AUSSIE BACKYARD BIRD COUNT

PRIMARY SCHOOL LESSON PLANS

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Published by: BirdLife Australia

BirdLife Australia is the Australian partner of BirdLife International.

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About the Aussie Backyard Bird Count

The Aussie Backyard Bird Count (ABBC) is an annual event, held for one week every October. It aims to engage school communities in the natural world while getting to know the birds in their local schoolyard through participation in a simple, fun, all-ages activity that can be done anywhere.

It also gives BirdLife Australia and the Birds in Backyards (BIBY) teams a chance to use their expertise and contribute to the education of local school communities on birds and creating bird-friendly spaces in gardens.

By taking part in the Aussie Backyard Bird Count the students will become citizen scientists. Citizen science creates opportunities for students to connect with the natural world, gain scientific skills, and learn about topics such as life cycles, habitats, adaptations and interrelationships. This can be a gateway to many exciting discoveries and creates a partnership between the students and professional scientists to help answer questions scientists couldn't answer on their own.

About this resource

Intended audience This resource is intended for teachers of students in Years 5 and 6 working towards Stage 3 outcomes in the Australian Curriculum. However, they may be adapted for younger students as well.

The resource The lesson plans for the Aussie Backyard Bird Count are an inquiry-based curriculum resource that encourages students to engage in the scientific process through monitoring birds. The teaching and learning is based on the students' role as citizen scientists investigating the bird community and habitat of their school grounds. They collect, analyse and interpret their data.

The resource comprises two lessons. Each lesson is designed to take between one and two hours to complete. These can and should be modified to suit the local needs of students. The activities are suggestions only and other activities can be used to replace them. Similarly, each lesson does not need to be taught in a single block but can be broken up into smaller sessions if necessary.

Acknowledgements

BirdLife Australia would like to sincerely thank and acknowledge the contribution of many people involved in the production of this resource. It was written by Dr Holly Parsons, Stacey Maden and Elizabeth Noble.

We are also very grateful for the availability of bird photos from Glenn Ehmke, Aimee Freimanis, Ashley Herrod, Geoff Hutchinson, Dean Ingwersen, Jon Irvine, Andrew Silcocks, Mark McGeachie and Chris Tzaros. Graphic design by Holly Parsons. Cover design by Anna Wilson.

Thanks also to the editors and supporters involved in the project, Renee Ferster Levy, Gay Gallagher and Val Catchpoole.

The resource builds on the work from BirdLife Australia's Birds in Schools project (birdlife.org.au/education-publications/education/birds-in-schools).

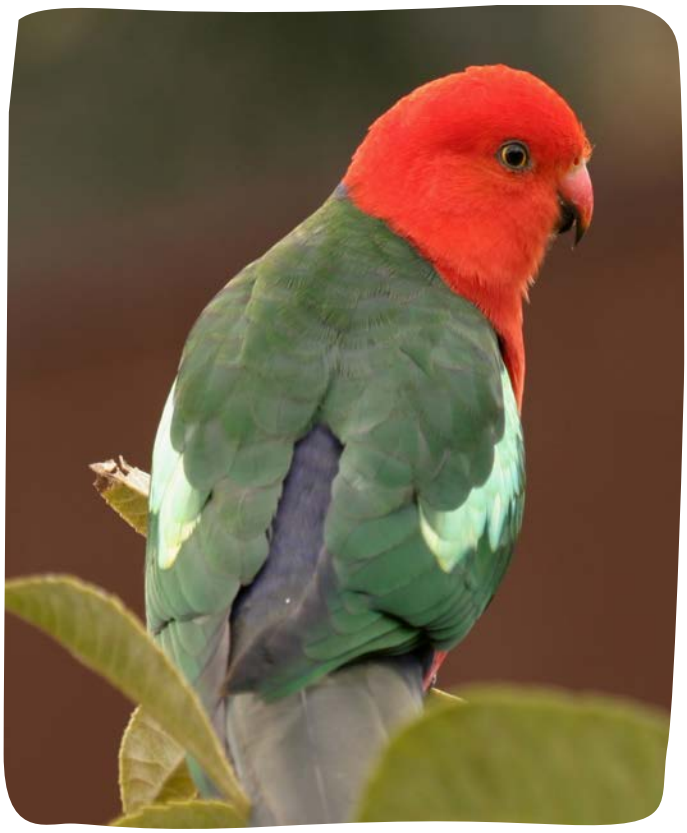
Australian Curriculum Science Links

Strand	Sub-strand	Code	Content descriptions	Activities
Science understanding	Biological sciences	ACSSU043	Living things have structural features and adaptations that help them to survive in their environment	1.2, 1.4 2.2
		ACSSU094	The growth and survival of living things are affected by the physical conditions of their environment	1.3, 1.4
Science as a human endeavour	Nature and development of science	ACSHE081 ACSHE098	Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena	1.1 2.1, 2.5
Science inquiry skills	Questioning and predicting	ACSIS231 ACSIS232	With guidance, pose questions to clarify practical problems or inform a scientific investigation, and predict what the findings of an investigation might be	2.1, 2.5

