



Caring for wetlands – the Noongar way 3: caring for kooya



Number three in a series of three lessons:

- Caring for wetlands – the Noongar way 1: kooya boodja (Frogs' Land)
- Caring for wetlands – the Noongar way 2: kooya's life cycle
- **Caring for wetlands – the Noongar way 3: caring for kooya**

CURRICULUM INFORMATION

PHASE OF DEVELOPMENT

Early Childhood	Middle Childhood	Early Adolescence	Late Adolescence
✓	✓		

MAJOR LEARNING AREAS

The Arts	English	H & PE	LOTE	Mathematics	Science	S & E	T & E
			✓	✓	✓ ✓	✓	

VALUES

Pursuit of knowledge & commitment to achievement of potential	Self acceptance & respect of self	Respect & concern for others & their rights	Social & civic responsibility	Environmental responsibility
		✓	✓	✓

DISTRICT

This lesson has been developed by teachers in the following district:
Swan

TOPIC INFORMATION

PURPOSE

To create an awareness of the importance of protecting natural resources and to provide an opportunity for students to learn how Noongar people do this. Also, to guide students to discover how Noongar people of the local area have always understood the importance of frogs in the eco-system.

These activities give students opportunities to watch in nature what they learned about the frog's life cycle in the previous lesson.

STUDENT OUTCOMES

- Students move towards understanding Aboriginal people and in particular local people, the Noongars.
- Students move towards respecting particular aspects of Aboriginal culture, namely how the people took care of wetlands and lived in harmony with their environment.
- Students examine the life cycle of a kooya (frog) from a Noongar perspective.
- Students learn the Noongar words for the life cycle of kooya (frog).
- Students observe kooya growing.
- Students develop a frog a friendly garden within the school grounds.
- Students maintain and care for kooya and the garden.
- Students move towards developing a level of responsibility and respect for the environment that is in harmony with the way Noongar people have been for thousands of years.





OVERARCHING OUTCOMES

1	2	3	4	5	6	7	8	9	10	11	12	13
	✓			✓	✓	✓	✓	✓		✓		

SCIENCE OUTCOMES

1	2	3	4	5	6	7	8	9
							L1	

Other appropriate Learning Area outcomes, depending on your chosen focus, include:

SOSE: 1, 4, 6

MATHS: 3, 4 & 5

LOTE: 1

KEY BACKGROUND POINTS

Local Noongar people have always taken care of the land, Mother Earth. They have a strong spiritual and cultural link with Nidga Boodja (land). Traditionally, Aboriginal people only took what they needed and moved around so they could live off the land continually, without harming its resources. They were an integral part of their environment.

CULTURAL & PROTOCOL CONSIDERATIONS

We advise teacher and students to:

- demonstrate respect for the Aboriginal community by involving in/inviting into the classroom, local Indigenous people who can provide culturally appropriate information and help with pronunciation of the Noongar language.
- be aware that when approaching a parent/AEIO/student to help you with this lesson you need to be sensitive. Approach people individually, and understand that although they may have expertise in this area, they might not like to be 'shamed' in front of their peers.
- acknowledge specific Aboriginal terms used in this lesson are from the Noongar language.
- demonstrate respect for the environment – at all times.

Please note the following points:

- Traditionally, Aboriginal students achieve better results by working co-operatively, rather than individually.
- Aboriginal English is an integral part of an Indigenous student's identity and needs to be valued as such.
- If using any unpublished resources you require permission from the local Aboriginal community.





RESOURCES

Medium	Author, producer, developer etc	Title	Source
book	WA Museum	<i>Building Frog-friendly Gardens</i>	http://www.museum.wa.gov.au/frogwatch/pages/areas/ffgarden.html WA Museum bookshop: 9427 2776
newsletter from website	WA Museum	<i>Newsletter No 6 Summer 2001</i>	http://www.museum.wa.gov.au/frogwatch/pages/areas/newsletters/newsletter6.pdf
contact person for tadpoles	WA Museum	<i>Getting frogs for your school pond/garden</i>	WA Museum: 9427 2750 Frog watch tadpole exchange
wetland nursery		<i>Bennett Brook Wetland Nursery</i>	Bennett Brook Wetland Nursery, Caversham: 9377 0444 a place to purchase native plants and fish for frog-friendly gardens
website	Zoological Parks Board of NSW 2000	<i>Frogs</i>	http://www.asxfrogfocus.com/ http://www.asxfrogfocus.com/cdinfo/leap/index.html
centre to visit	CALM: Nearer to nature	<i>Hills Forest Discovery Centre</i>	contact: 9295 2244, or http://www.calm.wa.gov.au/tourism/n2n/hf_disc_centre.html
website	WA Govt: Swan Catchment Centre	<i>Frogs, Fauna Friendly Gardening</i>	http://www.wrc.wa.gov.au/swanavon/pdf/pub_frogs.pdf This pdf gives teachers good region-based background knowledge, and provides information about creating a mini-ecosystem.
book	WA Museum: Tyler, Smith & Johnstone, 2000	<i>Frogs of Western Australia</i>	WA Museum
website	CALM: Naturebase	<i>Statewide Wetlands Database Project 2005</i>	http://www.naturebase.net/projects/wetlands_database.html
website	WA Museum	<i>Motorbike Frog</i>	http://www.museum.wa.gov.au/frogwatch/pages/frogs/sw/10.asp
resource centre	Education Department WA	<i>Swan Education Resource Centre</i>	corner Yelverton Drive and Helena St Midland Phone: 9374 0924





