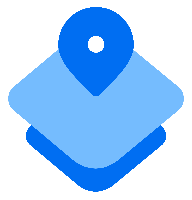
S2

Edumap

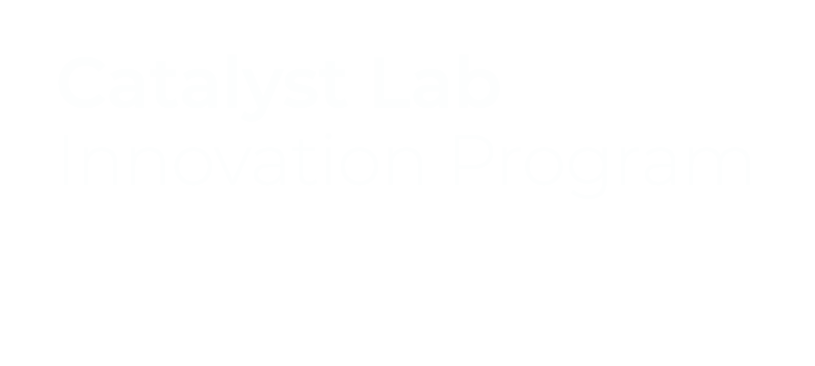
Learning from home program

# Bird quest

Discover and document local feathered friends. In this term-long program, students will learn all about the birds they see in their area. Students will study the birds’ observable features and look at how they fit into the local environment. The main focus areas are English, geography, and creative arts. Students will also explore the content through mathematics and science and technology. At the end of this program, students will come up with an idea to protect native birds in their area, by following a design thinking process. They will reflect on their learning, provide feedback to their peers, and evaluate the success of their solution.

Year/s – 3 and 4

Duration – 1 term

**Key learning areas –** English, mathematics, science and technology, geography, creative arts

## decorativeEdumap

## About this resource

This resource has been developed by the teachers-in-residence on the Edumap project. The lessons and materials have been adapted from our applied learning programs to assist teachers and families with students who are learning from home during the COVID-19 pandemic.

Note for use – The texts and materials used in this program should be changed to suit the resources available to the school. Teachers may wish to record themselves reading a text, to send to students via a learning platform, email, or on a USB stick.

Each lesson starts with a teaching component followed by various student activities. Teachers can select which are most relevant for their students and customise to suit the needs of the students and their class. The lessons have been adapted significantly from standard classroom practice. This program is written with the assumption that ongoing teacher feedback and adjustment will not occur as frequently as in the physical classroom.

We hope you enjoy using these teaching and learning resources with your students. If you have feedback or would like to find out more about Edumap, please contact us at edumap.support@det.nsw.edu.au.

Post your work and show us what you’re up to! We’d love to share your projects with our community of home learners. Use these hashtags on your preferred social media platform **#Edumap #learningfromhome** and/or mention us on Twitter **@CatalystLabNSW**.

### About Edumap

Edumap is a pedagogical model and digital platform that promotes deep student engagement and understanding. The Edumap digital platform allows teachers to search, customise, create, and share high-quality, applied learning teaching programs for primary school students. It is a teacher-led initiative and all programs are co-designed with teachers.

Edumap is being developed by NSW Department of Education teachers in the Catalyst Lab Innovation Program.

### About the Catalyst Lab Innovation Program

The Catalyst Lab Innovation Program supports teachers in developing solutions to education challenges that will improve outcomes for students and schools.

We support the department in other ways as well, visit the [Catalyst Lab Innovation Program website](http://www.education.nsw.gov.au/catalyst-lab) for more about what we do.

## Resources

| Physical resources | Stationery | Technology and digital resources |
| --- | --- | --- |
| Picture books   * “Circle” by Jeannie Baker * “The hollow tree” by Mark Mordue, Robyn Chiles and Inner West school children * “Kookoo Kookaburra” by Gregg Dreise   Daily reading for enjoyment   * “Waddle Giggle Gargle” by Pamela Allen * “Clever Crow” by Nina Lawrence Illustrated by Bronwyn Bancroft * “Animalia” by Graeme Base * “Feathers for Phoebe” by Rod Clement * “Cunning Crow” by Gregg Dreise * “Mad Magpie” by Gregg Dreise * “Silly Birds” by Gregg Dreise * “The Cassowary's egg” by Garry Flemming * “Mr Chicken goes to Paris” by Leigh Hobbs * “Lyrebird! A True Story” by Jackie Kerin * “Edward the Emu” by Sheena Knowles, Rod Clement * “Edwina the Emu” by Sheena Knowles, Rod Clement * “How Frogmouth Found Her Home” by Ambelin Kwaymullina * “Black Cockatoo” by Carl Merrison Hakea Hustler * “Eagle, crow and emu” by Gladys Milroy and Jill Milroy * “The Rainbirds” by David Metzenthen and Sally Rippin * “Little Bird's Day” by Sally Morgan * "The Albatross" By Bruce Pickworth and Lorraine Robertson * “Our Birds: Ŋilimurruŋgu Wäyin Malanynha” by Siena Stubbs * “Don’t let the pigeon drive the bus!” by Mo Willems * “The pigeon finds a hot dog” by Mo Willems * “The pigeon wants a puppy!” by Mo Willems * “Dancing Charli” by Ant Wood and Lorraine Robertson * “Flaming Charli” by Ant Wood and Lorraine Robertson * “Wandihnu and the Old Dugong” by Elizabeth Wymarra and Wandihnu Wymarra | * daily journal (blank or lined) * workbook (lined) * paper * scissors * glue * sticky tape * lead pencils * coloured pencils * markers * watercolour paints * paintbrushes * grid paper * sticky notes * 30cm ruler * cardboard   Other   * boxes from around the house | Devices   * tablet (if available) * laptop (if available) * desktop computer (if available)   Applications   * Seesaw * Adobe Connect |

## Syllabus outcomes

English

**EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience and language

**EN2-3A** – uses effective handwriting and publishes texts using digital technologies

**EN2- 7B** – identifies and uses language forms and features in their own writing appropriate to a range of purposes, audiences and contexts

**EN2-8B** – identifies and compares different kinds of texts when reading and viewing and shows an understanding of purpose, audience and subject matter

**EN2- 9B** – uses effective and accurate sentence structure, grammatical features, punctuation conventions and vocabulary relevant to the type of text when responding to and composing texts

**EN2- 10C** – thinks imaginatively, creatively and interpretively about information, ideas and texts when responding to and composing texts

**EN2- 12E** – recognises and uses an increasing range of strategies to reflect on their own and others’ learning

Mathematics

**MA2-1WM** – uses appropriate terminology to describe, and symbols to represent mathematical ideas

**MA2- 9MG** – measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures, compares and records temperatures

**MA2- 18SP** – selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs

Science and technology

**ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity

**ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions

**ST2-4LW-S** – compares features and characteristics of living and non-living things

Geography

**GE2- 1** – examines features and characteristics of places and environments

**GE2- 2** – describes the ways people, places and environments interact

**GE2- 3** – examines differing perceptions about the management of places and environments

**GE2- 4** – acquires and communicates geographical information using geographical tools for inquiry

Creative arts

**VAS2.1** – represents the qualities of experiences and things that are interesting or beautiful by choosing among aspects of subject matter

**VAS2.2** – uses the forms to suggest the qualities of subject matter

**VAS2.3** – acknowledges that artists make artworks for different reasons and that various interpretations are possible

**VAS2.4** – identifies connections between subject matter in artworks and what they refer to, and appreciates the use of particular techniques

## Assessment overview

For – teacher questioning, feedback, discussion, learning intentions and success criteria (LISC)

As – student questioning, student reflections

Of – work samples, teacher observations and discussions

## Program overview

| English | Mathematics | Science and technology | Geography | Creative arts |
| --- | --- | --- | --- | --- |
| Comprehending  Summarising  Finding keywords | Learning about length by building a nesting box for a bird | Learning about living things with a focus on birds | Learning about environments and their significance | Studying Australian artists |
| Composing imaginative texts  Composing digital texts  Handwriting | Collecting data on birds and graphing it | Learning about the connectedness of living things | Exploring Aboriginal and Torres Strait Islander histories, cultures and perspectives | Exploring a range of art forms including sculpture, drawing, painting |
| Reading for enjoyment  Responding to texts  Comparing texts | Interpreting graphs displaying data on birds | Exploring local habitats and their features | Using maps and spatial technology | Making artworks |
| Giving feedback  Reflecting on learning |  | Using a design thinking process to create a solution to a need |  |  |

## Lesson sequence 1

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2- 1** – examines features and characteristics of places and environments  **EN2- 12E** – recognises and uses an increasing range of strategies to reflect on their own and others’ learning |  |
| Learning intention | We are learning to identify what we already know about a topic.  This is because we are reflective learners and it is important to identify what we already know and what we want to learn. |  |
| Success criteria | We can:   * discuss what we know about birds. * discuss what we want to learn about birds. |  |
| Teaching component | Read ‘The Rainbirds’ by David Metzenthen and Sally Rippin for enjoyment.  Introduction to the program  Welcome students to the program. List the resources they’ll need for every lesson including their workbook and daily journal. Teacher to introduce the inquiry question for the unit.  Inquiry question – how can we protect native birds in our local area?  Introduce the KWL chart (What I Know, What I Want to Know, What I Learned).  Write what they already know and what they would like to know about this inquiry question on the KWL chart. | “The Rainbirds” by David Metzenthen and Sally Rippin  [KWL Chart worksheet](https://docs.google.com/document/d/1f4732VWHqTk5IeLecxrNZ1YB5yahX7drjwrm00_bvUk/template/preview) |
| Student activity | KWL chart  Students write their KWL chart. If unable to access the KWL chart, students draw a chart in their workbook (draw three columns with the headings including ‘What I Know’, ‘What I Want to Know’, ‘What I Learned’). | [KWL Chart worksheet](https://docs.google.com/document/d/1f4732VWHqTk5IeLecxrNZ1YB5yahX7drjwrm00_bvUk/template/preview) |
| Student activity | Daily observations journal  Students set up their daily journal. Their first task is to look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)?  Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity | Make a pair of binoculars  Using resources at home, students make their binoculars. Decorate using whatever they can find from around the house. For example, paint, crayons, markers, pencils or foil.  Refer to the video ‘How to make binoculars’.  Students use their binoculars each day when bird watching or during their daily observations. | Toilet rolls or cardboard  Ribbon or string  Staples  Sticky tape  How to make binoculars video |
| Student activity (optional) | Backyard bird count  What is the backyard bird count? Why do they organise it? Watch the video and record answers in workbook. | [Backyard bird count video](https://www.abc.net.au/btn/classroom/backyard-bird-count/10527476) |
| Assessment | Have students added their background knowledge to the chart?  Have they thought carefully about what they might like to learn?  Optional – students upload a photo or screenshot of their KWL chart to Seesaw. |  |
| Reflection | Why is it important to think about what we already know and what we would like to know more about?  What are you most excited to learn about? Why? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 2