Australian Curriculum English - Maths Links

Strand	Sub-strand	Code	Content descriptions	Activities
English Literacy	Interacting with others	ACELY1700	Plan, rehearse and deliver presentations for defined audiences and purposes incorporating accurate and sequenced content and multimodal elements	1.4
		ACELY1709	Participate in and contribute to discussions, clarifying and interrogating ideas, developing and supporting arguments, sharing and evaluating information, experiences and opinions	1.2, 1.3, 1.4 2.1, 2.4
	Interpreting, analysing, evaluating	ACELY1703	Use comprehension strategies to analyse information, integrating and linking ideas from a variety of print and digital sources	2.2, 2.3
	Creating texts	ACELY1704 ACELY1714	Plan, draft and publish imaginative, informative and persuasive print and multimodal texts, choosing text structures, language features, images and sound appropriate to purpose and audience	1.4
Mathematics Statistics and probability	Data representation and interpretation	ACMSP118	Pose questions and collect categorical or numerical data by observation or survey	2.5

Lesson 1
Our Aussie Birds



Australian King-Parrot

Aim:

To introduce students to some of the birds in their school grounds and develop an understanding of the concept of a habitat

Learning Objectives:

Students will be able to:

- List 5 birds that are native to Australia including 3 that are found on their school grounds or surrounding area
- Define a habitat
- Understand the 4 basic needs of animals and identify three features in an urban habitat that people need for survival

Getting Started:

Visit the Aussie Backyard Bird Count website: aussiebirdcount.org.au to read up on the event and use iTunes or GooglePlay to download the ABBC app on the devices that students will use to complete the ABBC (full version of the app available on 1 October).

Visit Birds in Backyards Bird Finder: birdsinbackyards.net/finder to find bird fact sheets, pictures and sounds that can be used in these activities.

Visit the BIBY YouTube channel: youtube.com/user/birdsinbackyards to watch videos of birds and how people can help birds. Some useful videos may include: Be Their Friend, The Powerful Owl Profile and Birds in Backyards: Helping Aussie Birds.

Visit the BirdLife Australia YouTube channel: youtube.com/c/BirdLifeAustralia1 to watch the 'How to' video for the ABBC app.

Concepts

Biodiversity is the variety of all life forms on earth – the different plants, animals and micro-organisms and the ecosystems of which they are a part.

BIODIVERSITY

There are several definitions of biodiversity. The most comprehensive definitions encompass genes, species and ecosystems: the three levels of biological organisation that together create the complexity of life on earth. Biodiversity is protected by law in Australia.

Australia has high biodiversity with more than twice the number of species that occur in Europe and North America. We have a responsibility to protect that biodiversity and to ensure that the total biodiversity of the earth is not diminished. Every species that is lost is a permanent loss to the earth's biodiversity. People need the resources biodiversity provides for food, medicine, clothing and shelter. Biodiversity is vital for current and future human well-being.

Although the adage 'more is better' applies to the earth's biodiversity, any particular region may have naturally high or low biodiversity. Places like rainforests and reefs have high biodiversity whereas a salt-flat or certain deserts have low biodiversity. Thus, within a particular region, low biodiversity may not be a sign that something is wrong.

BIRDS

There are approximately 867 Australian bird species. The numbers are flexible due to species that migrate and the division or combination of some species. Of these, 46% are endemic – that is, they are found nowhere else in the world.

Birds are everywhere and they are relatively easily seen and identified. Most people enjoy them for their beauty, their liveliness or their song.

Ecosystems are usually so complex that no single component can speak for all the others. Nevertheless, studying birds can give an indication of whether the system is healthy, and provide an understanding of ecosystems and their needs.

Birds have also been used as indicators of grassland, wetland, meadow, rainforest and desert health, of environmental hazards and of changes in other types of biodiversity. Changes in living birds, both individuals and populations, may provide evidence of climate change and fossil birds have been used to indicate what past climates were like.

'Birds are indicators of the environment. If they are in trouble, we know we'll soon be in trouble.'

Roger Tory Peterson

Superb Fairy-wren

In 2000, 20% of Australian bird species were threatened with extinction. The threats are primarily the loss and fragmentation of suitable places for birds to live (habitat) and factors such as pollution and the use of insecticides. These declines in birds are likely to get worse with human population growth and climate change.

Bird communities are not static. In the last 40 years many small birds, such as the Superb Fairy-wren have declined while larger, more aggressive native and introduced species such as the Pied Currawong and Common Myna have increased. People everywhere are losing the experience of having a diversity of birds living near them. Scientists have documented this change and are now researching birds in urban habitats.

URBAN HABITATS

A habitat is a place where plants and animals live. Urban habitats are locations where people live in close proximity to each other.

The urban landscape is very important for people, but it also provides habitat for plants and animals and lots of opportunities for birds.

Urban areas provide new food sources (human food, rubbish), shelter, water sources and new nest sites (buildings). However, they are also challenging, with people, cars, and new predators and vegetation structures.

Different birds adapt differently to urban habitats. Some do very well, some can cope and some simply do not occur in urban habitats. The characteristics of the individual bird species based on the four tenants of survival – what they eat, where they live, where they get water and where/how they nest – determine a bird's success in the urban landscape.

