



## Teacher Resource Pack

# Grade 3

### Subject: Science

Achievement Standard: By the end of Year 3, students... They group living things based on observable features and distinguish them from non-living things. They describe how they can use science investigations to respond to questions.

Strand	Sub-Strand	Content Descriptor	Elaborations
Science Understanding	Biological Science	Living things can be grouped on the basis of <u>observable</u> features and can be distinguished from non-living things ( <a href="#">ACSSU044</a> )	<ul style="list-style-type: none"> <li>recognising characteristics of living things such as growing, moving, sensitivity and reproducing</li> <li>recognising the range of different living things</li> <li>sorting living and non-living things based on characteristics</li> <li>exploring differences between living, once living and products of living things</li> </ul>
Science as a Human Endeavour	Nature and Development of science	Science involves making predictions and describing patterns and relationships ( <a href="#">ACSHE050</a> )	<ul style="list-style-type: none"> <li>making predictions about change and events in our environment</li> <li>Aboriginal and Torres Strait Islander Histories and Cultures</li> <li>considering how posing questions helps us plan for the future</li> </ul>
	Use and influence of science	Science knowledge helps people to understand the effect of their actions ( <a href="#">ACSHE051</a> )	<ul style="list-style-type: none"> <li>investigating how science helps people such as nurses, doctors, dentists, mechanics and gardeners</li> </ul>

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			<ul style="list-style-type: none"> <li>• considering how materials including solids and liquids affect the environment in different ways</li> <li>• deciding what characteristics make a material a pollutant</li> <li>• researching Aboriginal and Torres Strait Islander people’s knowledge of the local natural environment, such as the characteristics of plants and animals</li> </ul>
Science Inquiry Skills	Questioning and Predicting	With guidance, identify questions in <u>familiar</u> contexts that can be investigated scientifically and make predictions based on prior knowledge ( <a href="#">AC SIS053</a> )	<ul style="list-style-type: none"> <li>• choosing questions to investigate from a list of possibilities</li> <li>• jointly constructing questions that may form the basis for investigation</li> <li>• listing shared experiences as a whole class and identifying possible investigations</li> <li>• working in groups to discuss things that might happen during an investigation</li> </ul>
	Planning and conducting	With guidance, plan and conduct scientific investigations to find answers to questions, considering the safe use of appropriate materials and equipment ( <a href="#">AC SIS054</a> )	<ul style="list-style-type: none"> <li>• working with teacher guidance to plan investigations to test simple cause-and-effect relationships</li> <li>• discussing as a whole class ways to investigate questions and evaluating which ways might be most successful</li> </ul>
		Consider the elements of fair tests and use formal measurements and <u>digital technologies</u> as appropriate, to make and record observations accurately ( <a href="#">AC SIS055</a> )	<ul style="list-style-type: none"> <li>• recording measurements using familiar formal units and appropriate abbreviations, such as seconds (s), grams (g), centimetres (cm)</li> </ul>

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			<ul style="list-style-type: none"> <li>• using a variety of tools to make observations, such as digital cameras, thermometers, rulers and scales</li> </ul>
	Processing and analysing data and information	Use a range of methods including tables and simple column graphs to represent <a href="#">data</a> and to identify patterns and trends ( <a href="#">AC SIS057</a> )	<ul style="list-style-type: none"> <li>• using provided tables to organise materials and objects based on observable properties</li> <li>• discussing how to graph data presented in a table</li> <li>• identifying and discussing numerical and visual patterns in data collected from students' own investigations and from secondary sources</li> </ul>
		Compare results with predictions, suggesting possible reasons for findings ( <a href="#">AC SIS215</a> )	<ul style="list-style-type: none"> <li>• discussing how well predictions matched results from an investigation and sharing ideas about what was learnt</li> </ul>
	Communicating	Represent and communicate observations, ideas and findings using formal and informal representations ( <a href="#">AC SIS060</a> )	<ul style="list-style-type: none"> <li>• communicating with other students carrying out similar investigations to share experiences and improve investigation skill</li> <li>• exploring different ways to show processes and relationships through diagrams, models and role play</li> <li>• using simple explanations and arguments, reports or graphical representations to communicate ideas to other students</li> </ul>