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-4LW-S** – compares features and characteristics of living and non-living things |  |
| Learning intention | We are learning to understand how and why scientists classify living things in a certain way. |  |
| Success criteria | We can:   * discuss why scientists classify animals. * explain how animals are classified. * explain how birds are classified. |  |
| Teaching component | Read ‘Waddle Giggle Gargle’ by Pamela Allen for enjoyment.  Scientific classification of animals  Ask students the following questions and discuss:   * Why do scientists classify animals? Read Classification fact sheet 1 for more information. * Scientists classify the animals, as they do the plants, based on shared physical characteristics. Overall, the reason scientists classify living things is to understand the relationships between different organisms. * How do you think animals are classified? How can we group animals that are similar together?   Read Classification fact sheet 2 from the Australian Museum to answer the following questions:   * What are kingdoms? * How do we divide the animal kingdom? | “Waddle Giggle Gargle” by Pamela Allen  [Classification fact sheet 1](https://drive.google.com/file/d/10E0oqgxWFC8gD8aiALvTe4-4VZ3GfMIn/view)  [Classification fact sheet 2](https://drive.google.com/file/d/1IT0R2NyyEOf0XJgA1vpegcBNIxLhv5MQ/view) |
| Student activity | Animal kingdoms  There are five animal kingdoms – Animal, Plant, Fungi, Protist, and Monera (unicellular).  Write the five animal kingdoms as headings at the top of the page. Add as many examples as you can of animals that can be classified into that kingdom. | Workbook |
| Teaching component | Classifying birds  How can you classify birds? Make a list of different ways to classify birds. For example, by beak, colour, habitat, or diet.  Read the following website about featured bird groups and select one group of birds. Explain how they are grouped as different from other types of birds. | [Featured bird groups](http://www.birdsinbackyards.net/birds/Featured-Bird-Groups) |
| Student activity (optional) | Extra information about birds  Students read the following websites and add more information to their workbook | Workbook  Bird identification – [The 30 main bird groups](https://www.thoughtco.com/basic-bird-groups-4093407)  Bird identification – How do I identify a bird? |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journal. | Daily journal  Pencil |
| Student activity (optional) | Why is a magpie’s poo black and white?  Read the article and write the answer in your workbook. | [Why is a magpie's poo black and white?](https://education.abc.net.au/newsandarticles/blog/-/b/2991237/curious-kids-why-is-a-magpies-poo-black-and-white) |
| Assessment | Students upload a work sample via Seesaw.  Do they understand the basic ideas behind why and how animals and birds can be grouped together? |  |
| Reflection | Why do scientists classify animals?  What are the different ways they can classify them? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 3

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-4LW-S** – compares features and characteristics of living and non-living things |  |
| Learning intention | We are learning to identify the features of birds. |  |
| Success criteria | We can:   * describe the physical features of birds. * identify keywords in a text that relate to the topic. * explain the life cycle of a bird by annotating a drawing. |  |
| Teaching component | Read ‘Cunning Crow’ by Gregg Dreise for enjoyment.  Features of birds  Teacher selects one of the birds from the following site and reads the text. Point out technical language such as plumage, bill sheaths, immature. Write keywords from the text that relate to the topic.  What are the common physical features of birds? Beak, claws, wings, feathers  What are the specific physical features of the bird they have chosen?  What is the lifecycle of a bird? Read the text and point out the technical language.  Teacher shows how to draw the first stage and annotate using vocabulary from the text. | “Cunning Crow” by Gregg Dreise  [Birds – Australian Museum website](https://australianmuseum.net.au/learn/animals/birds/)  [The life cycle of a bird](https://www.birdspot.co.uk/identifying-birds/the-life-cycle-of-a-bird) |
| Student activity | Features of birds  Students select a different bird from the following site and read the text.  What are the specific physical features of the bird they have chosen? What do they eat? | [Birds – Australian Museum website](https://australianmuseum.net.au/learn/animals/birds/)  [Video about birds](https://www.youtube.com/watch?v=8vL_2rF8JHU) |
| Student activity | What is the lifecycle of a bird?  Students draw the life cycle and annotate each stage with keywords. | [The life cycle of a bird](https://www.birdspot.co.uk/identifying-birds/the-life-cycle-of-a-bird) |
| Student activity | Birdwatching  Using their homemade binoculars, students birdwatch from their window or backyard. Students look for the following features:   * Size * Shape * Colour * Habitat   (Refer to websites) | Bird identification – How do I identify a bird?  [Bird identification tips and tricks](https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/birdwatching/how-to-identify-birds/bird-identification-tips-and-tricks/) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journal. | Daily journal  Pencil |
| Student activity (optional) | Stop motion bird life cycle  For this activity, students will need to have the Stop Motion app downloaded on their device.  Using playdough, clay, drawings or building bricks or blocks, students create a stop-motion video of a bird life cycle. Students must show each stage of the life cycle. They may include text and music to accompany the visuals.  Students post their videos to Seesaw. | [Stop motion animation examples](https://tinkerlab.com/easy-stop-motion-animation-kids/)  Tablet  Stop Motion app  Playdough  Clay  Building bricks or blocks  Drawing materials |
| Student activity (optional) | How do birds see where they are going?  Read the article and write the answer in your workbook. | [How do birds see where they are going?](https://education.abc.net.au/newsandarticles/blog/-/b/2951942/curious-kids-how-do-birds-see-where-they-are-going) |
| Assessment | Students upload work sample to Seesaw.  Can they read a text for keywords?  Can they annotate their drawing of a lifecycle with keywords from the text? |  |
| Reflection | Students identify the most interesting fact they learned about birds. |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 4

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **MA2- 18SP** – selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs |  |
| Learning intention | We are learning to collect, graph, and interpret data.  This is because graphs are frequently used in real life to persuade and/or influence the reader. We need to know if they are accurate or biased before we use the information. |  |
| Success criteria | We can:   * use tally marks to collect data on birds. * graph data visually. * use the correct terms to identify parts of a graph. |  |
| Teaching component | Read ‘Little Bird's Day’ by Sally Morgan for enjoyment.  Data and graphs  What is data? Data is a general term for a set of observations and measurements collected during any type of systematic investigation.  What does this mean?  What do we collect data on? Why do we collect data? What types of data could we collect about birds?  For example, How many birds are there in a region? How many eggs do they lay?  Today we are going to collect data on what types and how many birds are in our area.  Together, predict what types of birds students might see to create the categories.  Then we will graph the birds by type. What type of graph should we use? Why?  Show students a sample of a picture or column graph. Point out one-to-one correspondence, vertical axis and horizontal axis. | “Little Bird's Day” by Sally Morgan |
| Student activity | Collect data  Make a collection sheet to use to collect the bird data.  Set a timer for 15 minutes. Use tally marks to count the number of birds. |  |
| Student activity | Graph the data  Use grid paper or make a grid and construct a picture or column graph.  Make sure it has one-to-one correspondence. |  |
| Student activity | Make a digital graph  Use a graphing software like Microsoft Excel to enter your data and create column graphs that represent data. Create a range of other types of graphs. Which graph is most useful? Why? | Excel spreadsheet  [Excel for kids tutorials](https://www.tes.com/lessons/yo_PVVEk0p7YCA/excel-for-kids) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Students submit their work to the teacher.  Schedule small group sessions to provide feedback on progress. |  |
| Reflection | What is data?  Why do we represent it visually in graphs?  Where do you see graphs in real-life? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 5

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **MA2- 18SP** – selects appropriate methods to collect data, and constructs, compares, interprets and evaluates data displays, including tables, picture graphs and column graphs |  |
| Learning intention | We are learning to read and interpret graphs.  This is because graphs are frequently used in real life to persuade and/or influence the reader. We need to know if they are accurate or biased. |  |
| Success criteria | We can:   * interpret graphs. * evaluate graphs. |  |
| Teaching component | Read ‘Dancing Charli’ by Ant Wood and Lorraine Robertson for enjoyment.  Scientific collection of data  What do scientists collect data on? Why?  Scientists collect data to learn more about the world. If they collect data over time, then they can look for patterns and then investigate what is causing these patterns.  Look at an example of a column graph. What is the information telling us? Focus on the total column rather than coloured parts of the column graph.  Which country has the most amount of species? Why might this be so?  Co-construct three more questions to ask and ask students to answer them.  Look at this line graph. Is it clear what information they are telling us? Why or why not? For example, hard-to-read axes. | “Dancing Charli” by Ant Wood and Lorraine Robertson  [Lesson five-column graph](https://drive.google.com/file/d/19tZXZTxL4B_nzEBqdyd9s9m7fRS5TwdC/view?usp=sharing) |
| Student activity | Interpreting graphs  Look at the graph.  Write five questions for a friend or family member to answer. | [Lesson five penguin graph](https://drive.google.com/file/d/1a74d7cbedhg5M1R2S3Gm66J9tNag0HPO/view?usp=sharing) |
| Student activity | Find graphs in real life  Find samples of graphs in real life. What information are they trying to give you? Is it clear and easy to understand? Why or why not? | Newspaper  Websites |
| Student activity (extension) | Interpreting graphs  Look at the graph provided. What is this graph telling us? | [Lesson five penguin graph](https://drive.google.com/file/d/1a74d7cbedhg5M1R2S3Gm66J9tNag0HPO/view?usp=sharing) |
| Student activity – extension | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Students submit their work to the teacher.  Schedule small group sessions to provide feedback on progress. |  |
| Reflection | Why do we graph data?  Where do you see graphs in real life? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 6

