

Lesson: Bag it!

Phase of learning

Years 3 - 4, Years 5 - 6, Years 7 - 8, Years 9 - 10

WA Curriculum

K-10 English, K-10 Mathematics, K-10 Science

Region

North Coast, Gascoyne Coast, West Coast, South Coast, Indian Ocean Territories

Summary

Students will conduct a marine debris survey in the field.

Outcomes

- Students will identify marine debris as a type of pollution.
- Students will investigate marine debris at a local beach.
- