

EDUCATOR NOTES:

Creating a frog-friendly habitat: [research](#), [design](#) and [construction](#).

Learning and Engagement Approach

This sequence is comprised of 3 different activities, including:

- research: children will investigate frogs and their life cycles
- design: children will design their frog friendly habitat
- construction: children construct the habitat, based on their research and designs.

This activity is designed to engage young learners from 7-13 years.

These activities are intended to:

- raise awareness of the threats frogs are facing in the wild including disease, habitat loss, climate change and introduced species
- highlight frogs as environmental indicators
- encourage young learners to work collaboratively to improve outcomes for wildlife
- empower young learners to design, plan for and construct a frog-friendly habitat.

Safety Considerations

- Check the weather before conducting any outdoors activity. If there is going to be extreme temperatures, storms or high wind, postpone the activity.
- Ensure that everyone is wearing closed shoes, hats and sunscreen and has a water bottle handy.
- Keep any allergy plan information at hand and any associated allergy medication.
- The construction phase will need to be facilitated by an adult

Investigate ponds in other schools, especially safety management ideas that are used. Some schools install a metal grill under the water surface, while others locate the ponds in a well fenced off 'natural area'. Other ideas include making a very shallow frog bog or pond and placing it in a frequently used area where everyone can see what's going on.

Find out more about your local council's requirements before you plan to start. It would also help talking to your Department of Education Office or nearby Catholic Education Office to find out more about any specific regulations they might have. Ask questions about the size, depth and the recommended location of school ground water features.

Create a boundary around the pond with a low fence, log seating or large rocks. Talk about 'How to be safe around the pond' and publicise safety precautions with signage nearby.

Materials and References

Considerations when constructing a frog-friendly pond

- Ideally shallow with sloping sides so the frogs can easily enter and exit the pond.
- If digging your own pond, line with a tough, commercially-produced pond liner to provide structure and to prevent water loss. Wash down with clean water before using.
- If you are unable to source water from a local natural water body use tap water. The water needs to be free of chemicals. Let tap water stand for 1 week before adding living thing to the pond.
- Children’s wading pools, laundry tubs, bathtubs and styrofoam boxes can also be used to create a frog pond. If using a container, build a ramp from logs, rocks, sand or gravel to lessen the slope, so the frogs can climb in and out easily.
- Decide whether to have an ‘overflow’ pond area for excess rainwater. The overflow pond is built below the height of the main pond, and allows for water to move to the overflow pond in case of heavy rain.
- Select appropriate indigenous aquatic plants for your pond. Some might float while others might grow tall out of the water. Ask at your local indigenous plant nursery, Landcare group or council for advice.

Use the Amphibian Research Centre’s [Frogs of Australia](#) to select your location and discover detailed information on frogs found in your region.

The Australian Museum has a wealth of resources. The [Frog ID app](#) helps you identify frogs and contribute to valuable frog research and understanding. Whilst the [filtered search tool](#) in Frog ID provides detailed information on frogs in a variety of habitats and regions. The 42 [Frog fact sheets](#) give fast facts, distribution map, as well as information on behaviours and adaptations.

Site Suggestions

Explore the direction of water flows in the schoolyard or yard, preferably after it has rained. The ideal location for the pond may be where runoff naturally accumulates. Another source of water to consider is water that could be used from downpipes. Try to ensure that the pond site will not receive any excess nutrients from runoff, such as areas below sports fields.

Considerations when choosing a site for your frog-friendly habitat

- Select an area that receives part shade and part sun during the day.
- Away from existing large trees. This will avoid falling leaves entering the pond and tree root interference.
- If at home, away from the house - as frogs can be noisy!
- Choose a location where water naturally pools.
- Surrounded by vegetation, logs or rocks so the frogs can hide from predators.
- Near a compost heap or flower garden if you have one, so there are insects nearby.

Considerations when creating a frog-friendly habitat

- If your site is lacking native vegetation, plant grasses, plants, ground cover and/ or shrubs of different heights around the pond to provide hiding spots from predators and shelter from wind. Plants will also attract insects to your pond.
- Create a rock pile or log pile adjacent to the pond to provide shelter and shade.

Educator Tips

There is an assumption that young learners undertaking this activity will have some prior knowledge and understanding of the following:

- Junior Landcare
- Habitats
- Frogs
- Survival needs: food, water, shelter, air, space to raise their young
- Food webs
- Environmental indicators.

Extension Activities

Research

Extension 1

Read the Dreaming story of Tiddalik the frog (this can be found in print or online). This story has important messages about the impact of our choices. How might this be relevant today with respect to humans and the environment?

Extension 2

Use the Australian Museum's FrogID mobile app, to discover which frogs live around you, and can also be used contribute to the Australian database of frogs as citizen scientists.

Design

Extension 1

Create a prototype of the frog habitat design using modelling clay, sand, thick plastic, water and materials to create artificial plants, grasses and shrubs. This will provide a 3D model as a point of reference and a wonderful visual for the learners.

Extension 2

Refer to your local frog and habitat experts to help you understand more about the habitat and frogs in your local area. Contact your local Landcare group by searching the [National Landcare Directory](#) to help find experts who are skilled in designing natural habitats and can share valuable knowledge, such as working closely with councils.

Construction

Extension 1

Create a boundary around the pond with a low fence, log seating or large rocks. Continue to develop the habitat around your pond to encourage a range of animals including frogs to the area

Extension 2

Continue to monitor your frog pond to look for signs of habitation. Start a class journal that documents the changes observed over time and submit any sightings to Frog ID to keep a valuable record of frog populations for citizen science. Support citizen science and run special events during FrogID Week.



Community Engagement

Use [The National Landcare Directory](#) to find a community environmental 'care' group near you.

There are some great citizen science programs that aim to help frogs by documenting their presence through recording their calls. The Australian Museum's [FrogID Program](#) is one way to get involved.

Curriculum and Framework Links

SCIENCE

Year 2: [ACSSU031](#), [ACSHE035](#),

Year 3: [ACSSU044](#), [ACSHE051](#)

Year 4: [ACSHE062](#), [ACSSU073](#), [ACSSU075](#)

Year 5: [ACSSU043](#), [ACSHE083](#)

Year 6: [ACSSU094](#), [ACSHE100](#)

Year 7: [ACSSU112](#), [ACSHE120](#)

Year 8: [ACSHE135](#)

Year 9: [ACSSU176](#)

GEOGRAPHY

Year 9: [ACHGK061](#)

CRITICAL AND CREATIVE THINKING:

[Generating ideas, possibilities and actions](#)

PERSONAL AND SOCIAL CAPABILITY:

[Social awareness](#)

CROSS CURRICULUM PRIORITY

[Aboriginal and Torres Strait Islanders Histories and Cultures](#)

[Sustainability](#)

MY TIME, OUR PLACE: FRAMEWORK FOR SCHOOL AGE CARE

[Outcome 2 and 4](#)