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2-2** – describes the ways people, places and environments interact |  |
| Learning intention | We are learning to identify the connections between people and birds. |  |
| Success criteria | We can:   * identify the importance of birds in Aboriginal culture. * discuss the connections the Aboriginal people have with birds. * explain what a totem is and how they protect animals. |  |
| Teaching component | Read ‘Silly Birds’ by Gregg Dreise for enjoyment.  Aboriginal and Torres Strait Islander connections  In this lesson, students will learn about the custodial responsibility Aboriginal and Torres Strait Islander Peoples have for country and place, and how this influences views about sustainability.  Explain the diversity of Aboriginal and Torres Strait Islander culture and history. Look at the AIATSIS map of Indigenous Australia and ask students what each colour represents.  Explain that Aboriginal and Torres Strait Islanders culture differs depending on the country you are on.  Dreaming stories across Australia show the connection of ancestral beings to cultural stories related to water sources. Aboriginal peoples used the presence of particular birds, animals, and plants to find water. For instance, they have long recognised that, in some areas, many species of bird, animal, and plant life could not exist without a constant water source. Similarly, they know that following certain other species during seasonal movements of animals would lead the trackers directly to water. Birds such as the Zebra finch, Striated pardalote and Red-browed pardalote, for example, are excellent at finding water in the desert.  A totem is a natural object, plant, or animal that is inherited by members of a clan or family as their spiritual emblem. Totems define peoples' roles and responsibilities, and their relationships with each other and creation. | “Silly Birds” by Gregg Dreise  [AIATSIS map of indigenous Australia](https://aiatsis.gov.au/explore/articles/aiatsis-map-indigenous-australia)  [Aboriginal people’s connection to the land](https://www.qm.qld.gov.au/Find+out+about/Aboriginal+and+Torres+Strait+Islander+Cultures/Land" \l ".XoAoMKgzaUm)  [Indigenous Australians – Aboriginal and Torres Strait Islander people](https://aiatsis.gov.au/explore/articles/indigenous-australians-aboriginal-and-torres-strait-islander-people) |
| Student activity | The significance of Umburra, or black duck  Watch the video about Birds and Totems.  Students write a small paragraph, explaining Bruce’s family’s connections to birds. Also, write about how you think these connections help to keep certain species of birds protected. | [Birds and totems](https://education.abc.net.au/home#!/media/3124154/birds-and-totems) |
| Student activity | Dreaming story  Listen to the dreaming story ‘Dunbi the Owl’ by Daisy Utemorrah and Pamela Lofts.  How does this story illustrate the importance of birds (particularly owls) in her culture? What do you think is the moral of this story? | [Video of ‘Dunbi the Owl’ by Daisy Utemorrah and Pamela Lofts](https://www.youtube.com/watch?v=2960SqIUHA4) |
| Student activity | Little Yarns podcast  Listening carefully, travel to Gamilaroi country on the NSW/QLD border to meet Rudi’s mum, Kerry! Keep your eyes peeled for dhinawan (emu) tracks. | [Little Yarns podcast – Emu in Gamilaraay](https://www.abc.net.au/kidslisten/little-yarns/emu-in-gamilaraay/11252356) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Do students understand the connection that different Aboriginal groups have to specific birds? |  |
| Reflection | Why are birds important in Aboriginal culture? What is a totem is and how do they protect animals? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 7

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2- 10C** – thinks imaginatively, creatively and interpretively about information, ideas, and texts when responding to and composing texts  **GE2-2** – describes the ways people, places and environments interact |  |
| Learning intention | We are learning to identify the connections between people and their environment. |  |
| Success criteria | We can:   * locate the Torres Strait on a map. * explain how life in the Torres Strait is similar and different to our own. * identify the importance of birds in Torres Strait Islander culture. |  |
| Teaching component | Read ‘Wandihnu and the Old Dugong’ by Elizabeth Wymarra and Wandihnu Wymarra  Where is the Torres Strait? Find it on the AIATSIS map of Indigenous Australia.  Watch the video about Patty Mills, NBA champion. What are your first impressions of the Torres Strait?  What is a Dhari? You may have seen one in the Patty Mills video. Read over the fact sheet about Dharis. Show students how to highlight keywords in the text. | “Wandihnu and the Old Dugong” by Elizabeth Wymarra and Wandihnu Wymarra  [AIATSIS map of indigenous Australia](https://aiatsis.gov.au/explore/articles/aiatsis-map-indigenous-australia)  [Patty Mills returns home to the Torres Strait video](https://www.youtube.com/watch?v=2p_TzslJFJw)  Queensland Museum – Dhari |
| Student activity | Going to school in the Torres Strait  Watch video about visiting the Torres Strait. Let students know it is a bit old, so it features a former prime minister. How is life in the Torres Strait similar and/or different to our daily life?  Draw a Venn diagram. Include a title on one side for you and one on the other circle for students from the Torres Strait. Add features that are similar where the two circles intersect. | [Visit the Torres Strait video](https://education.abc.net.au/home#!/media/2182257/visit-the-torres-strait-) |
| Student activity | Frigate Bird and Torres Strait Pigeon  Skim and scan the article for the words, frigate bird and Torres Strait pigeon. Why are their feathers significant? What other cultures use feathers in a similar way? Research either the Frigate Bird or the Torres Strait Pigeon. Draw a picture and write a paragraph describing the bird. | [10 things you may not know about the Torres Strait Islands](https://www.sbs.com.au/nitv/article/2016/09/29/10-things-you-may-not-know-about-torres-strait-islands) |
| Student activity | Imagine  Imagine you are a bird flying over the Torres Strait Islands. What can you see, feel and hear?  Write in your workbooks and draw a picture. | Workbook |
| Student activity | Learning a song  Learn the song “My Island Home” by Christine Anu. Perform your song. You may like to accompany it with an instrument or even create a film clip. | [My Island Home song](https://www.youtube.com/watch?v=OSFGK9HlEto) |
| Student activity | Little Yarns podcast  Listen to the podcast. Learn how to say crocodile and cassowary in Kalaw Kawaw Ya. | [Little Yarns Podcast](https://www.abc.net.au/kidslisten/little-yarns/crocodile-cassowary-kalaw-kawaw-ya/12058748) |
| Student activity (optional) | Interesting facts  Read the article about the Torres Strait Islands.  Write three interesting facts about the Torres Strait Islands. Justify why they are interesting. | [10 things you may not know about the Torres Strait Islands](https://aiatsis.gov.au/explore/articles/indigenous-australians-aboriginal-and-torres-strait-islander-people) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Can students locate the Torres Strait on a map? Can they explain how life in the Torres Strait is similar and different to their own? |  |
| Reflection | What new aspects have you learned about life in the Torres Strait?  Why is it important to learn about other cultures? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 8

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2- 10C** – thinks imaginatively, creatively and interpretively about information, ideas, and texts when responding to and composing texts  **VAS2.3** – acknowledges that artists make artworks for different reasons and that various interpretations are possible  **VAS2.4** – identifies connections between subject matter in artworks and what they refer to and appreciates the use of particular techniques |  |
| Learning intention | We are learning to appreciate art. |  |
| Success criteria | We can:   * acknowledge the artists’ style. * understand the purpose of their art. * identify what makes their art unique. * create our own artwork inspired by the artist. |  |
| Teaching component | Read ‘Lyrebird! A True Story’ by Jackie Kerin for enjoyment.  Students listen to or watch the Aboriginal Dreaming Story Waatji Pulyeri (The Little Blue Wren)  What is the moral of this story?  The moral of this Dreamtime story is the acceptance of one’s uniqueness. That individuality is part of your identity and you have been created uniquely.Comparing yourself to others is detrimental to your confidence and your success in learning.  Introduce students to Australian Indigenous book illustrator, Bronwyn Bancroft. View pictures of her artwork and book illustrations. Ask students to list what they notice about her artistic style (she uses a lot of dots, lines, patterns, and bright colours). Why do you think she uses this style in her art? | “Lyrebird! A True Story” by Jackie Kerin  [Waatji Pulyeri (The Little Blue Wren) video](https://www.youtube.com/watch?v=Sle62XV0BO0)  [Waatji Pulyeri (The Little Blue Wren) text (PDF 347KB)](https://www.earlylearningservices.com.au/wp-content/uploads/sites/33/2013/08/Waatji-Pulyeri-The-Little-Blue-Wren.pdf)  [Bronwyn Bancroft website](https://www.bronwynbancroft.com/artworks) |
| Student activity | Bird artwork  Students watch or read the story Waatji Pulyeri (The Little Blue Wren).  Watch the video Draw with Bronwyn.  Students draw the birds from the story in Bronwyn Bancroft’s style.  The birds include a magpie, blue wren, pelican, eagle, and owl.  Students first sketch the outline of their birds using a lead pencil. They then use coloured pencils or markers to outline and add patterns and designs to their bird. Students use Bronwyn Bancroft’s art style as inspiration to create beautifully coloured, patterned artworks.  If available, students can cut and paste their birds onto a black piece of paper or cardboard. | [Draw with Bronwyn Bancroft video](https://education.abc.net.au/home#!/media/1912990/)  [Sample of artwork](https://docs.google.com/document/d/1rLzV_ej8Mm7ZDEGyO8xWZjmprCoeVYtLCKxxSo91HWQ/template/preview)  Tablet  Print out of written text  Workbook or journal  Blank paper  Coloured pencils or markers  Lead pencil  Eraser  Optional – black paper, cardboard, scissors, glue |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Why do birds sing?  Read the article and write the answer in your workbook. | [Why do birds sing?](https://education.abc.net.au/newsandarticles/blog/-/b/3087037/curious-kids-why-do-birds-sing) |
| Assessment | Bird artwork work sample |  |
| Reflection | What are the features that make Bronwyn Bancroft’s artwork unique?  How do artists and their styles differ? Why do you think this is? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 9