## Audit of existing website resources (Grade 3)

<b>Literacy</b>
<p><u>Factual texts:</u></p> <ul style="list-style-type: none"> <li>• <b>Identified gap in resources</b></li> </ul>
<p><u>Fictional texts:</u></p> <ul style="list-style-type: none"> <li>• <b>Identified gap in resources</b></li> </ul>
<p><u>Activities:</u></p> <ul style="list-style-type: none"> <li>• <b>Go Green for Bilbies</b>  <a href="http://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/GoGreenForBilbies.html">http://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/GoGreenForBilbies.html</a></li> <li>• <b>Adopt a Bilby</b>  <a href="http://shop.dreamworld.com.au/Tickets/AAA">http://shop.dreamworld.com.au/Tickets/AAA</a></li> <li>• <b>Sponsor a bilby</b>  <a href="http://www.enviro-print.com.au/SaveTheBilbyFund/Sponsorship/Become_a_Bilby_Buddy.html">http://www.enviro-print.com.au/SaveTheBilbyFund/Sponsorship/Become_a_Bilby_Buddy.html</a></li> <li>• <b>Resource Kit</b> (includes a times table sheet) (\$60)  <a href="http://www.enviro-print.com.au/OnlineOrdering/Joey-Bilby-School-Activity-Kit-ENVIROPRINT.html">http://www.enviro-print.com.au/OnlineOrdering/Joey-Bilby-School-Activity-Kit-ENVIROPRINT.html</a></li> <li>• <b>Word search</b>  <a href="https://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/resources.html">https://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/resources.html</a></li> <li>• <b>Maze</b>  <a href="https://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/resources.html">https://www.enviro-print.com.au/SaveTheBilbyFund/2015/pages/resources.html</a></li> </ul>
<b>Information Communication Technologies</b>
<p><u>Websites:</u></p> <ul style="list-style-type: none"> <li>• <a href="http://www.eaterbilby.com.au">www.eaterbilby.com.au</a> (unable to audit due to password restrictions, as discussed with the Fund)</li> </ul>
<p><u>Videos:</u></p> <ul style="list-style-type: none"> <li>• <b>Identified gap in resources</b></li> </ul>
<p><u>Games and webquests:</u></p> <ul style="list-style-type: none"> <li>• <b>Identified gap in resources</b></li> </ul>

## Unit plans and lessons

- *Identified gap in resources*

## Creative Arts

### Music:

- *Identified gap in resources*

### Arts and Crafts:

- *Identified gap in resources*

### Role play:

- *Identified gap in resources*

## Experiences

### Field trips:

- **Charleville Bilby Experience**  
<http://www.savethebilbyfund.com/charleville-bilby-experience.php>
- **Ipswich Nature Centre, Nocturnal Bilby Exhibit** URL ON Bilby Fund SITE N/A. This one works:  
<http://www.discoveripswich.com.au/attraction/ipswich-nature-centre/>
- **Featherdale Wildlife Park**  
<http://www.featherdale.com.au/school-excursions/>

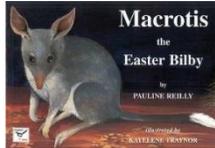
### School visits:

- **Featherdale Wildlife Park**  
<http://www.featherdale.com.au/school-excursions/>
- **Dreamworld: Wildlife for kids**  
<https://www.dreamworld.com.au/education/teachers/wildlife-for-kids>

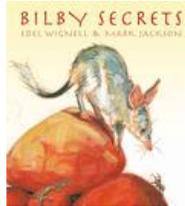
## Recommended resources (Grade 3)

### Literacy

#### Factual texts:



**Macrotis the Easter Bilby.** Written by Pauline Reilly. Illustrated by Kayelene Traynor. Picture book for 3 to 8 years. Each book tells in story form the life history of an individual animal (National library of Australia, 2016).



**Bilby Secrets.** Written by Edel Wignell; Illustrated by Mark Jackson. Non-fiction picture book for 3 to 9 years. The story depicts a young bilby's birth, habitat, behaviour and diet. When Baby Bilby is born, he is as long as your little toe. He crawls into his mother's warm pouch, where he feeds and grows. Baby Bilby is soon ready to leave the safety of the burrow. He follows his mother closely, sniffs the night air, and hops into the moonlight for his first desert adventure (Walker books Australia and New Zealand, 2015).

#### The secret life of the bilby

By Gary Humble  
Easter billys are an increasingly popular alternative to the traditional chocolate rabbit. But the real bilbies are much harder to find - living secretive lives in hidden dens across Australia, waiting for the right conditions to start a family.  
Bilby were introduced to our continent in 1936, and today they are found in only a few areas. By the 1950s they were nearly extinct.  
The environmental changes of the last 200 years have made it hard for bilbies to survive. Changes in the landscape, such as the clearing of land for agriculture, and the loss of their natural habitat, have made it difficult for them to survive.  
The Greater Bilby (Macrotis lagotis) was once only found in southern Australia, but has since spread to the northern and southern parts of the continent. It is now found in a number of areas across Australia, including the Northern Territory, South Australia, Western Australia and Queensland.



