

UNIT 1A PENGUIN PARTY

YEARS R - 2 BIOLOGICAL SCIENCE



This unit is designed to focus on the following aspects of the Australian Curriculum Science for Reception, year 1 and year 2 students.

Biological sciences

Living things have basic needs, including food and water (ACSSU002) and living things have a variety of external features (ACSSU017)

Living things live in different places where their needs are met (ACSSU211). Living things grow, change and have offspring similar to themselves (ACSSU030)

Nature and development of science

Science involves observing, asking questions about, and describing changes in, objects and events (ACSHE013).

Questioning and predicting

Pose and respond to questions about familiar objects and events (AC SIS014).

Participate in guided investigations to explore and answer questions (AC SIS038).

Planning and conducting

Participate in guided investigations and make observations using the senses (AC SIS011). Use informal measurements to collect and record observations, using digital technologies as appropriate (AC SIS039).

Processing and analysing data and information

Engage in discussions about observations and represent ideas (AC SIS233).

Use a range of methods to sort information, including drawings and provided tables and through discussion, compare observations with predictions (AC SIS040).

Evaluating

Share observations and ideas (AC SIS012). Compare observations with those of others (AC SIS041).

Communicating

Represent and communicate observations and ideas in a variety of ways (AC SIS042).

Sample learning sequence 1 A

Penguin Party

Reception to year 2 Science

<p>Learning Intention:</p> <p>Students learn about the lives of Penguins, what they eat and how they need water to survive.</p> <p>Students recognise that there are different types of penguins. Students have the vocabulary and knowledge to discuss the needs of penguins, especially those on Granite Island.</p>		<p>Evidence of learning</p> <p>Collect samples either digitally, anecdotally or from student recording that match aspects of the AC content and achievement standards</p>
<p>Hook</p> <p>Introduce the students to the idea of visiting Granite Island through photos, video or prepared talk.</p> <p>Tell your stories about Granite Island. Allow students to tell theirs and discuss that knowledge in depth.</p>	<p>Establish what the students already know.</p> <p>Invitation</p> <p>Declare with as much drama as you can that the class has been invited to a Penguin Party.</p> <p>Ask the students what is a penguin? Who has seen a penguin? Are they fish? Do they fly? Are they birds? What do they sound like/ look like/feel like? Record the students' responses on a chart.</p> <p>Read the invitation seriously.</p> <p>Repeat the part about 'bring a plate' in a puzzled tone and ask the class what could they mean? What do penguins eat?</p> <p>Read a few books or watch</p> <p>https://www.youtube.com/watch?v=CWJyhbLodeE</p> <p>Ask students to draw a penguin (YouTube support if needed e.g. https://www.youtube.com/watch?v=3YjKGeBdtp8)</p> <p>Ask students if they have any questions or wonderings. Record them on the penguin poster on their drawing. (I wonder what a penguin's favourite food is? I wonder if penguins drink water? I wonder if baby penguins have friends, I wonder how fast they eat? I wonder what penguins feel like?).</p> <p>Discuss with students which questions can be investigated on your trip to Granite Island. Ask each pair to identify one question each.</p>	<p>Reception:</p> <p>Statements of observation</p> <p>Questions and answers</p> <p>Drawings to illustrate ideas.</p> <p>End of year 2</p> <p>Descriptions of observations</p> <p>Annotated diagrams</p> <p>Sequential explanation</p> <p>Procedures</p>
<p>Investigate, research and go deeper</p>	<p>Visit Day</p> <p>Enjoy a penguin picnic</p> <p>Same/ different Game</p> <p>Every pair has a toy penguin. Each pair discusses which features are the same as real life and which are different. They share with another pair for example, the colour of the toy penguin is the same as real life, the smell of real penguins is different.</p> <p>Students take their questions/wonderings. They explore the area, they have opportunities to observe penguins, develop and pose questions to gather information and data. They also interact with the guides, teachers and their peers to answer questions. They have time to complete their own inquiries.</p> <p>Together they investigate how pollution from people can affect the sea and penguins. They conduct their own investigation into how the sea can make the water clean.</p> <p>Students are supported to see how sand and sea grasses can filter water to make it clean.</p>	<p>Reception:</p> <p>Statements of observation – how real penguins use their wings</p> <p>Year 1/2:</p> <p>Descriptions of observations – what penguin wings are made of</p> <p>Questions and answers</p> <p>Gather information and data.</p> <p>Guided investigation</p> <p>Procedure and sequential explanation</p>