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **VAS2.3** – acknowledges that artists make artworks for different reasons and that various interpretations are possible  **VAS2.4** – identifies connections between subject matter in artworks and what they refer to, and appreciates the use of particular techniques |  |
| Learning intention | We are learning to appreciate art. |  |
| Success criteria | We can:   * acknowledge the artists' style. * understand the purpose of their art. * identify what makes their art unique. * create our own artwork inspired by the artist. |  |
| Teaching component | Read ‘Black Cockatoo’ by Carl Merrison Hakea Hustler for enjoyment.  Leila Jeffrey’s photographs  View Leila Jeffrey’s photographs on her website.  What does she take photos/videos of? Birds, birds in nature, bird portraits.  Why does she photograph birds only? What is she inspired by? Read the ‘about’ section on the website.  What do you have to consider when taking photographs?   * The camera is focused (not blurry) * You are holding the camera still * Your object of focus is in the frame * Do you want it to be shot in portrait or landscape? * The direction of the sun in relation to your photos (if the sun is shining onto your camera this will affect the quality of your photo. Ideally you want the sun shining on your object or not much sun at all). * When editing, do you want to; brighten the colours? Sharpen/soften the image? Add the same filter on all photos? | “Black Cockatoo” by Carl Merrison Hakea Hustler  [Leila Jeffrey’s website](https://www.leilajeffreys.com/works) |
| Student activity | Artist’s style  In your workbooks or journals, write keywords to describe her photography style (bright, colourful, close-up, portrait, clear, detailed).  How are the photographer's photos organised on her website? What are the groups/categories she’s created for the different birds she’s photographed? Would you categorise them this way? Why/why not? | [Leila Jeffrey’s website](https://www.leilajeffreys.com/works)  Workbook |
| Student activity | Photography  Take photos or videos of birds or nature in your area using a device. Will you have a theme for your photos? For example, you might only take photos of the same bird species such as myna birds or magpies, or photograph colourful, black or white birds, or small/large birds. Can you identify the birds you’ve photographed? Edit your best photos or video and save. Create a name or title for each of your photographs. | Tablet or device with a camera |
| Student activity (optional) | Hold an exhibition  Print your photos and hang them in a special room in your house. Create invitations (paper or electronic) and invite your family members to your gallery to view the works. | Printer  Paper  Frames (optional)  [Website for creating online invitations](https://www.paperlesspost.com/) |
| Student activity | Daily observations journal  Students set up their daily journals. Their first task is to look out the window/sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)?  Students write or draw their findings in their journals. | Daily journal |
| Assessment | Students upload photo/s to Seesaw. |  |
| Reflection | Why is art important in life?  How do you feel when you look at Leila Jeffery’s work? Why? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 10

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2-1** – examines features and characteristics of places and environments |  |
| Learning intention | We are learning to identify different types of environments. |  |
| Success criteria | We can:   * describe different environments and their features. * identify the type of environment we live in. |  |
| Teaching component | Read ‘Edward the Emu’ by Sheena Knowles, Rod Clement for enjoyment.  Different types of environments  Discuss the names of the different types of environments, including woodland, wetland, rainforest environments, heathland, coastal, grassland, NSW alpine, eucalypt forest, cave and karst desert and arid shrubland environments.  Predict the features of each of these environments based on their name.  What type of environment do you live in? How do you know? List the features of your home environment.  Read over the websites with information about each type of environment. Select one type of environment and show students how to skim and scan the text to find keywords. Is this the environment we live in? Decide yes or no based on the keywords. | “Edward the Emu” by Sheena Knowles, Rod Clement  [Types of environments](https://www.nationalparks.nsw.gov.au/search?term=environments)  [Natural habitats of birds](http://www.birdsinbackyards.net/birds/Natural-Habitats-Birds) |
| Student activity | Our local environment  What type of environment do you live in? How do you know? List the features of your home environment. Check by skimming and scanning the website information to see if you are correct.  What type of environment is your school in? How do you know? List the features of your school environment. Do any of your family or friends live in one of the other environments? | [Types of environments](https://www.nationalparks.nsw.gov.au/search?term=environments)  [Natural habitats of birds](http://www.birdsinbackyards.net/birds/Natural-Habitats-Birds) |
| Student activity | Draw the local environment  Sit in your backyard or by your window and draw what you see. Look carefully and draw all the details. Look carefully at the natural features and see which of them is consistent with the website information. | Workbook  Pencils |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity | Noongar connection to place  Watch this video and describe how the Noongar people are connected to place. | [Noongar people speak about a sense of place](https://education.abc.net.au/home#!/media/152132/noongar-people-speak-about-a-sense-of-place) |
| Assessment | Can students skim and scan a text for keywords? Can they identify the type of environment they live in based on the text? |  |
| Reflection | What do you love most about your environment? If you could live in any other type of environment, what would it be and why? Write in your journal. |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 11

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2-1** – examines features and characteristics of places and environments |  |
| Learning intention | We are learning to identify the habitats of birds. |  |
| Success criteria | We can:   * explain the types of homes and environments birds live in. * discuss the importance of environments to living things. * explain the impact of human activity on the natural environment. |  |
| Teaching component | Read ‘The Hollow Tree’ by Mark Mordue, Robyn Chiles, and Inner West school children.  Ask students what they know about the different types of bird homes and habitats such as hollows, nests, rocky cliffs and glaciers.  These will vary based on the type of environment they live in. See the website link for more information.  Read the article about bird numbers. Highlight any technical language. Discuss the following questions.  Why are bird numbers decreasing? Why do we need to protect these natural habitats? What can we do? | “The Hollow Tree” by Mark Mordue, Robyn Chiles and Inner West school children.  [Natural habitats of birds](http://www.birdsinbackyards.net/birds/Natural-Habitats-Birds)  [Newspaper article about bird numbers](https://www.theguardian.com/environment/2015/jul/15/kookaburra-and-magpie-among-australian-birds-in-decline-says-report) |
| Student activity | List and draw diagrams of at least 3 different types of homes birds might live in.  For example, hollows, nests, burrows, tree branches. Label the features of each habitat. | Workbook  Pencil |
| Student activity | Explore bird habitats of birds in your local area  Where do you see birds the most in your area?  Why do you think this is? What trees, plants are in your area? Where do you think the birds live? Why?  Possible answers include:   * enough space for their nest * close to the water * shaded * in the sun * eat the fruits/leaves on the tree |  |
| Student activity | Improving local habitat  Read the article. What three actions can you take to improve your garden or local area for small birds? | [Making a habitat for small birds](https://www.backyardbuddies.org.au/habitats/habitat-for-small-birds) |
| Student activity | Home sweet home  If you were a bird, where would you make your home? Why? Make a drawing of you as a bird in your house. |  |
| Student activity (optional) | Where do pretty parrots make their home?  Watch the video and record answers in your workbook. | Workbook  Pencils  [Pretty parrots video](https://education.abc.net.au/home#!/media/2524356/pretty-parrots) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | What is the Hollows as Homes project?  Read the website and answer in your workbook. If you have a hollow in your area you may like to register it on the site. | [Hollows as Homes project website](https://www.rbgsyd.nsw.gov.au/hollows-as-homes/hollows-as-homes)  Workbook |
| Student activity (extension) | Features and habitat  What birds have unique features which are necessary for their habitat? For example colour, feathers, size, beak, eyes. You may like to select an eagle, bowerbird, or lyrebird to conduct further research. |  |
| Assessment | Can students explain the range of homes a bird can live in? Do students understand the connection between human activity and the decline in bird sightings? |  |
| Reflection | Why do we need to think about our actions as humans? What can we do to make sure birds have homes? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 12

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience, and language  **EN2- 7B** – identifies and uses language forms and features in their own writing appropriate to a range of purposes, audiences and contexts |  |
| Learning intention | We are learning to create an informative text. |  |
| Success criteria | We can:   * identify the features of a fact sheet. * select a bird to research. * select the most important information to include on our fact sheet. * create a fact sheet for our selected bird. |  |
| Teaching component | Read ‘Clever Crow’ by Nina Lawrence Illustrated by Bronwyn Bancroft for enjoyment.  Fact sheets  Teacher to show students multiple examples of animal fact sheets. What information is included? What is the purpose? Who is the audience?  Create a checklist of the items students need to include. Before they submit it, they need to make sure they have every item on the checklist. Could include the image of the bird (photo or drawing), map of Australia showing where it lives, diet, habitat, description and any other interesting facts.  Optional – students upload their fact sheet onto Seesaw or send their fact sheet to their teacher. Teacher to collate all fact sheets and create a class book (e-book and/or hard copy) to upload to the classes’ online platform (such as Google classroom) or to keep in the classroom library. | “Clever Crow” by Nina Lawrence Illustrated by Bronwyn Bancroft  Australian Museum – [top 30 birds fact sheets](https://australianmuseum.net.au/learn/animals/birds/birds-in-backyards-top-30-urban-birds/) |
| Student activity | Make a fact sheet about a bird  Students create a fact sheet about a bird in their area. The fact sheet can be created digitally or on paper. | Paper  Pencils  Device (optional) |
| Student activity | Create a song and film clip  Watch the videos below and listen to the song about emus and cockatoos. Create a song for the bird you have written your fact sheet about. You may like to add music or accompany it with an instrument or even create a film clip.  What other songs about birds do you know? | [Emu song video](https://education.abc.net.au/home#!/media/104430/a-song-about-emus)  [Cockatoo song video](https://education.abc.net.au/home#!/media/102736/a-song-about-a-sulphur-crested-cockatoo) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Swift parrots  Watch this video and write down the keywords about swift parrots. | [Swift parrots video](https://education.abc.net.au/home#!/media/2451031/swift-parrots) |
| Student activity (optional) | Soaring Wedge-tailed eagles  Watch this video about soaring Wedge-tailed eagles and write down the keywords. | [Soaring wedge-tailed eagle video](https://education.abc.net.au/home#!/media/2524324/soaring-wedge-tailed-eagles) |
| Assessment | Fact sheet work sample |  |
| Reflection | Share your fact sheet with your family. Are they informed? Do they have any questions about the bird that you didn’t include on your fact sheet? If so, revise and add additional information. |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 13