#### The Secret Life of the Bilby by Gary Humble.

Informative article from the ABC website (upper grades)  
Humble, G. (2006) *Secret Life of the Bilby*. Retrieved from <http://www.abc.net.au/science/articles/2006/04/06/2042654.htm>



#### Australian Threatened Species: The Greater Bilby

Factsheet (upper grades)  
Department of the Environment and Heritage. (2005) *Greater Bilby Macrotis Lagotis*. Retrieved from <http://www.environment.gov.au/biodiversity/threatened/publications/greater-bilby-macrotis-lagotis>

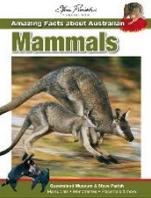


### Greater Bilby Fact Sheet

Factsheet (upper grades)

World Wildlife Fund. (2008) *Greater Bilby Fact Sheet*. Retrieved from

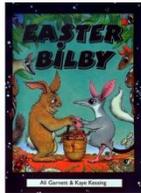
[http://www.wwf.org.au/crawl\\_publications.cfm?1743/Greater-bilby-fact-sheet](http://www.wwf.org.au/crawl_publications.cfm?1743/Greater-bilby-fact-sheet)



**Amazing Facts about Australian Mammals.** Written by Queensland Museum and Steve Parish. This book is packed full of information and you'll be amazed at how much you learn about Australia's mammals by dipping into the remarkable facts presented. It is to our astonishment we also learn that mammals today often had either giant or pygmy-sized ancestors millions of years ago! Full page spread on the Bilby (Parish, 2008).

- **Image of a Greater Bilby**, 'Macrotis lagotis'. Retrieved from (Scoutle) <http://www.scoutle.edu.au/ec/viewing/R9612/index.html> (ESA, 2015)
- **Greater Bilby Endangered Animal Poster:** Factsheet poster. Teachstarter. (2016). *Greater Bilby Endangered Animal Poster*. Retrieved from <https://www.teachstarter.com/teaching-resource/greater-bilby-endangered-animal-poster/>

### Fictional texts:



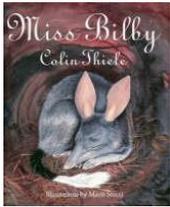
**Easter Bilby.** Written by Ali Garnett. Illustrated by Kaye Kessing. Picture book for 3 to 8 years.

Easter Bunny is old and tired but who could do his job properly? His grandson Flash Rabbit only wants to be famous. Should Easter Bunny pass his job on to an introduced rabbit or to a native Australian? (Kessing, 2016)

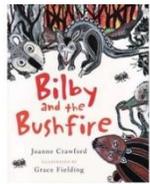


**Easter Bilby's Secret.** Written by Ali Garnett. Illustrated by Kaye Kessing. Picture book for 3 to 8 years.

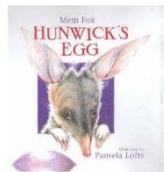
Easter Bilby has been given the job of delivering Easter eggs all around Australia. But Cat and Fox roam the country always on the hunt for tasty native creatures. How will Easter Bilby and his friends get the job done safely and on time? A clever plan is needed but Cat and Fox must not find out. (Kessing, 2016).



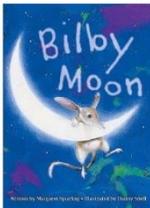
**Miss Bilby.** Written by Colin Thiele, Illustrated by Mavis Stucci. Picture book 3 to 8 years. This tells the story of the bilby who leads a peaceful life, until the feral animals take over. A sanctuary is finally made for the endangered species, and they begin to rebuild their lives (Trove National library of Australia, 2016).



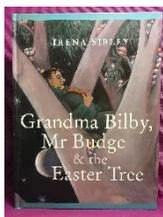
**Bilby and the bushfire.** Written by Joanne Crawford; illustrated by Grace Fielding. Picture book for primary school age. More adventures for Bilby as he and his friends are threatened by a raging bushfire as it threatens to destroy their home in the bushland (National library of Australia, 2016).



