

Australia's National Science Agency

# The Great Koala Count

Class activities: Years 4-6



# Contents

Year 4 – Visualising koala populations	4
Year 4 – Koala fingerprints	6
Years 4-6 – Tracking	8
Year 5 – Koala adaptations	.11
Years 5/6 – Koala count	.13
Year 6 – Koala adaptations	.15
Appendix	. 16
Examples of koala adaptations	.17
Koala images	.19
Printouts	. 24
Year 4 – Visualising Koala Populations – Task 2	.25
Year 5 – Koala adaptations – Task 2	.26
Year 6 – Koala adaptations – Task 1	.28
Year 6 – Koala adaptations – Task 2	.30
CSIRO Education: Opportunities for teachers and students	.31

# About CSIRO's teacher resources

CSIRO, the national science agency, has been delivering high-quality STEM education and outreach programs and initiatives for Australian teachers, students and the community for over 40 years.

We are proud to support National Science Week and teachers with webinars featuring real-world science and curriculum-aligned learning activities.

This collection of activities has been prepared in conjunction with Australian-based educators.

While activities include an indication of what learning stage they may be suitable for, teachers are invited to see these as recommendations and modify the activities as appropriate for their circumstances and students' needs.

## About the National Koala Monitoring Program

Koala populations across New South Wales, the Australian Capital Territory and Queensland are now listed as endangered under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). In other regions of South Australia and Victoria there are concerns about local koala populations.

In response, the Australian Government announced in 2022 that it was committing \$10 million over 4 years to CSIRO to lead and coordinate a National Koala Monitoring Program (NKMP). The aim of the NKMP is build and deliver a robust estimate of koala populations nationally and build a long-lasting capability to monitor and assess trends in koala populations across the species range.

CSIRO scientists are working with local and state governments, agencies, university partners, rangers, local communities and Indigenous Australians to deploy the best available technical methods to monitor for koalas. These include drones, systematic visual surveys, data integration from previous and historic sources, scat analysis, detection dogs and citizen science apps that are being combined using the latest analytical approaches to provide a data-driven understanding of the population and distribution of koalas Australia-wide.

Find out more at the National Koala Monitoring Program website.

# Year 4 – Visualising koala populations

# **Curriculum links**

#### Science

- AC9S4U01 explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships
- AC9S4I01 pose questions to explore observed patterns and relationships and make predictions based on observations
- AC9S4I02 use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment
- AC9S4I04 construct and use representations, including tables, simple column graphs and visual or physical models, to organise data and information, show simple relationships and identify patterns
- AC9S4H01 examine how people use data to develop scientific explanations

#### HASS

- AC9HS4K05 the importance of environments, including natural vegetation and water sources, to people and animals in Australia and on another continent
- AC9HS4S02 locate, collect and record information and data from a range of sources, including annotated timelines and maps
- AC9HS4S03 interpret information and data displayed in different formats

# Background

Using a <u>variety of data collection methods</u> the National Koala Monitoring Program (NKMP) has developed a visual of the predicted probability of koala presence. See the <u>National Koala</u> <u>Monitoring Program website (nkmp.org.au)</u>

As we have more data about koala populations the estimates have changed:

- The latest data-driven estimate of population size for the listed koala population, without making any additional assumptions, is between 95,000 and 238,000.
- The adjusted population estimate in 2023, accounting for areas where there is little or no data, generated a listed koala population estimate between 86,000 and 176,000 koalas.
- This broadly aligns with the Threatened Species Scientific Committee (TSSC) estimate of 92,184 koalas in the combined Queensland, New South Wales and Australian Capital Territory population, based on best available information and expert elicitation in 2021.
- The latest population estimate for the unlisted koala population is between 129,000 and 286,000 individuals.

Further information can be found at National Koala Monitoring Program (nkmp.org.au)

Koalas prefer environments that:

- Have rainfall above 500mm a year
- Sit at altitudes below 1200m
- Have a presence of koala food trees with eucalyptus-heavy woodlands; and
- Do not have temperatures above 40 degrees Celsius for many consecutive days.

# Task 1 – Koala habitats

Using sticky-notes ask students to write three words that they think describe a koala's habitat. This could be the name of states, weather, or adjectives.

Compile everyone's ideas and discuss any patterns or similarities.

Look at the map and table shown on <u>National Koala Monitoring Program (nkmp.org.au)</u> and discuss what they are trying to show.