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **VAS2.1** – represents the qualities of experiences and things that are interesting or beautiful by choosing among aspects of subject matter  **VAS2.2** – uses the forms to suggest the qualities of subject matter  **VAS2.3** – acknowledges that artists make artworks for different reasons and that various interpretations are possible  **VAS2.4** – identifies connections between subject matter in artworks and what they refer to and appreciates the use of particular techniques |  |
| Learning intention | We are learning to appreciate art. |  |
| Success criteria | We can:   * acknowledge the artists' style. * understand the purpose of their art. * identify what makes their art unique. * create our own artwork inspired by the artist. |  |
| Teaching component | Read ‘Edwina the Emu’ by Sheena Knowles, Rod Clement for enjoyment.  Ask students if they know any Australian or international artists who make artworks featuring birds. If they do, who are they are what type of artworks do they create?  Explain this lesson sequence will be about researching an artist. What kinds of information might we want to collect about an artist? Co-create a list of essential features. These could include name, birthplace, major influences, style of artwork and list of artworks.  Use Dana Kinter as an example. When was she born? Where does she live? Look it up on a map. Where does she draw her inspiration? What does her artwork include? What colours? Where can you find her artwork? Discuss why it is interesting to do research.  What types of websites can we trust? Can we copy information from the website and say we wrote it? No, we need to reference where we got the information from.  How will they present their findings? Decide as a class how they would like to do this. Could include Google Slides, PowerPoint presentations, Microsoft Word or Publisher files, or a video. | “Edwina the Emu” by Sheena Knowles, Rod Clement  [Dana Kinter website](https://www.danakinterartdesign.com/) |
| Student activity | Artist research task  Students research one of the following artists or select one of their own. They can present their findings in a format of their choice.  Possible artists to choose from:   * Bronwyn Bancroft * Geoffrey Carran * Egg picnic * Marguerite Derricourt * Dana Kinter * Roger Murcott * Thomas Jackson * William T. Cooper * Peter Cromer * Leila Jeffreys | [Bronwyn Bancroft website](https://www.bronwynbancroft.com/)  [Geoffrey Carran website](http://geoffreycarran.com.au/)  [Egg picnic website](https://eggpicnic.com/)  [Marguerite Derricourt website](http://www.margueritederricourt.com.au/)  [Dana Kinter website](https://www.danakinterartdesign.com/)  [Roger Murcott website](https://rogermurcott.com.au/gallery/)  [Thomas Jackson website](https://www.thomasjackson.com.au/)  [William T. Cooper website](https://www.williamtcooper.com.au/)  [Peter Cromer website](https://www.petecromer.com/)  [Leila Jeffreys website](https://www.leilajeffreys.com/works)  Microsoft PowerPoint, Word or Publisher  Google Slides  Digital camera  Device  Paper  Pencils |
| Student activity | Create an artwork  Students create an artwork inspired by the artist they selected. Justify why they chose the artwork and what inspired them. |  |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Are you connected to the bush?  Watch the video and explain why you are or are not connected to nature. | [Connected to the bush video](https://education.abc.net.au/home#!/media/1239352/are-you-connected-to-the-bush-) |
| Assessment | Bird artwork work sample.  Quality of student discussion. |  |
| Reflection | Why did you select your artist? How is their style unique/ or similar to other artists you know? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 14

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2-1** – examines features and characteristics of places and environments  **GE2-2** – describes the ways people, places and environments interact  **GE2-3** – examines differing perceptions about the management of places and environments  **GE2-4** – acquires and communicates geographical information using geographical tools for inquiry |  |
| Learning intention | We are learning about the connections between living things and their environments. |  |
| Success criteria | We can:   * identify how birds are connected to their environment. * how human actions can impact on this. |  |
| Teaching component | Read ‘Feathers for Phoebe’ by Rod Clement for enjoyment.  Pose the question – How are living things and their environments connected?  Read the fact sheet attached and discuss the role of birds in the ecosystem. | “Feathers for Phoebe” by Rod Clement  [Role of birds factsheet (PDF 255KB)](https://drive.google.com/file/d/1gJA8li5nL1xAWoj4EA-TnSJIGON3QSCz/view) |
| Student activity | Why we need birds  Read ‘Why we need birds (far more than they need us)’  What would happen if there were no birds?  Describe a world where birds don’t exist. What would it be like as a human? | [Why we need birds website](https://www.birdlife.org/worldwide/news/why-we-need-birds-far-more-they-need-us) |
| Student activity | Wedge-tailed eagles  Students watch chapter 7 on Wedge-tailed eagles and answer the following questions in their workbook.  Why were the eagles killed? What is their affectionate name? What helps them survive now? | [Wedge-tailed eagles video](https://education.abc.net.au/home#!/digibook/3047342/conservation-in-the-magical-land-of-oz) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Little penguins  Students watch chapter 9 The little penguin. How do humans help penguins on the island? | [Little penguins video](https://education.abc.net.au/home#!/digibook/3047342/conservation-in-the-magical-land-of-oz) |
| Assessment | Do students understand that species are interconnected in the ecosystem?  Did they identify the key roles that bird play? |  |
| Reflection | How are living things and environments connected? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 15

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience and language |  |
| Learning intention | We are learning to plan a story. |  |
| Success criteria | We can:   * share ideas. * use keywords, phrases or drawings. * update our ideas over time. |  |
| Teaching component | Read ‘Our Birds: Ŋilimurruŋgu Wäyin Malanynha’ by Siena Stubbs for enjoyment.  The writing process – planning  Explain that we are going to write a story about a bird who goes on an adventure.  Really great stories are not made in one day. Authors can take a long time, often years to make an awesome story.  What process do authors usually follow to make a text (book, film, play)?  Brainstorm, plan, draft, edit, draft, proofread, seek feedback and publish. Explain this is the basic process but authors continually edit and proofread to make their stories better.  First, we will plan the parts of the story. What parts does a story usually have? For example, setting, characters, orientation, complication, resolution.  Who will the story be for (audience)? What is the purpose (to entertain)?  For each part, students share their ideas. We know one of our characters must be a bird. What is our bird like? Physical features, personality, special talents, likes, dislikes.  Where will the bird go? Is it an imaginary or real place? What is it like there? Are there many locations?  Who will they meet? What problems will they face?  Students can make notes, draw, and talk about their ideas at this stage. | “Our Birds: Ŋilimurruŋgu Wäyin Malanynha” by Siena Stubbs |
| Student activity | The writing process – planning  Draw your characters and annotate using keywords.  Draw the setting and additional characters. | Workbook |
| Student activity | Sequencing events  Use sticky notes to sequence events in the story. Add extra sticky notes as you develop the story. | Sticky notes |
| Student activity (optional) | Explain your story to someone  Explain your story ideas to someone. Do they have questions about the characters, setting or plot? |  |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Writing lesson with Andy Griffiths  Watch this clip and think if you can add any notes to your story. | [Writing Lesson with Andy Griffiths video](https://www.youtube.com/watch?v=SomTyDyGRUo) |
| Student activity (optional) | Authors and their process  Read this article about the authors of the Treehouse books. | [Treehouse books article](https://www.theguardian.com/childrens-books-site/2016/apr/22/andy-griffiths-terry-denton-storey-treehouse-childrens-books) |
| Assessment | Do students understand that there is a process to writing?  Are they starting with an idea and developing it as they go? |  |
| Reflection | Why do we plan our writing before we start? Did your ideas change as you planned? Why? Why not? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 16

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience and language |  |
| Learning intention | We are learning to make a draft of our writing. |  |
| Success criteria | We can:   * use our plan to sequence our ideas. * add more ideas as we go to improve our writing. * not worry about spelling. |  |
| Teaching component | Read ‘Flaming Charli’ by Ant Wood and Lorraine Robertson for enjoyment.  The writing process – draft  Explain that the next step is to take our plan and turn it into a draft. Show how you can use sticky notes to write ideas for each sentence and then sequence them in order.  Ask students if the order looks right. What can we add or change? As a group write out a draft of the story as a model. | “Flaming Charli” by Ant Wood and Lorraine Robertson  Sticky notes  Sharpie pen |
| Student activity | Draft the story  Students use their ideas from the last lesson and write them on sticky notes. Sequence them in an order that they like. Write out a draft of the story. Some students may wish to talk about each step and/or draw an image for each of the scenes before writing. | Workbook  Sticky notes |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Why can’t emus fly?  Watch the video and answer the question in your workbook. | [Why emus can’t fly video](https://education.abc.net.au/home#!/media/155212/observing-an-emu) |
| Assessment | Students submit a photo of their draft via Seesaw.  How did students go with writing a first draft?  Did they use their notes to help? |  |
| Reflection | Why do we plan before we draft? Does our draft have to perfect? Why? Why not? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 17

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience and language  **EN2-12E** – recognises and uses an increasing range of strategies to reflect on their own and others’ learning |  |
| Learning intention | We are learning to receive and give feedback. |  |
| Success criteria | We can:   * create a checklist. * give two positives about the person’s work (stars). * give one piece of constructive feedback (wish). |  |
| Teaching component | Read ‘Mad Magpie’ by Gregg Dreise for enjoyment.  Explain that today we are going to give feedback on a peer’s draft. As it is just a draft it’s not a perfect story yet. What kinds of elements are we looking for in the draft?  Compose a list of around five elements someone could have. For example, well- developed characters, interesting setting, clear plot. Are you giving feedback on grammar, spelling and punctuation? No, not yet.  Model how to give constructive feedback (two stars and a wish) on the ideas in the draft.  For example, I like how you described in detail your hawk character. I like how the story took place inside an active volcano. Perhaps you could consider making the problem more serious as it was too easy for the characters to solve.  Why is it important to give and receive feedback? How can we be respectful to someone’s ideas? | “Mad Magpie” by Gregg Dreise |
| Student activity | Feedback – two stars and a wish  Students swap their work with someone else. Read over the draft. Give two stars and a wish for the work. |  |
| Student activity | Consider feedback  Students decide if they want to change their work based on the feedback. Rewrite their first draft to create a second draft. |  |
| Student activity | Daily observations journal  Look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity | Migratory birds  Students read the text and use a world map to plot the places the different birds are found and where they migrate to. Add the distances travelled in kilometres. | World map  [Facts about bird migration](https://www.audubon.org/news/9-awesome-facts-about-bird-migration) |
| Assessment | Did students give feedback based on the co-constructed success criteria?  Did they limit it to two stars and a wish? |  |
| Reflection | Why is it important to give and receive feedback? How can we be respectful when giving and receiving feedback? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 18

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience, and language  **EN2-3A** – uses effective handwriting and publishes texts using digital technologies  **EN2- 9B** – uses effective and accurate sentence structure, grammatical features, punctuation conventions and vocabulary relevant to the type of text when responding to and composing texts |  |
| Learning intention | We are learning to edit our work. |  |
| Success criteria | We can:   * check spelling. * check word choice. * check punctuation. * check grammar. |  |
| Teaching component | Read ‘How Frogmouth Found Her Home’ by Ambelin Kwaymullina for enjoyment.  The writing process – editing  Explain that our stories have great ideas but now we need to make sure they have the correct spelling, punctuation and grammar. Why do we need these elements to be correct?  We all read and write in English. If we use the wrong spelling or punctuation the idea might not be clear, and people won’t be able to enjoy our stories like we intended.  Show students how to read over a text out loud. Circle any words you need to look up in the dictionary to check the spelling. Add full stops, exclamation marks and question marks where necessary. Make changes to grammar. Use a thesaurus to find more interesting words. | “How Frogmouth Found Her Home” by Ambelin Kwaymullina |
| Student activity | Edit story  Students read their text out loud. Circle any words and look up in the dictionary. Add full stops, exclamation marks and question marks where necessary. Make changes to grammar. | Dictionary  Thesaurus  Draft  Pencils |
| Student activity | Type story  Students may wish to type up their story using word processing software. Use the editing functions for assistance. | Desktop, laptop or other devices  Word processing software such as Microsoft Word, PowerPoint or Publisher |
| Student activity (optional) | Peer editing  Students may wish to edit a friends’ work and give feedback based on spelling, word choice, punctuation and grammar. |  |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Did students read over their text carefully?  Did they make the necessary changes, or did they miss anything? |  |
| Reflection | Why do we need to edit our work? What happens if we leave lots of mistakes in our work? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 19

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-2A** – plans, composes and reviews a range of texts that are more demanding in terms of topic, audience, and language  **EN2-3A** – uses effective handwriting and publishes texts using digital technologies |  |
| Learning intention | We are learning to publish our work. |  |
| Success criteria | We can:   * use NSW foundation cursive. * use consistent size, slope and spacing in our writing. * use software to publish our work. |  |
| Teaching component | Read ‘The Cassowary's egg’ by Garry Flemming for enjoyment  The writing process – publishing  Why do we publish our work? To share with an audience. If our writing is messy or unclear, what will happen? They won’t be able to understand or they will misinterpret our message.  Show students a sample of what clear NSW foundation cursive looks like. If necessary, add some handwriting lessons to develop style and technique.  What elements do we need to include in our final published story? Devise a list. Could include cover, title, images, dedication and blurb. These features may change depending on the audience.  Show students how to make a digital version. Include the same features. | “The Cassowary's egg” by Garry Flemming  Sample of NSW cursive font  Word processing software such as Microsoft Word, PowerPoint or Publisher |
| Student activity | Publish written story  Students hand-make a storybook for their intended audience. Include cover, title, images, dedication and blurb. | Paper, markers, pencils |
| Student activity (optional) | Publish digital story  Students make a digital version. Include the same features cover, title, images, dedication and blurb. | Computer or tablet  Word processing software such as Microsoft Word, PowerPoint or Publisher  Online/app book creator options:   * [My storybook](https://www.mystorybook.com/) * [Book creator](https://bookcreator.com/) * [Storyjumper](https://www.storyjumper.com/) * [Bookemon](https://www.bookemon.com/) * [Further list of apps](https://www.commonsense.org/education/top-picks/best-apps-for-creating-books-and-storybooks) |
| Student activity (optional) | Illustrating stories  Watch this video about illustrator Ann James and think about the way you would like to illustrate your story. | [Ann James video](https://education.abc.net.au/home#!/media/1262992/illustration-style-with-ann-james) |
| Student activity (optional) | Make a movie  Students make a movie of their story. Can be animated or real-life action. | Moviemaker or any suitable app  Digital camera  Device with camera |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Can the student use the NSW cursive font?  Can the student use digital software to publish their story? |  |
| Reflection | Why is it important to publish texts? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 20

|  |  |  |
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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **MA2-1WM** – uses appropriate terminology to describe, and symbols to represent, mathematical ideas  **MA2- 9MG** – measures, records, compares and estimates lengths, distances and perimeters in metres, centimetres and millimetres, and measures, compares and records temperatures |  |
| Learning intention | We are learning to measure length. |  |
| Success criteria | We can:   * use millimetres as a unit to measure length. * record lengths using the abbreviation for millimetres (mm). * estimate lengths to the nearest millimetre and check by measuring. |  |
| Teaching component | Read ‘Eagle, crow and emu’ by Gladys Milroy and Jill Milroy for enjoyment.  Measuring length  What units of measurement do you know? m, cm, mm  What unit do you use to measure the distance between Sydney and Brisbane?  What unit do you use to measure your hand?  Ask students to pose some other questions.  What unit do you use to measure small items? Millimetres.  What are some items we can use millimetres to measure?  Why is it important to have small units of measurement? To be accurate.  What are some jobs that require accuracy in measuring?  Explain we are going to make a bird nesting box. Look at the instructions and demonstrate how to estimate what size of cardboard/paper you will need. We are not using a drill or wood. Instead, we will use glue or sticky tape and paper or cardboard.  Demonstrate how to measure the box sides out accurately. What happens if the sizes are not measured correctly? | “Eagle, crow and emu” by Gladys Milroy and Jill Milroy  [Bird nesting box instructions (PDF 549KB)](http://www.birdsinbackyards.net/sites/www.birdsinbackyards.net/files/page/attachments/Australian%20owl-nightjar_0.pdf)  Glue  Sticky tape  Paper  Cardboard |
| Student activity | Make a bird nesting box  Students select a template to make a nesting box for a bird in their area. Check the distribution graph on the fact sheet to see if the bird lives in their area.  Follow the plan to the closest millimetre. Keep the dimensions correct. | [Bird nesting box instructions (PDF 549KB)](http://www.birdsinbackyards.net/sites/www.birdsinbackyards.net/files/page/attachments/Australian%20owl-nightjar_0.pdf)  Ruler  Paper  Cardboard  Boxes from around the house |
| Student activity | Create a procedure  Write or record a video of a clear procedure for a younger student so they can make the nest box too. Convert millimetres to centimetres so it’s easier for them to understand. Include the materials you used, the steps involved, a diagram of the measurements in centimetres and any tips for construction. | Workbook |
| Student activity | Swift parrot nesting boxes on Bruny Island  How have nesting boxes helped swift parrots on Bruny Island in Tasmania? Watch the video and answer in your workbook. | [Swift parrot nesting boxes video](https://education.abc.net.au/home#!/media/2450999/swift-parrot-update) |
| Student activity (optional) | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Make a real nesting box  If an adult is available and you have access to the materials, make a real nesting box for a bird or another type of animal. | [Bird nesting box instructions (PDF 549KB)](http://www.birdsinbackyards.net/sites/www.birdsinbackyards.net/files/page/attachments/Australian%20owl-nightjar_0.pdf)  [Build your own Wildlife Nest Box (PDF 1.28MB)](https://www.wires.org.au/wildlife-info/wildlife-factsheets/Wildlife-Nest-Boxes-LLS.pdf)  See instructions for materials required |
| Assessment | Live bird cams  Watch some birds around the world on live cameras. | [Live bird cameras](https://birdwatchinghq.com/live-bird-cams/) |
| Reflection | Students upload a photo or video of their bird nest to Seesaw. | Seesaw app  Device/tablet |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 21

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-8B** – identifies and compares different kinds of texts when reading and viewing and shows an understanding of purpose, audience and subject matter |  |
| Learning intention | We are learning to compare texts. |  |
| Success criteria | We can:   * explain how two texts are similar or different based on audience, purpose and subject matter. |  |
| Teaching component | Read or watch a recording of the book ‘Circle’ by Jeanie Baker  Ask students who this book is for (audience)?  Why was it written (purpose)?  What is the main subject matter?  Next read the website with information about Godwits.  Repeat the questions as above.  Draw a Venn diagram. Ask students what is similar and what is different about the two texts. Add the elements into the corresponding section of the Venn diagram.  Why do we need to think about these aspects when we read or view a text?  Think about the author's intent/purpose. Are they trying to convince/entertain/inform us? Have they achieved their purpose? | “Circle” by Jeanie Baker  [Information about Godwits](http://birdlife.org.au/bird-profile/bar-tailed-godwit) |
| Student activity | Compare two texts  Using the two texts below, repeat activity above. Or select two other texts if unavailable.  Text 1 – “Kookoo Kookaburra” by Gregg Dreise  Text 2 – Kookaburra information from the National parks and Wildlife Service | “Kookoo Kookaburra” by Gregg Dreise  National parks and Wildlife Service – [Kookaburra information](https://www.nationalparks.nsw.gov.au/plants-and-animals/kookaburra) |
| Student activity | Imagine  If you were a bird and could fly anywhere, where would it be? Why? Write in your journal. Draw a picture. | Workbook  Pencils |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Collage  Read the book ‘Circle’ by Jeanie Baker. Watch the video where she describes her art.  Create a collage of what you see outside your window. | “Circle” by Jeanie Baker  [Jeannie Baker video](https://www.youtube.com/watch?v=0QwNIsMXGmE) |
| Student activity (optional) | Sculpture  Look at Australian artist Marguerite Derricourt’s sculptures of birds. Make a sculpture of a bird. Make it out of paper-mâché, wire, playdough, clay or other found materials.  Make more than one to make a flock of birds. | [Marguerite Derricourt website](http://www.margueritederricourt.com.au/gallery.html)  Optional – paper, wire, playdough, clay |
| Student activity (optional) | Hold an exhibition  Collect your bird artworks and display them in a special room in your house. Create invitations (paper or electronic) and invite your family members to your gallery to view the works. | Printer  Paper  Frames (optional)  [Website for creating online invitations](https://www.paperlesspost.com/) |
| Assessment | Students upload their work sample to Seesaw.  Can students identify and explain how texts can be similar and different? |  |
| Reflection | What do we need to consider when we read or view a text? Why? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 22

