**ACTIVITY: Similarities and differences: Skinks and geckos**

**Activity idea**

In this activity, students use an interactive or paper-based Venn diagram to illustrate the key similarities and differences between skinks and geckos.

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

* describe the key similarities and differences between skinks and geckos
* understand how to use a Venn diagram to graphically organise information.

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**Introduction/background**

Skinks and geckos are the only 2 native families of lizard found in New Zealand. They are vertebrates and belong to the class Reptilia. (Note that tuatara are not lizards.)

Our native skinks and geckos share a number of common characteristics. However, there are some significant differences between them.

The following table provides a summary of the similarities and differences. (See the article [Native skinks and geckos](https://www.sciencelearn.org.nz/resources/1381-native-skinks-and-geckos) for a detailed table describing the similarities and differences between the 2 families.)

|  |  |  |
| --- | --- | --- |
| **Skinks** | **Both skinks and geckos** | **Geckos** |
| * Narrow head | * Can regrow a lost tail | * Broad neck and head |
| * Blink to clean eyes | * Good sense of smell, hearing and sight | * Lick clear eyelids to keep them clean |
| * Tight and shiny skin | * Give birth to live young | * Loose and velvety skin |
| * Rub skin off in patches | * Eat insects | * Shed their skin |
|  | * Eat remains of dead animals | * Excellent climbers |
|  | * Long lived |  |
|  | * Threatened by introduced mammals |  |

***Venn diagrams***

Venn diagrams have been used for over a hundred years as a visual way to show the similarities and differences between 2 or more things (for example, concepts or products). In a Venn diagram, 2 or more circles overlap – features common to only one thing appear in their respective circles and features common to both appear in the overlapping area of the circles. For example, skinks have tight and shiny skin so this feature belongs in the skink circle, but both skinks and geckos can regrow a lost tail, so this feature belongs in the overlapping area.

**What you need**

* Access to the [interactive Venn](https://www.sciencelearn.org.nz/resources/1401-similarities-and-differences-skinks-and-geckos#Venn_diagram) [diagram](https://www.sciencelearn.org.nz/drag_and_drops/3-skinks-and-geckos-venn-diagram) or the printed resources for the paper-based version.
* Printed copies of the article [Native skinks and geckos](https://www.sciencelearn.org.nz/resources/1381-native-skinks-and-geckos) geckos (optional).

**What to do**

1. Have students explore the [Unique New Zealand](https://www.sciencelearn.org.nz/image_maps/59-unique-new-zealand-reptiles-and-amphibian) interactive and discuss their observations about skinks and geckos. This could also be explored as a class using an interactive whiteboard or data projector. It may be useful to brainstorm a list of what the students already know about skinks and geckos. Additional information can be found in the article [Native skinks and geckos](https://www.sciencelearn.org.nz/resources/1381-native-skinks-and-geckos).
2. Draw a sample Venn diagram on the board and discuss with the students what they can be used to show. It might be useful to model how they work with another example, such as cats and dogs.
3. Allow the students sufficient time to complete the [interactive Venn](https://www.sciencelearn.org.nz/resources/1401-similarities-and-differences-skinks-and-geckos#Venn_diagram) [diagram](https://www.sciencelearn.org.nz/drag_and_drops/3-skinks-and-geckos-venn-diagram), either individually or in small groups on a computer. This can also be a whole-class activity via an interactive whiteboard as a discussion starter and can be used as a formative or summative assessment. There is a paper-based version to use and adapt to suit your students requirements. Provide the list of features either as a handout or up on the board and ask students to complete the Venn diagram worksheet.
4. Give individuals or groups the opportunity to feed back. Encourage discussion about points that may differ and give students opportunities to provide evidence for their decisions. Refer to the article [Native skinks and geckos](https://www.sciencelearn.org.nz/resources/1381-native-skinks-and-geckos) or [background information](#bookmark=id.gjdgxs). Where possible, students could use the internet or other sources to check any features they are unsure about.

**Discussion questions**

* Based on what you have learnt in this activity, what are the 2 main features you would look for to help you decide if a lizard is a skink or a gecko?

**Extension ideas**

* Show students the images on [Skink or gecko? 1](#bookmark=id.4d34og8) and ask them to identify which is the skink and which is the gecko. (The top image is a common gecko, the bottom image is a McCann’s skink.) Discuss. What criteria did they use to make their decision?
* Repeat with [Skink or gecko? 2](#bookmark=id.2s8eyo1). (The top image is an Otago skink, the bottom image is a Jewelled green gecko.)

**List of features**

|  |  |
| --- | --- |
| Narrow head | Threatened by introduced mammals |
| Good sense of smell, hearing and sight | Rub skin off in patches |
| Long lived | Excellent climbers |
| Shed their skin | Loose and velvety skin |
| Tight and shiny skin | Can regrow a lost tail |
| Eat insects | Eat remains of dead animals |
| Give birth to live young | Lick clear eyelids to keep them clean |
| Broad neck and head | Blink to clean eyes |

**Venn diagram worksheet**