Reflection questions:

- What do the colours on the map mean?
- How do we know what the colours mean?
- Why is the scale from 0-1 on the maps?
- Why have estimates of koala populations changed over time?
- Why is it important to change our ideas based on new facts?

# Task 2 – Mapping koala habitats

Students label <u>a blank Australian map</u> with the names of the states, using an atlas if necessary. Use two colours to map out the predicted koala populations using the maps on <u>National Koala</u> <u>Monitoring Program (nkmp.org.au)</u>. Encourage students to use a key.

# Task 3 – Koala distributions

Draw attention to the states that have koala populations. Brainstorm as a class the reasons why only some states have koala populations.

In small groups, allow students to investigate these ideas e.g. looking up temperature and rainfall averages. As a class, discuss any patterns that they find and evaluate if any of the data matches their predictions.

# After lessons

Send home information on the Koala Spotter app for parents. Families can use the app to contribute to data collection of koala populations. <u>Download this PDF</u>.

# Year 4 – Koala fingerprints

# **Curriculum links**

#### Science

- AC9S4U01 explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships
- AC9S4I01 pose questions to explore observed patterns and relationships and make predictions based on observations
- AC9S4I02 use provided scaffolds to plan and conduct investigations to answer questions or test predictions, including identifying the elements of fair tests, and considering the safe use of materials and equipment
- AC9S4I03 follow procedures to make and record observations, including making formal measurements using familiar scaled instruments and using digital tools as appropriate
- AC9S4I05 compare findings with those of others, consider if investigations were fair, identify questions for further investigation and draw conclusions

# Background

Koalas have fingerprints similar to humans and sensitive pads on their feet. It is believed this could be to help the koalas climb and grip trees, or to identify the texture of eucalyptus leaves.

## Task 1 – Koala features

As a class, brainstorm the features that a koala has that helps them to live in their habitat (e.g. fur, colour, small/big ears, large claws.)

Introduce the idea of koalas having fingerprints. Give students time to investigate their own fingerprints, using magnifying glasses if available. Ask students to share why they think koalas might need fingerprints.

## Task 2 – Investigating textures

#### Setup

Obtain a collection of different texture items e.g. sandpaper, fabric, rocks, leaves, aluminium foil.

#### Investigation

- 1. Explain that koalas have sensitive pads on their hands and feet that help them grip tree branches.
- 2. Divide students into pairs.
- 3. Provide pairs with smooth and rough-textured objects (e.g., stones, sandpaper, fabric).
- 4. One student in each pair needs to close their eyes or wear a blindfold if they are comfortable to simulate reduced visibility.

- 5. The blindfolded student will use their hand to identify and distinguish between smooth and rough-textured objects placed in front of them.
- 6. Ask the closed eye/blindfolded students to rank the items from roughest to smoothest. Students can record their results by taking a photo or drawing the items in order.

# Task 3 – Analysing results

Compare the results as a class. Were there any patterns in what items were ranked as rough and smooth? Ask students to share any new ideas they have about why koalas have fingerprints, or if they have changed their mind from before the investigation.

#### **Discussion questions:**

- Was this a fair investigation?
- What could we do to make it fairer?
- Why is it important to make our investigations fair?

# Years 4-6 – Tracking

These activities have been reproduced from CSIRO's <u>Two-Way Science: An Integrated Learning</u> <u>Program for Aboriginal Desert Schools</u> by Chris Deslandes, Sally Deslandes, David Broun, Cameron Hugh, Fiona Walsh, Felicity Bradshaw and Joanna Griffith. A Two-way Science approach promotes Indigenous leadership in education, and fosters partnerships between schools, communities, Indigenous ranger programs and scientists.

# **Curriculum links**

#### **Cross curriculum priorities**

• Aboriginal and Torres Strait Islander Histories and Culture

## Science

- AC9S4U01 explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships (Year 4)
- AC9S5U01 examine how particular structural features and behaviours of living things enable their survival in specific habitats (Year 5)
- AC9S6U01 investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions (Year 6)
- AC9S5H01/ AC9S6H01 examine why advances in science are often the result of collaboration or build on the work of others (Year 5 and 6)
- AC9S4I04 construct and use representations, including tables, simple column graphs and visual or physical models, to organise data and information, show simple relationships and identify patterns (Year 4)
- AC9S5I04/ AC9S6I04 construct and use appropriate representations, including tables, graphs and visual or physical models, to organise and process data and information and describe patterns, trends and relationships (Year 5 and 6)

The activities in these resources are suggestions and examples. At all times it is important for Aboriginal people to lead the cultural learning by choosing what they want the students to learn. Suggestions for science, literacy or numeracy activities need to be contextualised to the students' capabilities and current learning.