|  |  |  |
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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **GE2-2** – describes the ways, people, places and environments interact |  |
| Learning intention | We are learning about some of the large-scale activities that are impacting on plants and animals. |  |
| Success criteria | We can:   * explain what biodiversity is and why it is important. * describe how human actions are impacting on biodiversity. * offer solutions on how we help increase biodiversity. |  |
| Teaching component | Read ‘Don’t let the pigeon drive the bus!’ by Mo Willems for enjoyment.  What activities are having the biggest impact on animals?  Possible answers include bushfires, global warming/climate change, logging/deforestation.  Read the WWF information and see if they predicted correctly.  Which of these activities do you think have an impact on birds? How?  How can we help animals and birds? Read the Animals Australia article to find out and discuss.  Why do we have to act to help animals? | “Don’t let the pigeon drive the bus!” by Mo Willems  [WWF Environmental problems in Australia article](https://wwf.panda.org/wwf_offices/australia/environmental_problems_in_australia/)  [Animals Australia article](https://www.animalsaustralia.org/features/help-animals-wildlife-carers-vets-australia-bushfires.php) |
| Student activity | Biodiversity  Watch the video and answer the questions below in your workbook:   * What is biodiversity? * Why is increased biodiversity good? * Why do we need trees? * Why do we need pollinators? * What had happened in the last 50 years? | [WWF biodiversity video](https://www.youtube.com/watch?v=b6Ua_zWDH6U) |
| Student activity | Helping wildlife  Read these articles and select at least three ways you can help act.  Describe how you can make changes in your household. | [Green kids guide to threatened species](http://www.environment.gov.au/biodiversity/threatened/publications/factsheet-green-kids-guide-threatened-species-9-ways)  [Ideas for teaching sustainable living](https://education.abc.net.au/newsandarticles/blog/-/b/2985599/10-ideas-for-teaching-kids-about-sustainable-living-) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear, and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity | Sketch a whistling kite  Look at the images on the website of whistling kites. Sketch one of the birds from the angle of your choice. | [Whistling kite images](https://blog.csiro.au/its-a-bird-its-a-plane-its-citizen-science/) |
| Student activity (optional) | Rescuing tawny frogmouths  Watch the video and describe how people are rescuing tawny frogmouths. | [Tawny frogmouth video](https://education.abc.net.au/home#!/media/2438757/rescuing-tawny-frogmouths) |
| Student activity (optional) | Biodiversity  Explore this site, play games and learn more about biodiversity. | [Why is biodiversity so important video](https://www.youtube.com/watch?v=GK_vRtHJZu4) |
| Student activity (extension) | Biodiversity  Watch the video and write the keywords. Lookup any new words in the dictionary.  Summarise the information in the video. | [Why is biodiversity so important video](https://www.youtube.com/watch?v=GK_vRtHJZu4) |
| Student activity (optional) | Backyard biodiversity  Watch the video and explain how Josh built his back garden to increase biodiversity. | [Backyard biodiversity video](https://www.abc.net.au/gardening/factsheets/backyard-biodiversity/11260610) |
| Assessment | Ask students to explain their answers to the key questions.  Do they require more support on this topic? |  |
| Reflection | What is biodiversity is and why it is important? How are human actions impacting on biodiversity?  How can we help increase biodiversity? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 23

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to solve problems. |  |
| Success criteria | We can:   * explain the five steps in the design thinking process. | [Stanford d.school design thinking resources](https://dschool.stanford.edu/resources)  [Stanford’s design process for kids](http://www.ideaco.org/2013/07/standfords-design-process-for-kids-teaching-big-picture-problem-solving/) |
| Teaching component | Read ‘The pigeon finds a hot dog’ by Mo Willems for enjoyment.  The design thinking process  Explain the design thinking process. The design thinking process helps us to identify a problem worth solving and a solution which can help.  Show the image of the Stanford design school’s design thinking process hexagons on the Medium website. Predict what each step may involve. Go through each step and explain them. What types of projects do you think it has been used on?   1. Empathise – get to know your user. 2. Define – define what the project will be about. 3. Ideate – brainstorm lots of ideas about how to solve the problem. 4. Prototype – build a small-scale model/concept of the idea. 5. Test the idea.   Look at examples of companies who used design thinking and what they created. | ‘The pigeon finds a hot dog” by Mo Willems  [The design thinking process](https://medium.com/stanford-d-school/lets-stop-talking-about-the-design-process-7446e52c13e8)  [Examples of companies who use design thinking](https://voltagecontrol.com/blog/8-great-design-thinking-examples/) |
| Student activity | Symbols to represent the steps  Look at the keywords and steps in the design thinking process. Make up a symbol or drawing to help you remember what each one means. | Workbook |
| Student activity (optional) | What is design thinking and how do we apply it?  Watch the video and write some notes about the key elements of design thinking. | [What is design thinking and how do we apply it?](https://www.invisionapp.com/inside-design/what-is-design-thinking/) |
| Student activity (optional) | Origami crane  Make an origami crane. Make lots of origami cranes out of a range of paper to create a flock. | [Origami cranes instructions](https://www.savingcranes.org/education/origami-cranes/)  [How to make a paper crane](https://www.instructables.com/id/How-to-make-a-Paper-Crane-1/)  Paper |
| Assessment | Did the student understand the process?  What element are clear/unclear? |  |
| Reflection | Why do you think the design thinking process is a good way to solve a problem? Why? Why not? Where else do you think design thinking has been used? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 24

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solution |  |
| Learning intention | We are learning to empathise. |  |
| Success criteria | We can:   * ask questions to better understand others’ need and wants. * listen carefully to the speaker. |  |
| Teaching component | Read ‘The pigeon wants a puppy!’ by Mo Willems for enjoyment.  The design thinking process – empathise  Who are we trying to help? What do they need?  This may be different depending on location. Is there a bird in your local area who needs help? Or select a bird from another area which needs help.  When we empathise, we try to find out how others feel about a situation. We can do this by asking questions and being a careful listener. Careful is when we pay attention using our whole body; we do not interrupt, and we do not offer our ideas or solutions. We take notes about what the speaker said.  Look over the websites and point out the key elements of how to empathise effectively in design thinking.  If you conduct a successful empathy interview, what do you think it will involve?  Eye contact, careful listening, minimal, if any, interruptions.  What questions should we ask? Co-construct some questions.  What problems are birds facing?  Have you seen injured birds? Where? | “The pigeon wants a puppy!” by Mo Willems  [How to develop an empathetic approach in design thinking](https://www.interaction-design.org/literature/article/how-to-develop-an-empathic-approach-in-design-thinking)  [Empathy in design thinking](https://www.interaction-design.org/literature/article/stage-1-in-the-design-thinking-process-empathise-with-your-users) |
| Student activity | Conduct empathy interviews with your family  Arrange an empathy interview with a trusted adult.  Devise a set of questions to ask them about the needs of birds in your area.  Ask as many people as you can. The notes will be used to help in the next activity. | Workbook  Pencil |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | Why aren’t birds pulled down by gravity when they are flying?  Read the article and write the answer in your workbook.  How have humans tried to replicate this throughout history? Clue – Da Vinci or the Wright brothers. | [Why aren’t birds pulled down by gravity while they’re flying?](https://education.abc.net.au/newsandarticles/blog/-/b/2813122/curious-kids-why-arent-birds-pulled-down-by-gravity-while-theyre-flying) |
| Student activity (optional) | Migratory birds  Watch this video and write the keywords that relate to the text. | [Migratory birds video](https://education.abc.net.au/home#!/media/153320/migratory-birds) |
| Assessment | Did students understand the concept of an empathy interview?  Was the data they collected useful to progress to the next step of the process? |  |
| Reflection | How did it feel when you were listening carefully? What were you thinking about? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 25

|  |  |  |
| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to define the problem. |  |
| Success criteria | We can:   * use empathy interviews to understand the problem. * decide which problem we want to solve. |  |
| Teaching component | Read ‘Animalia’ by Graeme Base for enjoyment.  The design thinking process – define  The define stage of the design thinking process is an opportunity to decide which problem we would like to solve. Share the problems that birds encounter. As a class, develop a list of problems that they could solve.  Demonstrate how you can select one and frame it as a ‘how might we’ statement.  For example, how might we stop kookaburras from flying into glass windows?  How might we help rainbow lorikeets access drinking water? | “Animalia” by Graeme Base |
| Student activity | List the problems  Students look at the notes they took for the empathy interviews and make a list of all the problems that birds might encounter. They then select one problem that they would like to solve. |  |
| Student activity | How might we statement  Use the ‘how might we…’ format to define the problem  For example – how might we help rainbow lorikeets access drinking water? |  |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Student activity (optional) | The Sydney Bird Painter – 'The white gallinule' c. 1791-92  What happened to the white gallinules? Watch the video to find out. | [The Sydney Bird Painter video](https://education.abc.net.au/home#!/media/1979039/the-sydney-bird-painter-the-white-gallinule-c-1791-92) |
| Assessment | Were students able to narrow down their problems to one?  Is it worth solving?  Were they able to form the ‘how might we…’ statements? |  |
| Reflection | Were there many problems for birds? How difficult do you think it will be to solve the problem you have chosen? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 26

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to ideate. |  |
| Success criteria | We can:   * use brainstorming techniques. * list as many solutions as possible. * decide which solution to use. |  |
| Teaching component | Read ‘The Albatross’ By Bruce Pickworth and Lorraine Robertson for enjoyment.  The design thinking process – ideate  At this step, students are encouraged to list as many interesting solutions as possible to their problem. You can call this task ‘the bad idea factory’ – no idea is silly or wrong.  Watch the video about brainstorming. Note the following aspects:   * There is a leader * It is a small group * Everyone is standing * Everyone gets to share their ideas and comments are encouraged * Individuals are given quiet time to list a few ideas first * There are no silly ideas, the more the better!   Teacher selects an idea and the class works together to think of ideas.  Look at the ideas and group them into clusters based on a similar theme. Decide on a solution (could be a combination of different ideas). | "The Albatross" By Bruce Pickworth and Lorraine Robertson  [Ideation video](https://www.youtube.com/watch?v=VvdJzeO9yN8&feature=youtu.be)  Sticky notes  Markers |
| Student activity | Ideation session  Students follow the ideation process with family or friends to solve their problem. Brainstorming as many ideas as possible to solve the problem. Decide which solution you would like to try to solve. |  |
| Student activity | Penguin jumpers  Read this text about little penguin jumpers. Which problem are the jumpers solving? | [Penguin jumpers article](https://www.abc.net.au/btn/newsbreak/penguin-jumpers/11405548) |
| Student activity (optional) | Emu families  Watch this video and write a summary of what you learnt. | [Emu families video](https://education.abc.net.au/home#!/media/2528433/emu-families) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Did students collaborate in the brainstorming process?  Did they come up with a viable solution for their problem? |  |
| Reflection | Describe how you felt during the ideation process. Did you come up with a solution? If yes, how? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 27