Introduced birds like Common Mynas and House Sparrows have a long history of human cohabitation, and some native species like Rainbow Lorikeets and Noisy Miners are now more common in urban habitats than in their natural ones.

Lesson 1 Outline

TIME	ACTIVITIES	RESOURCES
0–5 mins	1. SETTING THE SCENE Introduce students to the Aussie Backyard Bird Count and briefly describe what they are going to do during Bird Week	Binoculars, field guide, Birds in Backyards (BIBY) website, ABBC website, ABBC app
5-20 mins	2. AUSSIE BIRDS Lead a class discussion about Australian birds. Ask students to name as many birds as they can as a group	Images of birds, bird calls. BIBY YouTube channel
20-45 mins	3. GET OUT & ABOUT Prepare to take students outside and introduce them to the study site	Field guide, ABBC app, notebook, pencil
45-120 mins	4. WHAT'S A HABITAT? Introduce the concept of habitat by relating it to the students' own homes and build up an image of an urban habitat	Sheet of paper for each student, board or large piece of cardboard, blutack

Since 2008, more people live in cities worldwide than in regional centres. In Australia, 85% of us live in urban areas within 50 km of the coastline.

Activities

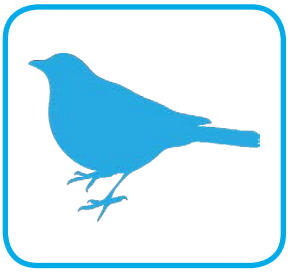
1 SETTING THE SCENE

Introduce the Aussie Backyard Bird Count and explain what the students will be doing over these 2 lessons and throughout Bird Week.

- The students are going to become citizen scientists - investigating their school grounds and surrounding environments.
- They will develop keen birdwatching skills and monitor the birds that visit their school - so they are also ornithologists.
- The ABBC provides an important snapshot of Australia's birds at the same time each year.
- Check out the results from the last year's ABBC at aussiebirdcount.org.au
- The ABBC is a BirdLife Australia event that takes place during National Bird Week. The celebration of National Bird Week has its origins back in the early 1900s when 28 October was first designated by our predecessor, the Royal Australasian Ornithologists Union, as the first 'Bird Day'. BirdLife Australia organises and promotes Bird Week with the goal of inspiring Australians to take action and get involved in bird conservation efforts.

Make available some of the tools students will use during the module, such as the ABBC website and app, the Birds in Backyards website, binoculars and field guide to generate interest.

2 AUSSIE BIRDS



Lead a class discussion about Australian birds and confirm how familiar the students are with the birds around them

- Ask the students to name as many Australian birds as they can and make a list.
- Use images (and calls) of different birds and showcase some of the common birds students might encounter at school. As you show each species, ask:

1. Have you ever seen this bird before?

2. Where did you see it? Encourage students to narrow down their answers from a location like a park, to high in a tree, on the grass etc.

3. Do you know what its name is?

4. Do you know what sound it makes? What does it sound like? Ask students to try to mimic the sounds of the birds.

3 GET OUT AND ABOUT

Prepare to take students outside and introduce them to the 'count site'

Go for a walk outside and explain that the school grounds and selected area/s within that will form the 'count site/s' for the ABBC (the areas they will be counting birds in). You can select more than one location.

Encourage the students to notice features of the site/s. Ask them to:

1. Identify man-made and natural elements within the site/s (concrete, stands of trees, a creek etc.)

2. Identify any birds students see. Use various tools such as the ABBC app

3. Identify the different sounds they hear

If time permits, select two spots – one 'man- made' and one more natural. Have them sit in a circle and close their eyes. Listen for the noises they hear in each space and what else they notice (smell, feel). Ask them what differences they noticed between the two areas.

4 WHAT'S A HABITAT?

Introduce the concept of a habitat by focusing on human settlement and the diversity of urban habitats

- Begin by building background information about habitats.
- Ask the students: What is a habitat? What things make up a habitat? (water, air, trees, rain, snow and sand). Make a list of all ideas and words students mention.
- Aim to develop a definition of a habitat, such as: “The physical location where a plant or animal naturally or normally lives and grows.”
- Explain that Earth has many habitats and that each type of habitat is unique. Ask them to provide examples of habitats, such as oceans, forests, deserts, rivers, lakes and wetlands.
- Even under water, there can be habitats such as shallow-water or deep-water zones. A combination of many things, including temperature, soil, available food, rainfall and geographic location create a habitat.

INTERESTING FACT!

Laughing Kookaburras usually nest in a naturally occurring tree hollow. Both sexes share the incubation duties and both care for the young. Other Laughing Kookaburras, usually offspring of the previous one to two years, act as 'helpers' during the breeding season. Every bird in the group shares all parenting duties. They are native to most states except WA, Tasmania and NT, but there are populations that were introduced to Tasmania and south-western WA.

Brainstorm basic survival needs:

Ask the students to think of four basic survival needs that all animals require from their habitat. Prompt students to think about things that are essential for survival. Elicit from students that four basic survival needs include:

1. Food
2. Shelter from weather and predators
3. Water
4. A place to raise young (space/place to nest)

Highlight that habitats can be man-made:

- Now that students know that a habitat is a place that meets the needs of plants and animals, compare it to where they live and what they need to survive (food, shelter, water, a place to raise young). Note that people and animals both need these things – we are not so different!
- Ask the students to close their eyes and imagine their own home. Prompt them with questions like: What colour is the door? How many rooms does it have?
- Ask the students to draw the front of their house on a small piece of paper. Then, take each of these pieces of paper and put them on a large board or piece of cardboard. Encourage them to think about what else is found in an urban habitat (e.g. roads, a school, parks, shops) and fill this in on the board.

Using the board, highlight that:

1. The habitat provides safe places to shelter and live.
2. People move within the urban habitat and between habitats to find food, play and work.
3. People in urban areas need their habitat and each other to survive. This is similar to what happens between animals, plants and their habitat in natural areas and even animals and plants in urban habitats.

Laughing Kookaburra

Animal: Australian Magpie			
Habitat: Forest or Park/Garden			
This animal's basic survival needs include:			
Food	**Shelter from weather and predators**	**Water**	**A place to raise young**
Insectivorous/ Carnivorous (eats meat). Eats insects, worms, snails, millipedes (and other invertebrates), small lizards, frogs, mice	Needs tall trees and places to perch	Provided by diet and from freshwater sources	Uses trees to build nest in

Use Think Aloud to provide students with examples of survival needs. Read the categories in the Think Aloud below and ask students to contribute.

Break the students up into pairs (or groups of up to 4). Assign each team an Australian bird (perhaps pick birds from your area or select from the list compiled in Activity 1). Have them produce a Think Aloud like the above and draw an image of their bird. Use the ABBC App Field Guide, BIBY website or other resources (like field guides or reference books) to find out information about their bird. If you have time, the students could present their findings to the class.

Note: this activity could be completed as a homework assignment or researched over a number of days.

Lesson 2
Birdwatching and the ABBC

Learning Objectives:

Students will be able to:

- Use the ABBC app and/or website to complete and submit a bird count during Bird Week
- Use a field guide, or the built in ABBC App Field Guide to identify birds
- Explain why setting up a monitoring protocol is important for

Aim:

To build birdwatching and bird identification skills and teach students about the importance of monitoring birds. And, to contribute to this important citizen science project.

Getting Started:

Familiarise yourself with the Aussie Backyard Bird Count app and website. Do a test count using the app and also practise finding some birds using the Field Guide.

You might like to divide your class up into small birdwatching teams and get them to name their team after their favourite bird.

- How to use binoculars: youtube.com/watch?v=udyJnwXMZjo
- Birdwatching tips: youtube.com/watch?v=AIeI3skoTEs
- birdlife.org.au/images/uploads/education_sheets/INFO-birding-tips.pdf

Concepts

The longest running bird survey started on Christmas Day in 1900 in the United States.

The Audubon Society proposed the 'Christmas Bird Count' as a way to count birds during the holidays rather than hunt them.

BIRD MONITORING

Because a bird's daily routine may see it moving across a large area, the presence or absence of birds, as well as their behaviour, can provide information not only about the local habitat, but also about issues that are occurring far away. An observation of birds at your school can have a wide-reaching message about current ecological and meteorological issues which students can engage with.

Bird monitoring programs follow established protocols that ensure data is collected in a consistent manner, day to day and even year to year, which is essential for the production of data for scientific analysis.

For the ABBC we are asking everyone to conduct their survey during the same week and for a set period (20 mins). This ensures consistency right across the country.

SURVEY METHODS

When designing a survey it is crucial that the boundaries of the study area are clearly established. The timing of surveys is often critical to the likelihood of observing birds. Most diurnal (active during the day) birds are more vocal and active in the morning, with calling often starting before sunrise. Weather conditions such as wind, rain and extreme temperature can also affect bird behaviour and it is recommended that surveyors avoid these weather conditions. It is essential that surveys record information on the methods used and the level of search effort adopted, such as the time taken and area covered.

It is also important to conduct multiple surveys over time to ensure the data collected is accurate and reliable. This is also critical for comparing information over time. To ensure the reliability of any comparisons, each survey should be conducted in exactly the same way.

CITIZEN SCIENCE DATA

Citizen science is scientific research conducted, in whole or in part, by amateur or non-professional scientists. It may be an individual endeavour, done in local networks or even have a national or international reach. Citizen scientists often partner with professional scientists to achieve common goals. Large volunteer networks often allow scientists to accomplish tasks that would be too expensive or time consuming to accomplish through other means.

Citizen scientists contribute enormously to our understanding of Australia's birdlife. Participants gather data at a scale far greater than any ordinary scientific research team. Data submitted to the ABBC helps us to understand the state of our birdlife and how this changes over time. This rich resource of amateur researchers is helping to extend our knowledge of Australian birds – including the discovery of new species and the protection of endangered ones.

DID YOU KNOW?

Silvereyes have been shown to call at a different pitch to be heard over traffic

BIRDWATCHING AND IDENTIFICATION

Birdwatching provides a valuable opportunity to interact with nature. It is important for birdwatchers to recognise their role in ensuring birds and their habitats are protected. Birdwatchers should keep an appropriate distance from all birds they observe and walk slowly and speak quietly. Where possible, birdwatchers should stay on marked trails and avoid birds' feeding areas or nesting sites (as this may cause parent birds to abandon their nest, and assist predator birds to locate nests). You should avoid moving branches or tree limbs to see birds more clearly, and also avoid leaving any litter. Birdwatchers should respect others and try to not block the view of fellow birders.

Identifying birds can be both daunting and difficult. Bird field guides may appear to be filled with many similar-looking birds that are arranged in a random order. However, most guides are organised according to the different families that classify birds. The most effective way of identifying the birds you see is by learning to quickly recognise what family a bird belongs to. You can do this by becoming familiar with the general size, shape, colour and behaviour of birds and by learning what kinds of birds live in your location. Our ABBC app also has a Field Guide feature in which you can enter basic information about a bird and get a list of possible candidates. Please note: the Field Guide features approximately 400 species (so not all of the birds in Australia, but the more common ones).

Tawny Frogmouth Chicks

Lesson Outline

TIME	ACTIVITIES	RESOURCES
0–5 mins	1. WHY MONITOR Explain the importance of monitoring and how to set up a count for the ABBC	
5-60 mins	2. HOW TO IDENTIFY BIRDS Instruct students on how to identify birds using the ABBC app and field guide (optional)	ABBC app, field guides (book), printed/laminated pictures of birds
60-75 mins	3. BIRDING AND BINOCULARS (optional) Instruct students on how to use binoculars and practise with them	ABBC app, field guide, notebook, pencil, binoculars, A4 bird photos and attachments (e.g. bamboo sticks)
75-85 mins	4. THE BIRDWATCHER'S CODE Explain ways to go birdwatching responsibly	Code of birdwatching ethics sheet (see additional resources)
85-130 mins	5. TAKING PART IN AN AUSSIE BACKYARD BIRD COUNT Undertake a bird count using the ABBC app	Clipboard, pencil, ABBC app, binoculars

Activities

1 WHY MONITOR?

Explain why monitoring is important and how to design and carry out a successful scientific survey

Outline the reasons that scientists use tools such as monitoring to collect data and the sort of questions that can be investigated:

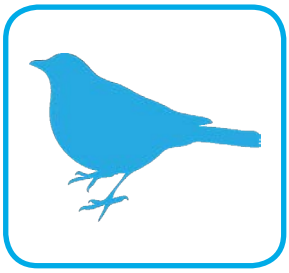
1. To determine how birds are affected by habitat loss and pollution
2. To map bird migration and document long-term changes in bird numbers
3. To develop management guidelines for birds
4. To investigate the effects of climate change and advocate for the protection of declining species
5. To look at changes before and after habitat restoration

Accurate monitoring requires more than one survey to be conducted. Explain to students that standardising the monitoring methodology that is used is important to ensure information between surveys can be compared and the time limit imposed during the ABBC surveys.

Provide students with different examples for surveying birds:

1. Opportunistic sightings - whenever/wherever they are able
2. Surveying in a large group from a single spot
3. Setting up small groups along a transect or straight line through the landscape
4. Searching a set area within boundaries using small groups

2 HOW TO IDENTIFY BIRDS



There are two options available for identifying birds in this activity. You can use the Field Guide in the ABBC app or hard-copy field guides. (Note: many students may have these at home so ask to borrow some ahead of time).

Ask students to work in small teams. Explain the 4 basic keys to identifying birds:

1. The size and shape of the bird - compare it to something they already know e.g. is it the same size as an Australian Magpie. What sort of outline does it have? Is it the shape of an owl or a duck?

2. Its colours and markings – what obvious colours or features stand out. Is it multi-coloured, does it have a crest or is it striped?

3. Its behaviour and call – how does it move? Does it fly in a straight line like a Rainbow Lorikeet? Does it soar like a Pelican? Calls can be difficult for new birdwatchers, but at the very least a call can indicate where a bird is so you can try to spot it. Ask the students to give some calls they know.

4. Its location - what sort of habitat are you in? Do you see the bird on the ground or high up in the tops of the trees?

Encourage the students run through this 4-step checklist any time they see a bird. It will help them piece together the puzzle when they look in the app or in a field guide.

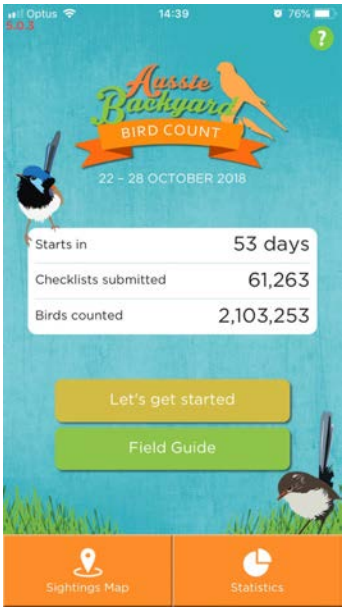
Option 1: Using the Field Guide in the ABBC app

1. Select 'Field Guide' from the home screen

2. Pick the approximate size of the bird. There are common birds listed to compare them to. If you don't know, select skip