Students learn the traditional skills of tracking from an expert tracker. They learn how tracking is used for hunting and also how it is used today to support conservation projects on Aboriginal-managed land. Students learn about the habits and movement of animals by learning to make animal tracks in the sand. Expert trackers lead students on a field trip where students will use a data sheet to record the animal tracks, scats and burrows they identify.

# Background

Tracking is a cultural skill used by Aboriginal people to identify and hunt for animals. Many Aboriginal people can tell the species, size, sex, and behaviour of animals from their tracks as well as the time the tracks were made. Tracking is a key skill used by Aboriginal rangers working with scientists to determine if threatened and feral species live in an area.

# Task 1: What do we already know about tracks?

Students share what they already know about tracking. Ask students:

- What animal tracks do you know?
- Can you make animal tracks in the sand?
- What tracks do you want to learn about?
- What are the animals called in Standard Australian English? In Language?

Students' ideas can be documented in individual or whole class Two-Way Science journals through drawings/writing, or a class chart.

# Task 2: Talk about animals and their tracks

Invite one or more expert trackers to talk to the students about tracking in the old days and how tracking is used now. Ask permission to record the talk so the students can listen to it again, and later write about what they learn.

The expert trackers may talk about:

- tracking when hunting
- tracking to find water
- tracking to know who was around
- tracking if someone was missing.

Arrange with a local ranger group or Aboriginal expert to work with students.

They can use pictures of local animals and their tracks to:

- teach students animal tracks and names in Language
- run a quiz for the students using the pictures.

Use the pictures of animals, tracks and Language names to create cards for sorting and classifying activities in class, and to place on the class word wall.

# Task 3: Draw animal tracks

Aboriginal people have developed particular techniques, using different parts of their hands, to replicate tracks in sand, as part of teaching others about tracks.

- Find a flat sandy place, or collect sand and spread it out on a tarp.
- Ask students to sit around it.
- Use the photos of the animals and their tracks for Elders to talk about each animal, where it lives and what it eats.
- Aboriginal expert demonstrates how to make the track of each animal, and students copy.

## Task 4: Game: What animal are you?

Play a game where students make the tracks in the sand and show how the animal is moving. Other students guess the animal, and what they are doing.

# Task 5: Plaster casts of tracks

Tracks can be recorded using plaster. Start by making casts of students' own feet, then record animal tracks on country. An expert tracker can describe the way that animals make different tracks depending on how they move, their weight and how heavy they are. Tracks can be different when made on different ground. Ask the students: Why is sand good for tracking?

## Task 6: Bringing it all together

Using what the students have learnt about animals tracks and tracking, discuss how it relates to data collection on the koala population.

What kind of tracking techniques do scientists use to estimate the koala population? Compare students' ideas with this website: <u>National Koala Monitoring Program (nkmp.org.au)</u> to see how Aboriginal science practices have influenced the methods used by scientists now.

# Year 5 – Koala adaptations

# **Curriculum links**

#### Science

- AC9S5U01 examine how particular structural features and behaviours of living things enable their survival in specific habitats (Year 5)
- AC9S5I01 pose investigable questions to identify patterns and test relationships and make reasoned predictions
- AC9S5I02 plan and conduct repeatable investigations to answer questions, including, as appropriate, deciding the variables to be changed, measured and controlled in fair tests; describing potential risks; planning for the safe use of equipment and materials; and identifying required permissions to conduct investigations on Country/Place
- AC9S5I03 use equipment to observe, measure and record data with reasonable precision, using digital tools as appropriate
- AC9S5I04 construct and use appropriate representations, including tables, graphs and visual or physical models, to organise and process data and information and describe patterns, trends and relationships

## Background

Koalas have a keen sense of smell that enables them to sniff out the level of toxins and freshness of eucalyptus leaves to decide which ones are best to eat.

## Before the lesson

Cut up the eucalyptus leaves and place them into different bowls with a small amount of water, this will help activate the eucalyptus oil in the leaves. Label the bowls with numbers and keep the freshness of the leaves hidden until the end of the experiment. (e.g. dried, wilted, brown, fresh)

# Task 1 – Introducing adaptations

Show pictures or videos of koalas in their natural habitat. Discuss where koalas live, what they eat, and their general characteristics.

Explain the concept of adaptations and how they help animals survive in their environment. Focus on adaptations specific to koalas. See <u>Examples of Koala Adaptations</u> in the appendix.

# Task 2 – Testing koala senses

#### Setup

- 1. Divide students into small groups.
- 2. Use the investigation planner if suitable
- 3. Provide each group with a set of eucalyptus leaves (varying freshness) and small bowls or cups filled with water.
- 4. Explain that koalas rely heavily on their sense of smell to find suitable leaves to eat.

## Procedure

**Hypothesis:** Ask each group to formulate a hypothesis about whether koalas prefer fresher or older eucalyptus leaves based on their sense of smell. Their hypothesis should include a reason.

## **Testing**:

- Randomly present each sample to the students one at a time.
- Have students record observations on which samples they think koalas would prefer based on smell. (Based on their own opinion but ask students have a reason they chose their number.)

## Data collection:

- After testing each sample, discuss and record the observations and conclusions of each group.
- Compile the data as a class and discuss any patterns or differences observed.

# Task 3 – Presenting findings

Have each group present their findings and conclusions to the class.

Discuss the results as a class:

- Did students' predictions match the results?
- What factors might affect a koala's choice of eucalyptus leaves?
- Relate the experiment results to how koalas' adaptations help them survive in their environment.

# Task 4 – Graphing results

As a class, compile the leaves they chose as the freshest leaves and display as a pictograph, bar graph or pie graph.

# Years 5/6 – Koala count

# **Curriculum links**

#### Science

- The growth and survival of living things are affected by physical conditions of their environment (ACSSU094)
- Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)

#### **Design technologies**

- Generate, develop and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques (ACTDEP025)
- Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions (ACTDEP026)
- Develop project plans that include consideration of resources when making designed solutions individually and collaboratively (ACTDEP028)

# Background

Scientists use a variety of ways to ascertain the koala population. The combination of many methods of data collection creates more accurate and reliable data.

Information about the methods employed by the National Koala Monitoring Program can be found <u>on its website</u>.

# Task 1 – The challenges in koala hide & seek

Identify difficulties in monitoring koala populations. Lead a class discussion with questions:

- Why is it important to have an accurate estimation of the koala population?
- Why might it be hard to estimate the koala population accurately?

In pairs, students read this article: <u>Working with all Australians to win the game of koala hide and</u> <u>seek</u> and write down why they think koalas can be difficult to see on sticky notes. Alternatively, <u>see</u> <u>this video</u>.

If students are unable to read the whole article, a good place to start is with this quote from Dr Andrew Hoskins:

"You know, when you see them, right? They're super easy to identify. Anyone can see a koala and know that it's a koala, but they're actually quite cryptic in their environment. They sit up high which can make them very hard to spot, unless you're in an area where there's loads of them.

They're also active mostly at night meaning we're not often around them when they're moving about," Andrew says.

Collate the sticky notes as a class and display where it can be seen by everyone.

# Task 2 – The methods of monitoring koalas

Students visit <u>National Koala Monitoring Program (nkmp.org.au)</u> and complete a placemat activity individually or in small groups to take notes on the different data collection methods.

As a class, discuss the benefits of each method and why it is important to use more than one method. Focus on how data is more accurate when it can be confirmed by other sources.

# Task 3 – Innovating for koala conservation

Students use what they have learnt about data collection methods, and difficulties in spotting koalas to design something that helps. This can be an idea, or an invention such a gadget that enables more koalas to be counted, or how to get more people to use the <u>Koala Spotter app</u>.

Give students time in small groups or individually to design and describe their idea, including labels and a list of resources they may need.

Give students time to produce their idea, using recycled materials, posters, or digital presentation tools. Encourage them to use the design-test-reflect model and to make changes to their design as they go.

Provide an opportunity for students to present their work and explain it to their peers.

## Reflection

- Will my design/idea help us get better data about koala populations? How?
- What went well with my design?
- What would I change about my design?

## After lessons

Send home information on the Koala Spotter app for parents. Families can use the app to contribute to data collection of koala populations. <u>Download this PDF</u>.

# Year 6 – Koala adaptations

# **Curriculum links**

#### Science

- AC9S6U01 investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions (year 6)
- AC9S6106 write and create texts to communicate ideas and findings for specific purposes and audiences, including selection of language features, using digital tools as appropriate (year 6)

#### **Design technologies**

• AC9TDE6P02 generate, iterate and communicate design ideas, decisions and processes using technical terms and graphical representation techniques, including using digital tools (year 5 and 6)

# Background

Koalas have structural, behavioural and physiological adaptations that enable them to live in their environment. These adaptations vary by region and subspecies of Koala (Northern/Southern). See <u>Examples of Koala Adaptations</u> in the appendix.

## Task 1 – Research & using a table

Students <u>fill in the table</u> identifying koala adaptations and their purpose. They can use the internet or books for research, as well as class discussions.

## Task 2 – Adapting for new biomes

Once students understand the connection between environment and adaptations, they will be given a <u>task card</u> with a new biome for their koala to live in. They need to identify what adaptations the koala might need to live in this new biome and justify their choices.

They can work in groups and draw or write their ideas, or alternatively present their ideas digitally.

Encourage students to identify adaptations that are structural, behavioural and physiological. Students may need to research living things from their biome, to identify appropriate adaptations.

# Appendix



# Examples of koala adaptations

#### **Structural adaptations**



#### Northern koalas

Temperature regulation:

- Smaller body
- Thinner fur
- Leaner bodies
- Larger ears to disperse heat

#### Environmental:

- Grey fur to blend in with vegetation
- Sharp claws for climbing



#### Southern koalas

Temperature Regulation:

- Bigger body size
- Denser fur
- Thicker bodies
- Smaller ears to conserve heat

#### Environmental:

- Brown fur to blend in with vegetation
- Sharp claws for climbing

#### **Physiological adaptations**

- Koalas' digestive systems have adapted to eating eucalyptus leaves, a food source that would be toxic to most other living things.
- Koalas have a good sense of smell that they use to determine toxin levels in eucalyptus leaves, and choose the best ones to eat.

#### **Behavioural adaptations**

- Koalas adjust their activity schedule according to the weather, being most active during transitional times such as dusk and dawn.
- To further regulate body temperature Koalas will lie and stretch out on branches to disperse body heat.















Printouts





• Include a key

•0

# Planning

# Question:

Change variable:	Measurable variable:
Control variables:	
Hypothesis:	
We are going to find this out by	

What happened?		
Why?		
Was the prediction correct?		
In what ways could we improve what we did? Was this a fair test?		

# Structural adaptations





#### Arctic Tundra

An arctic biome has cold, desert-like conditions.

Average winter temperature: -34 degrees Celsius

Average summer temperature: 3 degrees Celsius.

The Arctic Tundra has a permafrost all year round, so woody plants do not survive. Some of the vegetation in the arctic include reindeer moss, liverworts and lichens.

Most animals that live in the Tundra are carnivores due to limited availability of vegetation.

Rainfall average: 150-250mm per year

Think about what adaptations will be necessary for your koala to survive.

- Where will your koala live?
- What will the koala's diet be like?
- What will the koala's body covering be like?
- What adaptations would you make to the koala's body?
- How would the koala's behaviour need to change?



#### Rainforest

The tropical rainforest is a hot, moist biome known for raining year-round.

Average daily temperatures: 20 - 30 degrees Celsius

Due to the abundance of water and nutrients vegetation can grow thick and tall, up to 75m. Very little sunlight reaches the rainforest floor.

Rainforest biomes have a diverse range of animals, including insects.

Rainfall average: 2000-10,000 mm per year

Think about what adaptations will be necessary for your koala to survive.

- Where will your koala live?
- What will the koala's diet be like?
- What will the koala's body covering be like?
- What adaptations would you make to the koala's body?
- How would the koala's behaviour need to change?



#### Desert

Desert biomes are the driest of all biomes.

Average daily temperature of Australian desert: 24-40 degrees Celsius

Average nightly temperature: 0 -19 degrees Celsius

Animals and plants that live in the desert have adapted to the high temperatures and water scarcity. Plants often store water.

Rainfall average: 81-250mm per year

Think about what adaptations will be necessary for your koala to survive.

- Where will your koala live?
- What will the koala's diet be like?
- What will the koala's body covering be like?
- What adaptations would you make to the koala's body?
- How would the koala's behaviour need to change?

