**ACTIVITY: Create a lizard-friendly habitat**

**Activity idea**

In this activity, students have the opportunity to create a lizard-friendly habitat in the school grounds. The extension activity involves designing a suitable environment for keeping lizards in captivity.

By the end of this activity, students should be able to:

* describe the basic survival needs of lizards
* identify key components of a lizard-friendly habitat
* understand threats to lizards in New Zealand and some of the possible solutions.

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**Introduction/background**

***Lizard conservation***

Skinks and geckos are the only 2 native families of lizard found in New Zealand. Based on New Zealand’s threat classification system, almost half of our skinks and geckos are threatened or endangered. Staff members of the Department of Conservation (DOC) have a number of conservation projects focusing on species that are particularly at risk. They frequently collaborate on these projects with zoos, universities and Crown research institutes. These projects include breeding and keeping lizards in captivity, translocation, mammal control and habitat restoration.

One way for students to get involved with lizard conservation is through the creation of lizard-friendly habitats. By making your garden or an area of your school grounds lizard-friendly, you can help protect remaining populations from predators and the impacts of habitat loss. For more information about the threats to our native lizards, see the article [Threats to native reptiles and amphibians](https://www.sciencelearn.org.nz/resources/1185-threats-to-native-reptiles-and-amphibians).

***Tips for attracting lizards***

The Department of Conservation produce 3 helpful factsheets about [attracting lizards to your garden](http://www.doc.govt.nz/conservation/native-animals/reptiles-and-frogs/lizards/attracting-lizards-to-your-garden/). These include the following tips:

* Plant a variety of native plant species including ones that provide protection from predators and species that will attract insects – an important food source for lizards.
* Mulch the garden to retain moisture and help create a humid environment for lizards and insects.
* Provide predator-proof crevices (about 5–10mm wide) for lizards to hide in. For example, you could use rocks, logs or old corrugated iron.
* Once you have created your area, leave it as undisturbed as possible.

***The Wildlife Act***

All our native reptiles and amphibians are protected under the Wildlife Act 1953. It is illegal to keep any of these species in captivity without a permit from the Department of Conservation (DOC). It is also illegal to capture, collect or deliberately disturb any native lizard.

**What you need**

* Pens and paper for planning.
* A variety of plants and materials to create the habitat.

**What to do**

Before starting this activity with your students, it is recommended that you contact a lizard expert in your area to find out whether there are any lizards in your region and any special preferences they may have. Your local Department of Conservation office should be able to help.

1. It might be useful to start by watching the video clips, for example [Threats to frogs](https://www.sciencelearn.org.nz/videos/621-threats-to-frogs), [Orokonui Ecosanctuary](https://www.sciencelearn.org.nz/videos/618-orokonui-ecosanctuary) and [Captive management](https://www.sciencelearn.org.nz/videos/628-captive-management).
2. Discuss some of the techniques used in New Zealand for lizard conservation (for example, [translocation](https://www.sciencelearn.org.nz/resources/1378-translocation) and [captive management](https://www.sciencelearn.org.nz/resources/1189-captive-management-for-conservation)).
3. As a class, brainstorm a list of what students already know about skinks and geckos. Group these ideas into appropriate categories, for example, basic needs and threats.
4. Use this information to make a list of words that describe an ideal lizard habitat.
5. Explain to the students that the goal of the activity is to create an attractive and safe habitat for lizards somewhere within the school grounds. Discuss why it might be important to create such an area.
6. Make a list on the board of questions that need to be answered to plan the project. These could include location, materials needed, costs, who to contact for help and ongoing maintenance.
7. Divide the class up into small groups and allocate each group a question to research. After sufficient research time, each group should feed back to the class. Write up a project plan based on this information.
8. Create your lizard-friendly habitat!

**Discussion questions**

* Can you think of any other ways you could help protect our native lizards?
* Why do you think it is illegal to capture, collect or deliberately disturb our native lizards (unless you have a permit)?

**Extension ideas**

For many of our endangered lizards, habitat protection and restoration is not enough to ensure their survival. For a number of these species, scientists have created captive management options. Maintaining healthy captive populations is not easy, and there are a lot of factors to be considered. These include temperature, humidity, watering, diet, lighting, handling, housing and treatment of disease. The Department of Conservation publishes documents with advice on the most appropriate husbandry techniques. These documents are developed in collaboration with scientists working in this research area.

For more information read the article about [captive management](https://www.sciencelearn.org.nz/resources/1189-captive-management-for-conservation) or watch the videos [Fat skink, thin skink](https://www.sciencelearn.org.nz/videos/702-fat-skink-thin-skink) and [Captive management](https://www.sciencelearn.org.nz/videos/628-captive-management).

Individually or in small groups, have students design a habitat suitable for keeping lizards in captivity. Students may wish to make a 3D model of their habitat or design it on a computer. The students may wish to make their habitat, but they should be aware that obtaining a permit to keep lizards in captivity is very difficult. Permits are commonly issued to zoos and other conservation facilities.