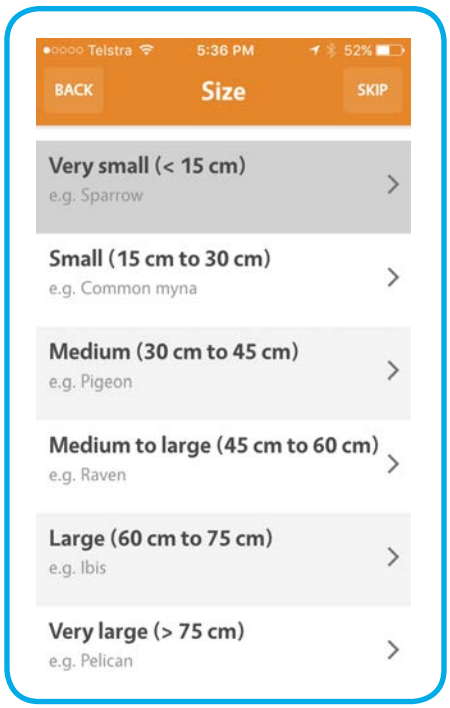
3. Select an outline that best matches the shape of your bird from the silhouettes (scroll up to see all options)

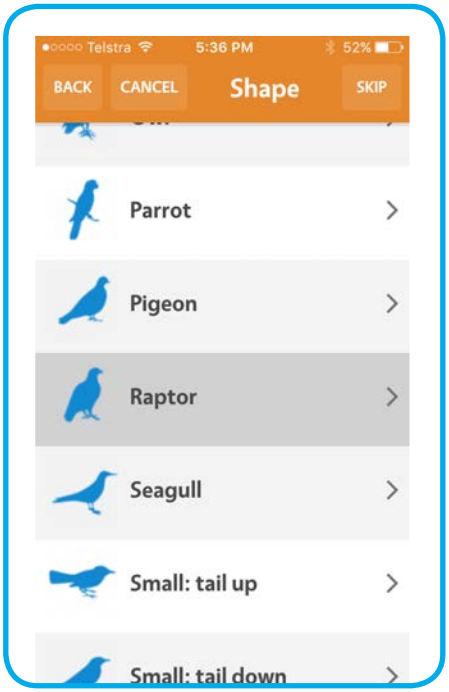
4. Select one or two colours on the bird. It is better to select fewer colours than putting in too many colours



5. View your results. You will see the name of the birds that match your search terms, a description, photos and a distribution map (where in Australia the birds live). If you click on the image or the map, you can enlarge them

Assign the students to small teams and provide each team with images of two birds - one common bird such as a Sulphur-crested Cockatoo and one less common bird such as a Fairy-wren or Spinebill (make it relevant to your location). As the photos won't be to scale, let the students know the size of the bird. Ask students to identify the birds using the bird ID keys and the field guide and record the bird names and one fact about them from the text.





Option 2: Using a hard-copy field guide

1. A bird field guide is a book to help the observer identify birds. It is generally designed to be brought into the 'field' when watching birds.

2. Field guides are arranged by taxonomic order, meaning all birds in the same family are located together. It is not alphabetical.

3. Field guides typically include a detailed description of the bird and its behaviour, together with illustrations, photographs and distribution maps.

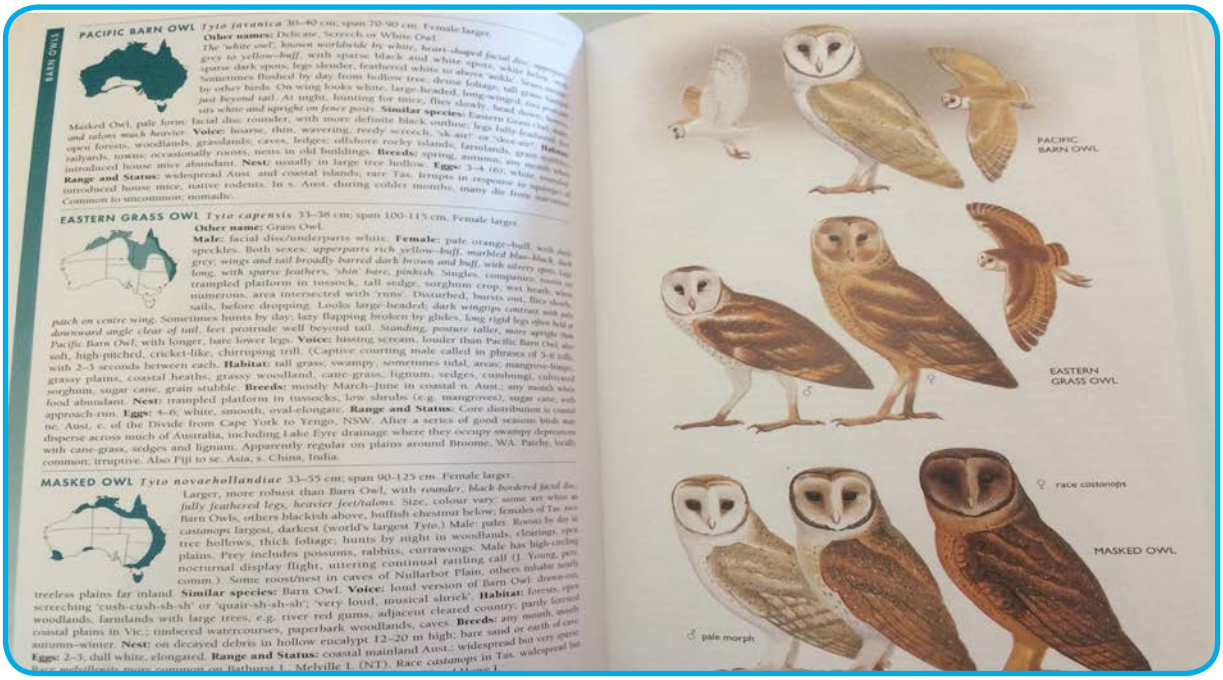
4. The easiest way to ID birds using a field guide is to learn what family your bird belongs to. There will be a key in the front of the book. Look to see what picture resembles the bird you saw, it may not be an exact match.