# Your koala now lives in: A grassland biome

#### Grassland

Grassland biomes have large open plains, with little elevation.

Average daily temperature is: 23 to 27 degrees Celsius

The land in dominated by grass plants, with sparse tree or shrub cover.

Often referred to tussock grasslands in Australia, due to the type of grassy vegetation growth.

Rainfall average: 200-350mm per year

Think about what adaptations will be necessary for your koala to survive.

- Where will your koala live?
- What will the koala's diet be like?
- What will the koala's body covering be like?
- What adaptations would you make to the koala's body?
- How would the koala's behaviour need to change?

# CSIRO Education: Opportunities for teachers and students

At CSIRO, we're passionate about the power of science, technology, engineering and mathematics to unlock a better future for all Australians.

We offer a range of programs nationally, all designed to bring real science to life in our classrooms and communities. All of our resources are curriculum-aligned and use best practice STEM teaching methods.

#### **STEM Professionals in Schools**

STEM Professionals in Schools is a national skilled volunteer program that facilitates flexible, ongoing partnerships between STEM professionals and teachers. Through these relationships, STEM Professionals in Schools brings real science, technology, engineering and mathematics into Australian classrooms. <u>csiro.au/STEM-Professionals-in-Schools</u>

#### **STEM Together**

STEM Together builds capability, confidence and connection with real-world STEM for young people in Years 5-10 and the adults that support them. STEM Together prioritises opportunities for Year 5–10 students that identify as at least one of the following groups: Aboriginal and/or Torres Strait Islander, female, from schools in regional and/or lower opportunity areas. <u>csiro.au/stem-together</u>

#### **Generation STEM**

Generation STEM is a 10-year program designed to attract, support, train and retain NSW students in STEM educational and career pathways. As part of Generation STEM, the STEM Community Partnerships Program targets Year 7 to 10 students, helping to develop their STEM skills and provide exposure to local STEM careers and pathways. Deadly in Generation STEM aims to increase the participation of NSW Aboriginal and/or Torres Strait Islander students in STEM, through Culture and On Country. Generation STEM Links provides high-quality internships to help tertiary students gain relevant workplace skills and transition into STEM jobs after graduation. <u>csiro.au/generationSTEM</u>

#### Young Indigenous Women's STEM Academy

Funded by the National Indigenous Australians Agency, the Young Indigenous Women's STEM Academy provides a holistic, streamlined approach to support to Aboriginal and/or Torres Strait Islander young women in secondary school through tertiary studies and onto exciting careers in STEM. The Academy promotes access to STEM careers through a range of opportunities, tailored to each student. <u>csiro.au/yiwsa</u>

## Creativity in Research Engineering Science and Technology (CREST)

CREST is a non-competitive awards program that supports both primary and secondary students in the design and implementation of their own open-ended science investigation or technology project. <u>csiro.au/crest</u>

#### **PULSE@Parkes**

With this innovative program, secondary school students observe with the iconic Parkes radio telescope live but remotely to view pulsars, analyse their data and meet with our professional astronomers. <u>research.csiro.au/pulseatparkes</u>

## Atlas of Living Australia

The Atlas of Living Australia is an online database of more than 55 million species of flora and fauna. There are also classroom activities using the ALA that align with the Australian Curriculum. <u>ala.org.au</u>

#### Living STEM: Connecting Indigenous knowledges to the classroom

Through participation and completion of Living STEM, educators are equipped with the knowledge, practices and resources required to implement the Living STEM inquiries in their classroom. The program provides a mixed delivery model of online and face-to-face activities to meet the educational needs of clusters and individual schools in the Perth and Pilbara regions of Western Australia. <u>csiro.au/living-stem</u>

#### **Educational Datasets**

Real-world CSIRO research data is available for students to analyse. These datasets are differentiated and supported by teaching resources to build data literacy skills from novice to programmer. Suitable for Years 3–6 and 7–12. <u>csiro.au/Datasets</u>

## **Double Helix**

*Double Helix* is Australia's leading science magazine for school-aged children, designed to foster an interest in STEM. *Double Helix* Extra is our free email newsletter delivering news, quizzes and hands-on activities straight to your inbox. <u>doublehelixshop.csiro.au</u>

As Australia's national science agency and innovation catalyst, CSIRO is solving the greatest challenges through innovative science and technology.

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# For further information and to share feedback

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