  
  - Investigate familiar living things  
  - Understand that objects can be grouped based on observable features | |

**Observing Living Things:**

- **BK, AE, Ki, CtW, LbD, LLRP, WALT, IWD**

  Students will:  
  - Understand that observing in science provides useful information to answer questions  
  - Identify the defining features of animals  
  - Demonstrate their scientific observation skills  
  
  Students will:  
  - Recall what creatures need to survive in their environment  
  - Discuss, with reference to survival in the bush, various native creatures based on their observable features - body shape, body covering and other prominent features  
  - Construct a clay model of a native Australian animal.

| Importance of camouflage | Students will:  
  - Understand that not all creatures resemble their parents at birth  
  - Understand that creatures have various strategies for survival - e.g. camouflage, mimicry | Students will:  
  - Observe and review various stimulus cards to discuss different types of animal camouflage  
  - Participate in a camouflage game. |
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| The Living World: Exploring The Bush | Students will:  
• Understand that living things can be grouped on the basis of observable features and can be distinguished from non-living and once-living things  
• Demonstrate their scientific observation skills  
• Observe and appreciate elements of the bush | The students will  
• Participate in a bush walk where incidental findings are observed  
• Discuss findings in relation to survival of creatures in the bush |
| BNE, LLRP, CK, SC | Students will:  
• Gain some understanding of how Aboriginal peoples and Torres Strait Islander peoples investigate and use science knowledge in their lives. | The students will:  
• Discuss Indigenous plant use during the bush walk where appropriate |
| Investigating food chains: Reflecting on the needs of animals | Students will:  
• Understand that all food chains begin with a plant  
• Understand that humans are part of food chains | The students will:  
• Use role play to understand and demonstrate the components of a food chain  
• Engage with the story of Yum Yum |
| Life Cycles | Students will:  
• Explore different characteristics of life stages in animals such as egg, caterpillar and butterfly | The students will:  
• Observe and discuss the life cycle and survival of a butterfly |

Suggested Assessment Tasks:
- Students complete or construct a simple food chain
- Students illustrate and report on the life cycle of a butterfly
- Students can list some of the facets of camouflage - colour, shape, movement or lack of it, texture
Cross Curriculum Priority Link: **Sustainability** addresses the ongoing capacity of Earth to maintain life. Sustainability education is futures orientated, focused on protecting environments and creating a more ecologically and socially just world through informed action.

**Organising Idea: Systems OI.2** - All life forms, including human life, are connected through ecosystems on which they depend for their well-being and survival.

**Futures OI.7** - Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments

Cross Curriculum Priority Link: **Aboriginal and Torres Strait Islander histories and cultures**: Aboriginal and Torres Strait Islander Identity is central to this priority and is intrinsically linked to living, learning Aboriginal and Torres Strait Islander communities deep knowledge traditions and holistic world view.

**Organising Idea: Culture OI.5** - Aboriginal and Torres Strait Islander people’s way of life are uniquely expressed through ways of being, thinking, knowing and doing.

**Synopsis of Program:**

**Session overviews:**

**Topics include:**

- Living things/non-living/once living things
- Observable features of creatures
- Camouflage
- Life cycles
- Bush experience
- Food chain
- Indigenous use of the bush

**Activities include:**

- Creating a clay animal: after discussion about creature features, students sculpt a model of an Australian native animal.
- Viewing the butterfly life cycle: this is illustrated using blow-up models; the colouring of the different stages is noted and discussed.
- Camouflage game: after discussion about animal camouflage, students participate in a game where they use their observation skills to find (some easy, some difficult) hidden creatures in the bush garden.
- A bush walk: incidental findings are observed and discussed as well as some strategically placed items. An activity involving the terms ‘living/non-living and once living’ is conducted on the walk. Indigenous plant use is also discussed incidentally.
- Food chain puzzle/role play & story: students use a set of cards to correctly order a given food chain and engage with the story ‘Yum Yum’.
- Viewing of animal camouflage charts.

**Conclusion:** Reflection on how our actions can affect the bush in good and bad ways.