5. When you think you know which family your bird belongs to, locate the family in the field guide and look for the illustration of your bird, read the relevant text carefully and check the map to make sure it is likely to be found in your area.

6. Provide each team with images of two birds - one common bird such as a Sulphur-crested Cockatoo or Australian Magpie and one less common bird such as a Fairy-wren or Spinebill (make it relevant to your location).
   Ask students to identify the birds using the bird ID keys (below on pg. 27) and the field guide and record the following:

   a. Bird name - Sulphur-crested Cockatoo

   b. Bird family - Cockatoos Family Cacatuidae



3 BIRDWATCHING AND BINOCULARS

Explain the different parts of the binoculars to students and show them the correct way to use them. Note, if you don't have access to binoculars, this activity is not necessary. The students can still see many birds in the schoolyard without using binoculars (birdsinbackyards.net/Bird-Watching-Equipment).

- Organise the students into their birdwatching teams. Warn them not to walk/run with binoculars held up to their eyes and not to look at the sun!
- Provide each team with binoculars
- Describe the different parts of the binoculars and how they function.

Assist students to use the binocular by directing them to:

1. Place the strap around their neck and ensure it is kept there whenever they are using them.

2. Fit the binoculars to their eyes - start with the binoculars rolled out to a place you know is too big for their eye width. Ask the children how many circles they see, if they're looking through the binoculars they should indicate that they see two circles. Have them slowly roll the binoculars smaller and smaller, and tell them to stop as soon as the two circles become one.

3. Zero in on a specific object: Have them stare at a relatively close object (maybe 5 or 6 m away) before putting the binoculars up to their eyes. Tell them to continue staring really hard at that object, they need to keep their eyes right on it and not look down to their binoculars. Have them bring the binoculars up to their eyes without looking away from the object. It will take some practise but eventually the children will see the object (note it may be fuzzy).

4. Adjust the focus. While they are staring at the object put their finger on the focus wheel (the rolling knob on the top), explain that this is the wheel that focuses the picture. Ask them if the object they are looking at looks blurry, likely it will (if not unfocus the binoculars so they can practise). Have them roll the wheel until the object they are looking at becomes clear.

If there are birds around they can practise looking at these. Alternatively, cut out some large A4-sized bird pictures and position them around the yard (stuck to buildings or on sticks). Children can practise focusing on these and describing the birds according to the 4-step checklist.

4 THE BIRDWATCHER'S CODE

Prepare students to carry out a bird count by reviewing the ethics of birdwatching

- Inform students that they will be designing and carrying out a school grounds bird count for the ABBC. Before doing so they need to consider how to minimise the impacts they have on birds and their habitat.

- Ask students to suggest what kind of behaviour is appropriate and also inappropriate when counting birds.

- Provide each student with a copy of the Code of Birdwatching Ethics sheet (found in Additional Resources). Assist students to read this carefully and sign.

5 TAKING PART IN AN AUSSIE BACKYARD BIRD COUNT

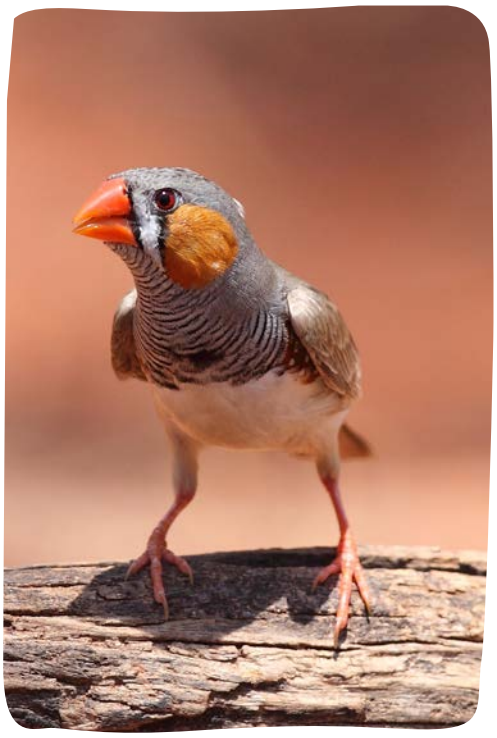
Let the children know it is time to do an Aussie Backyard Bird Count! These can be done prior to Bird Week and also as many times throughout the week as you like.