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to create a prototype of our solution. |  |
| Success criteria | We can:   * explain what a prototype is. * create a prototype of our solution. |  |
| Teaching component | The design thinking process – prototype  This next step in the design thinking process provides the opportunity for the student to determine the complexity of the solution. Watch the video on prototyping.  What is a prototype? View the link for the following definition and more information.  A prototype is an early sample, model or release of a product created to test a concept or process.  For example, if the solution is to make special stickers to put on glass windows so birds can see them, the student can make the building with the sticker on the windows to demonstrate how the solution will work.  Share ideas about how the students will make their prototype.  Students will need to begin by drawing a design for their prototype and think about the different components and the way that it might be built. | [Prototype video](https://www.youtube.com/watch?v=k_9Q-KDSb9o&feature=youtu.be&list=TLPQMjcwMzIwMjAY_rFnJQ06pg)  [Prototype definition](https://medium.com/nyc-design/what-is-a-prototype-924ff9400cfd)  [Extra information on prototyping](https://www.interaction-design.org/literature/article/stage-4-in-the-design-thinking-process-prototype) |
| Student activity | Draw the design plan of the prototype  Students draw the design for their prototype. Annotate with key information and features.  List materials they will need to make the prototype. | Paper  Pencil  Or digital design tools |
| Student activity | Make the prototype  Students gather the materials to build the prototype. They use the design plan to build the three-dimensional model of their solution. | Cardboard  Paper  Sticky tape  Glue  Scissors  Markers  Pipe cleaners  Paddle pop sticks  Boxes  Plasticine  Clay  Foil  Cling wrap  Rubber bands |
| Student activity (optional) | John Lewin Reed Warbler  Watch this video and write the keywords you hear. | [John Lewin Reed Warbler video](https://education.abc.net.au/home#!/media/2007200/john-lewin-reed-warbler-1805) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Students upload work samples to Seesaw.  Is the prototype based on their design? |  |
| Reflection | Why is a prototype useful? Did you learn anything interesting as you built your prototype? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 28

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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to test and validate. |  |
| Success criteria | We can:   * share our prototype with others. * test our prototypes. * listen to feedback about our prototypes. * refine it with any improvements. |  |
| Teaching component | Read ‘Mr Chicken goes to Paris’ by Leigh Hobbs for enjoyment.  The design thinking process – test and seek feedback  Watch the video about the value of a feedback-capture grid.  Create a class feedback-capture grid for testing their prototypes.  Demonstrate how to clearly explain the problem, and the solution as well as describe the features of the prototype. Show students how you can use the feedback capture grid to receive feedback on the prototype.  Discuss protocols around giving and receiving feedback respectfully.  Why do we want feedback on our prototypes? To make them better! | “Mr Chicken goes to Paris” by Leigh Hobbs  [Feedback capture grid video](https://www.youtube.com/watch?v=5XC4JqXUJbw&feature=youtu.be) |
| Student activity | Share the prototype with others  Students find a family member or peer to get feedback from. They are to clearly explain the problem, solution and the features of their prototype. Students actively listen to the feedback and ask clarifying questions. |  |
| Student activity | How do penguins keep warm in Antarctica?  Read the article and answer the questions in your workbook. | [Penguins in Antarctica article](https://education.abc.net.au/newsandarticles/blog/-/b/3230156/curious-kids-how-do-penguins-stay-warm-in-antarctica) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Did the students give and receive constructive feedback respectfully? Do their prototypes help solve the problem? |  |
| Reflection | Why is feedback important? What new ideas or challenges did you discover in the feedback session? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 29

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| --- | --- | --- |
| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **ST2-2DP-T** – selects and uses materials, tools and equipment to develop solutions for a need or opportunity  **ST2-3DP-T** – defines problems, describes and follows algorithms to develop solutions |  |
| Learning intention | We are learning to refine and reflect. |  |
| Success criteria | We can:   * use feedback from others to improve our prototype. * use a growth mindset. * use reflective processes to determine the quality of the prototype. |  |
| Teaching component | Reread some of the classes’ favourite books from this term for enjoyment. Which ones did they like? Why?  Reflection on the feedback process  Think about the solution you decided to pursue and the prototype you built.  Was any of the feedback helpful for improving your prototype? Do we have to take on every piece of feedback we receive?  Are there any challenges you didn’t consider? How will you solve these challenges?  What do you feel about your prototype? How will you improve it?  Explain that students will have time to refine their prototype and then ‘pitch it’.  An elevator pitch is a short (one minute) presentation trying to convince someone (usually) to invest in your product or concept. Demonstrate how to write and deliver an elevator pitch. | [Elevator pitch information](https://slidebean.com/blog/startups-elevator-pitch-examples) |
| Student activity | Refine the prototype  Students make final adjustments to their prototype based on the feedback they received.  Take a photo or video of the prototype to submit to the teacher. | Seesaw |
| Student activity | Elevator pitch  Students make a one-minute presentation saying why their prototype should be adopted by their community. Students can use Google Slides or Microsoft PowerPoint if they like. | Digital camera  Device with camera  Paper  Microsoft PowerPoint  Google Slides |
| Student activity (optional) | Working hard to save a rare cockatoo  Watch the video and explain what was done to help these rare birds. | [Rare cockatoo video](https://education.abc.net.au/home#!/media/525423/working-hard-to-save-a-rare-cockatoo) |
| Student activity (optional) | Diversity of birds in Australia  Read the article and write down any interesting facts. | [Diversity of birds in Australia article](https://www.theguardian.com/environment/2017/dec/01/birds-australia-world-greatest-diversity) |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Students submit a photo or video of their final prototype along with the presentation.  Submit a video of their elevator pitch or perform it live to the teacher and class. | Seesaw |
| Reflection | Did you make any changes to your prototype based on feedback? Why are elevator pitches useful? |  |

Class-specific adjustments and extensions

Teacher reflection and annotation

## Lesson sequence 30

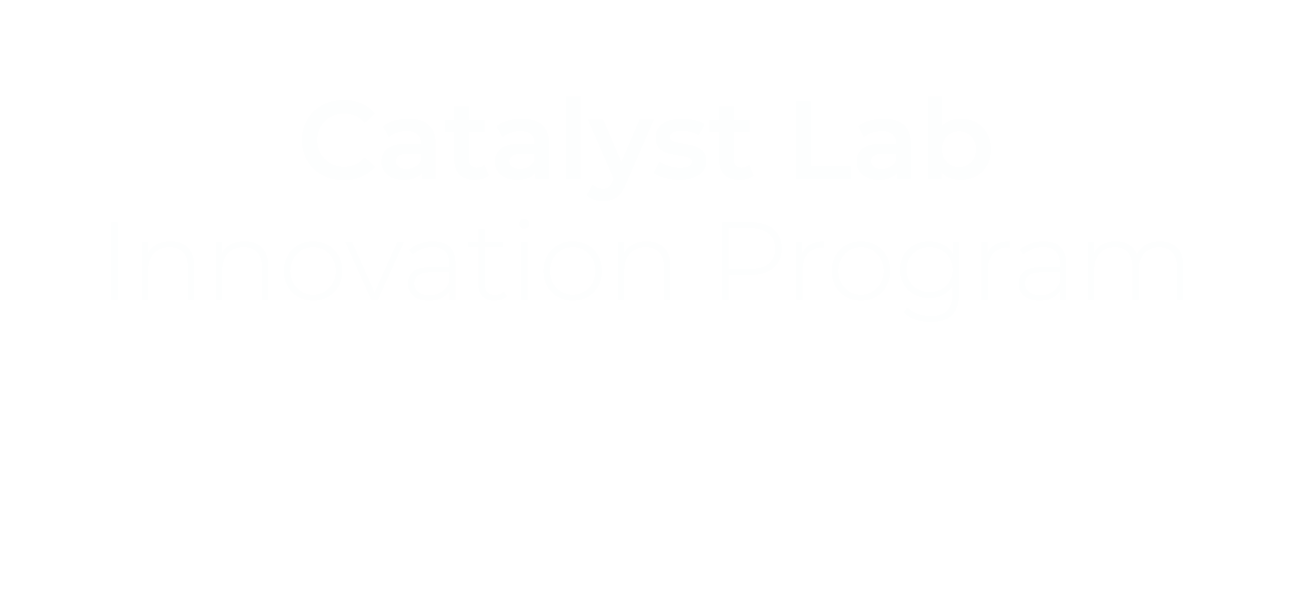
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| Lesson sequence | Teaching and learning | Resources |
| Syllabus outcomes | **EN2-12E** – recognises and uses an increasing range of strategies to reflect on their own and others’ learning |  |
| Learning intention | We are leaning to reflect on our learning. |  |
| Success criteria | We can:   * describe what we learnt. * identify how we learn best. * describe what we would do differently next time. * identify what we want to learn more about and explain why. |  |
| Teaching component | Reread some of the classes’ favourite books from this term for enjoyment. Which ones did they like? Why?  Reflecting on learning  Refer to the KWL chart from lesson 1.  Ask students to recall what they liked the best, remembered the most or found the most interesting from this term’s program:   * Was it content? Skills? Experiences? * Why did they like it? Why did they remember it? * What would they do differently? * What would they like to learn more about? Why? * What feedback on the lessons do they have for the teacher? Is there anything we can improve for the future?   Create a Google Form for the student to fill out with specific questions for your class. | Completed KWL chart from lesson 1 |
| Student activity | Inquiry question reflection  How can we protect native birds in our local area?  Students can answer this in any format they like.  For example Google Slides or a PowerPoint presentation, a video, a speech, a written report, an artwork. | Google Slides or Microsoft PowerPoint  Digital camera  Art supplies |
| Student activity | Program survey  Students complete the reflection survey either digitally or on paper. |  |
| Student activity | Daily observations journal  Students look out the window or sit in the backyard and use their five senses to record the world around them. What can they see, smell, feel, hear and taste (when they stick their tongue out in the air)? Students write or draw their findings in their journals. | Daily journal  Pencil |
| Assessment | Students submit their inquiry question reflections vis Seesaw. | Seesaw |
| Reflection | Why do we need to reflect on what we’ve learnt? |  |

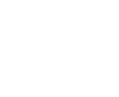
Class-specific adjustments and extensions

Teacher reflection and annotation

Program evaluation





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