**ACTIVITY: Identifying bugs**

**Activity idea**

In this activity, students use the web resource ‘What is this bug?’ from Landcare Research to identify an insect. This easy-to-use web page allows students to learn more about insects.

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

* navigate around the Landcare Research ‘What is this bug’ site to identify various insects
* gain confidence in their observation skills as they describe an insect’s identifiable features
* better appreciate the variety of insects in their local area.

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**Introduction/background**

The scientists at Landcare Research have put together a website ‘What is this bug?’ that allows you to identify insects that you find out in the garden or on field trips. Students can use this web-based resource to identify living insects or pictures of insects.

Remember! Insects should be kept alive, and you should release them back into the area where you found them.

**What you need**

* Access to the ‘What is this bug?’ website ([www.landcareresearch.co.nz/research/biosystematics/invertebrates/invertid/](http://www.landcareresearch.co.nz/research/biosystematics/invertebrates/invertid/))
* Access to the video [Collecting moths](https://www.sciencelearn.org.nz/videos/185-collecting-moths)
* A variety of insects – these can be alive, preserved or photos/images
* If going on a field trip to collect insects, suitable insect containers that are big enough to contain the insect comfortably and allow it to breathe but not allow the insect to escape – film canisters, small plastic bottles, plastic jars or similar with holes in the lid are ideal
* A camera if you want to capture and release while on your field trip

**What to do**

1. Get some insects to identify. There are a variety of ways you could start this activity, for example, you could begin by:
* watching the video [Collecting moths](https://www.sciencelearn.org.nz/videos/185-collecting-moths) and then going on a field trip to collect moths
* collecting insects from your back garden
* organising a ‘Bring a Bug Day’ for the class
* borrowing some preserved insect specimens from a local museum or university
* organising a field trip around the school garden to collect insects.

If you can’t find any insects or don’t want insects in the classroom, use photos of insects instead.

1. Make sure each student has an insect to identify and have them use the ‘What bug is this?’ website to see if you can find out its name ([www.landcareresearch.co.nz/research/biosystematics/invertebrates/invertid/](http://www.landcareresearch.co.nz/research/biosystematics/invertebrates/invertid/)).
2. Discuss the students’ findings.
3. If students have collected live insects for this study, remember to release them back where they were found.

**Extension ideas**

As an additional activity, you may like to explore the insect biodiversity in your local area. These two articles are good background reading for you or your students – [Biodiversity](https://www.sciencelearn.org.nz/resources/1454-biodiversity) and [New Zealand’s unique ecology](https://www.sciencelearn.org.nz/resources/1440-new-zealand-s-unique-ecology).

Choose several areas in the school garden/local environment and ask students to record whatever insects they can find and explore these questions:

* How many and what sort of insects live in the various areas?
* Are there areas that have no insects or lots of insects?
* What spaces have the most variety of insect species?

Ask students to record their results as an insect count in tables or by using photos.

This study works best if it can be repeated in different seasons or year on year in the same areas. Does the biodiversity change over time?

You may like to combine this activity with other activities that investigate biodiversity, such as [Biodiversity battleships](https://www.sciencelearn.org.nz/resources/1463-biodiversity-battleships) or [Threats to biodiversity](https://www.sciencelearn.org.nz/resources/1465-threats-to-biodiversity).