- Discuss an appropriate survey methodology for their 20min surveys (small groups along a transect or small groups searching set areas throughout the schoolyard)
- Assign the students to their small groups/ teams and ask them to select a team name
- Break the children up into their birdwatching teams and give them the equipment they need (iPad with app, notebook, binoculars, field guide)
- They should be able to take turns performing each function within the team (birdwatchers, scribe)
- Talk them through methodology they are going to use and revise the steps they will take. Show them the app

1. Enter your school's name and details (using your email address)
2. 'Choose your location': Type the address of the school or move the red pin to set the location.
3. They have 20 mins to complete the count (the app will count down for them)
4. If they know the name of the bird, they type it in the app, if not, they can use the inbuilt Field Guide
5. Remind them of the importance of putting in accurate data (so not seeing 100 penguins) and to still record having done a survey if they see no birds, and remind them of how to use the app Field Guide

BIRD ID KEYS

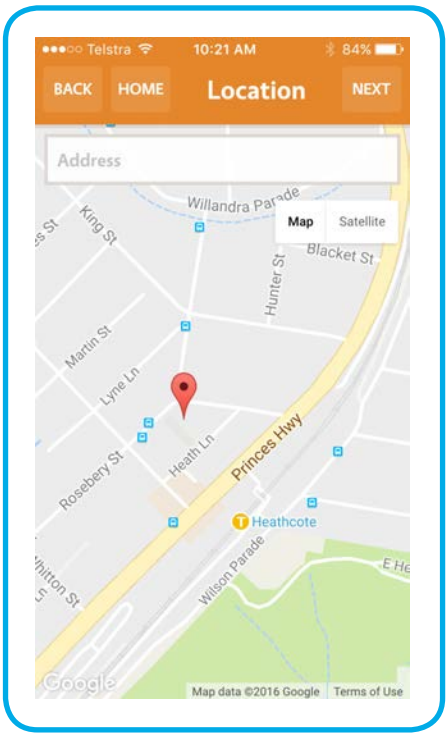
1. The size and shape of the bird
2. Its colour and markings
3. Its behaviour and call
4. Its location

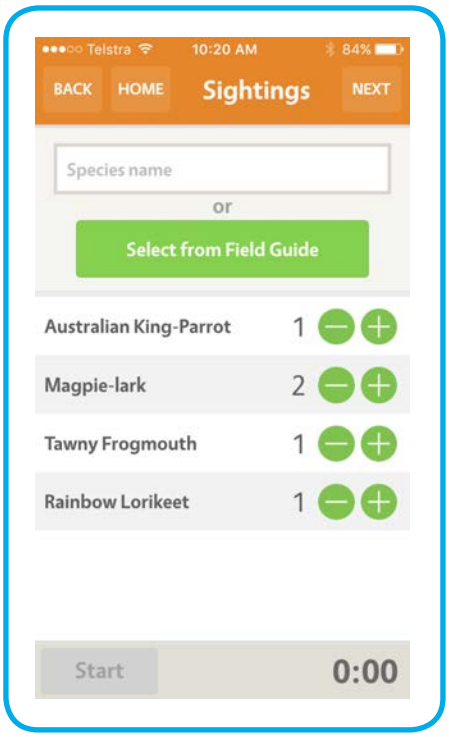


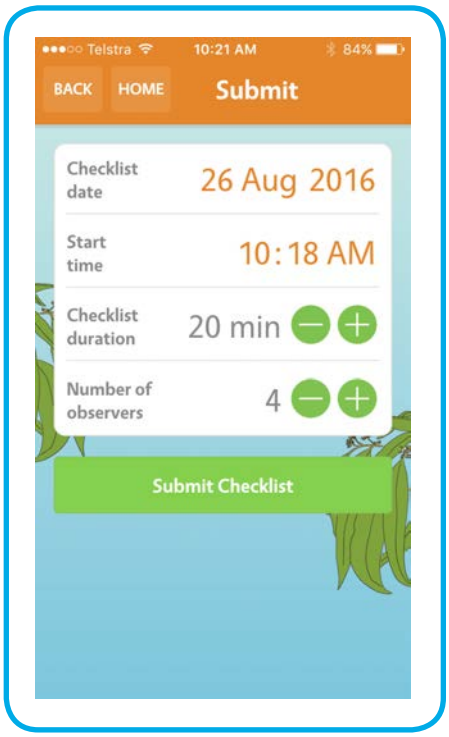
Zebra Finch

6. If they find a bird they can't ID and can't find it in the app Field Guide or in a hard-copy field guide, have them write some notes about what they saw and see if it can be identified later. It is better to omit recording a species if they are not sure.

After the children have done their 20 min count, gather them all together and have a discussion on what they saw, anything they couldn't identify and any problems they had. The count can be repeated any time throughout Bird Week.







Tip: If you use your school's name each time you submit a count, we can pull out the data for your school once the ABBC is complete.