**Hunwick's Egg.** Written by Mem Fox; illustrated by Pamela Lofts. Picture book 4 to 9 years. When a mysterious egg appears outside Hunwick's burrow, no one is quite certain what to think. And when it doesn't hatch right away, everyone is even more bewildered. Everyone except Hunwick, that is. Hunwick understands that the egg is his friend, and he is the only one who knows its secret (Fox, 2016).



**Bilby Moon.** Written by Margaret Spurling; illustrated by Danny Snell. Picture book 4 to 8 years. Each night Little Bilby looks up to greet the moon and each night the moon looks down and smiles. One night the moon doesn't smile. Little Bilby is concerned as the full moon has begun to disappear and goes on a search for the missing piece, asking everyone she meets for their help, including Sand-dragon, Hopping Mouse and Boobook Owl (Australian Picture Books, 2016).



**Grandma Bilby, Mr Budge and the Easter Tree.** Written and illustrated Irena Sibley. Picture book 5 to 9 years. When it's time to deliver the Easter eggs again, Grandma Bilby gets some unexpected help from the possums in the park. Mr Budge the hamburger man joins in the fun and soon the whole town is celebrating! (Fishpond, 2016).

Activities:

- **See existing resources**

## Information Communication Technologies

Websites:

- Kaye Kessing: <http://www.kayekessing.com/> (teacher resource to purchase Bilby related books, novels, posters)
- Bilby Blog: <http://www.kayekessing.com/bilbys-blog> (information on the Bilby with the ability to ask questions)



### Greater Bilby Taronga Zoo

Taronga Zoo (2008) *Greater Bilby*. Retrieved from <https://taronga.org.au/animal/greater-bilby>

Video:



### Vulnerable Bilbies can be seen at Taronga Zoo.

Informative video presentation from a senior keeper about the conservation and care of bilbies. Taronga Sydney. (2010, August, 31). *Vulnerable Bilbies can be seen at Taronga Zoo*. Retrieved from <https://youtu.be/vizEHTEPy7Q>



### Bilby Joeys at Perth Zoo

Perth Zoo. (2012, September, 10). *Bilby Joeys at Perth Zoo* [video file]. Retrieved from <https://youtu.be/5FUKn9LuYXk>



### Baby Bilbies at Adelaide Zoo

Zoos SA. (2009, January, 28). *Baby Bilbies at Adelaide Zoo* [video file]. Retrieved from <https://youtu.be/0D4iJj8tNAI>

Games and webquests:

- **The Night of the Bilby: get home alive [ESL]**. Retrieved from (Scootle) <http://www.scootle.edu.au/ec/viewing/L9893/index.html> (ESA, 2015)
- **The night of the bilby: safe habitat [ESL]**. Retrieved from (Scootle) <http://www.scootle.edu.au/ec/viewing/L9894/index.html> (ESA, 2015).
- **Australian Animals** (25 digital curriculum resources is organised into four categories - communities of Australian animals, animals in art and stories, vertebrates and invertebrates). Retrieved from Scootle <http://www.scootle.edu.au/ec/viewing/R10702/index.html>

## Unit plans and lessons

- **Bilby Moon** teacher notes: [http://www.workingtitlepress.com.au/teachers\\_notes.html](http://www.workingtitlepress.com.au/teachers_notes.html)
- **CSIRO Education Programs- Sustainable Futures** (curriculum aligned): <http://www.csiro.au/en/Education/Programs/Sustainable-Futures>
- **Baby Bilby** unit [ESL]: Retrieved from (Scootle) [http://www.education.nt.gov.au/\\_data/assets/pdf\\_file/0020/5258/baby\\_bilby.pdf](http://www.education.nt.gov.au/_data/assets/pdf_file/0020/5258/baby_bilby.pdf)
- **Primary Connections Feathers, Fur or Leaves** unit. What is that? Is it alive? Is it similar to other things I know? It provides opportunities for students to explore features of living things, and ways they can be grouped together. Retrieved from <https://primaryconnections.org.au/resource/unit-resources/feathers-fur-or-leaves> (AAoS, 2016).

## Creative Arts

Music:

- **Identified gap in available resources**

Art and Craft:

- **Identified gap in available resources**

Role play:

- **Identified gap in available resources**

## Experiences

Field Trips:



**Adelaide Zoo learning experiences**

Learning experiences for all age groups, linked to the curriculum.

<http://www.zoossa.com.au/zoo-learning-programs/>



**Bunyaville Environmental Education Centre**, programs for all year levels & curriculum links & risk assessment info.

<http://www.bunyavileec.eq.edu.au/programs/easter-bilby-adventure/easter-bilby-adventure.html>

School visits:

- **See existing resources**