TEACHING AND LEARNING STRATEGIES

TEACHING RESOURCES

- information about getting and looking after frogs from the websites suggested, and other resources
- ask parents at your school if they have a pond or creek on their property and if so ask them to provide the classroom with tadpoles (tadpoles will need to be returned once they have grown)
- contact the Western Australian Museum for extra information on types of frogs and habitats
- Zoological Parks Board of NSW 2000 website (see details above) is an excellent classroom resource for students to view and discuss
- data projector and screen for whole class viewing, or computers for pairs of students to use
- student copies of **Learning Guide 1: Kooya life cycle** from lesson 2 in this series
- photographs/pictures of different frogs
- class display using school library resources, posters, soft toy animals and Aboriginal images
- teacher prepared class chart of Noongar/English key words (see details in following section)
- materials for keeping tadpoles and constructing a frog-friendly garden as described in the resources

LESSON STEPS

The following steps are simply a broad guide, you may choose to adapt them, develop them further, and/or to break them into more than one lesson according to the level of your students and your timetabling constraints.

Preparation

- Plan lessons with your school's AIEO and LOTE teachers, where possible, and invite them to co-teach these lessons with you.
- Organise someone to take pictures of stages of the activities you decide on, for records and use in follow up activities.
- Consult Aboriginal students in your school, community or DEO to learn correct protocols, pronunciation and spelling of words you are going to teach students, and invite them to participate in your class activities. The degree to which you do this will impact on the effectiveness of your lesson.
- Consider background knowledge your students may/may not have about the local Aboriginal population. This will vary from school to school, class to class, and student to student.
- Create a supportive learning environment, remind students that everyone is a valued member of your class, and that all answers are accepted and valued. Where possible, if there are indigenous students in your class and they are willing, use them as 'experts' in your lesson.
- Revise and research further information about what frogs need to grow and survive.
- Research information about finding, procuring and keeping tadpoles, and constructing a frog-friendly garden in your school grounds, from recommended resources.
- Plan to keep tadpoles in summer, as this is when frogs lay their eggs. You may prepare the garden in advance.
- Discuss your plan to build a garden with your principal, and decide on an appropriate site.
- Prepare a class chart of Noongar/English key words:
 - kooya – Noongar word for frog (please note there are other Noongar words for frog)
 - noor-go – Noongar word for egg
 - gobul – Noongar word for tadpole
 - gobul touel – Noongar word for legs
 - no-pynt kooya – Noongar word for froglet
 - gaba – Noongar word for water





Implementation

Whole class

- **Revise** the previous lesson using **Learning Guide 1: Kooya life cycle**, going through all stages, showing how gobul (tadpole) becomes kooya (frog).
- **Invite** your Aboriginal co-teacher (if possible) to **explain/capture** Noongar teachings and understanding of the importance of kooya and his environment to give the lesson an Aboriginal perspective.
- **Introduce** your chart of key words to use with different stages.
- **Ask** a Noongar speaker to say the names with students repeating each a number of times, as you go through the stages of the life cycle.
- **Revise** what kooya needs to grow and live.
- **Explain** you'd like to keep tadpoles in the classroom (or garden) for students to observe all the stages until they become frogs.
- **View and discuss** Zoological Parks Board of NSW 2000 website, and others appropriate to the level of your students.
- **Go through the procedure** for getting tadpoles (see resources), making the following points:
 - Tadpoles are not to be collected from the wetlands, creeks or other natural areas.
 - Tadpoles may be collected from domestic areas only. Send a note home with your students asking if anyone has access to tadpoles at their home, such as in a pond in their yard.
 - If you can't get tadpoles this way you may contact The WA Museum (9427 2750) and they will put you in touch with someone in your area who can provide you with tadpoles.
- **Describe** how you plan to keep the tadpoles (see resources) emphasising that students are to be responsible for them. This may include preparing a frog-friendly garden prior to getting them.
- **Use** the Noongar terms for frog and egg as provided on the worksheet when setting up your tadpole observation.

Note: **To assist your students construct** a frog-friendly garden in your school grounds, Swan Catchment Centre (see resources chart) provides excellent information, and so does the how-to booklet, *Building Frog-friendly Gardens*, available at the Museum. Consult with local Noongar people and invite them to be a part of the project.

ASSESSMENT

In addition to observing students' participation at all the stages of your activities, you may ask them to:

- write a procedure for constructing a frog-friendly garden (or whatever you choose to do);
- write a recount of particular parts of the activities they participate in;
- keep a diary describing the development of the tadpoles – including diagrams ...
- use digital photos taken throughout the activity to write a report about what they have done; or
- write and illustrate a report describing each stage of a frog's life cycle.

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