Explain	<p>The Wild Life of Penguins by Camilla de la Bedoyere (ISBN: 9781477755037) or a similar text that shares information on penguins, including what they eat, where they live, and how fast they swim.</p> <p>Students finish the sentence "If I were a penguin" with a fact they have learned about penguins.</p>	Awareness of self and the local world through observation
Extend	<p>Students discuss their investigation. Think Pair Share Students are given cards with pictures of items that may affect the quality of water and therefore the penguin diet. They discuss their card together then meet another pair with a different card and share their thinking. At the end of the session they record their thinking in a picture or diagram</p>	<p>Student reflections</p> <p>Response to learning</p> <p>Reception: drawing to represent ideas.</p> <p>Year 1 / 2: annotated diagram</p>
Reflect, respond and evaluate	<p>Students use the photos and videos taken at the visit to create a book digitally to reflect on their Penguin Party and they discuss what they know now that they did not know before. They give advice to others on how to keep the sea clean to protect the Penguins food and water. This can be uploaded to the class blogs section of the website.</p>	<p>Recount Information report orally, digitally or handwritten</p>

GRANITE ISLAND Education Resource 1A

1. Quick Write Draw. In three minutes write or draw everything you already know about Penguin.

Predictions

2. Predict a penguin's favourite food?
3. How many different types of food they eat?
4. How fast do baby penguins grow?
5. Will the biggest penguin be as big as my drink bottle?
6. How small will the smallest be?

Compare you and a penguin growing up

Me when I was born	A new born penguin
Me when I was two	A penguin who is two

Me now	A penguin the same age as me
Me when I am grown up	A grown up penguin

Compare Granite Island penguins with an Emperor penguin:

Name:	Age:	School:
	Granite Island Penguin	Emperor Penguin
Size		
Colour		
Food		
Home		
Other differences		

Keeping water clean for penguins

Plan and conduct an investigation		
My question/ wondering: How does the sea keep water clean?		My Prediction:
Things I will change:	Things I will keep the same:	Things I will measure:
My investigation looks like this:		
Things I need:	I know it is a fair investigation because:	
My Observations:		
My thoughts:		
NAME:	Age:	SCHOOL:

Resources to support teaching and learning in this unit:

1. <https://australianmuseum.net.au/little-penguin-eudyptula-minor>;
2. http://kids.sandiegozoo.org/water_wings;
3. <http://www.sciencekids.co.nz/sciencefacts/animals/penguin.html>;
4. <http://www.kidzone.ws/animals/penguins/facts.htm>;
5. <http://kidworldcitizen.org/2013/01/23/penguins/>;
6. <https://seaworld.org/en/animal-info/animal-infobooks/penguin>;
7. Read "little penguins "by Steve Parish and "The penguin who wanted to fly" by Jill Tomlinson;
8. For schools using Primary Connections templates can be used.

UNIT 1A aims to address the following areas of the Reception Achievement Standard

By the end of the Foundation year, students describe the properties and behaviour of familiar objects. They suggest how the environment affects them and other living things.

Students share and reflect on observations, and ask and respond to questions about familiar objects and events.

UNIT 1A aims to address the following areas of the Year 1 Achievement Standard

By the end of Year 1, students describe objects and events that they encounter in their everyday lives, and the effects of interacting with materials and objects. They describe changes in their local environment and how different places meet the needs of living things.

Students respond to questions, make predictions, and participate in guided investigations of everyday phenomena.

They follow instructions to record and sort their observations and share them with others.

This unit aims to address the following areas of the Year 2 Achievement Standard

By the end of Year 2, students describe changes to objects, materials and living things. They identify that certain materials and resources have different uses and describe examples of where science is used in people's daily lives.

Students pose and respond to questions about their experiences and predict outcomes of investigations. They use informal measurements to make and compare observations. They record and represent observations and communicate ideas in a variety of ways.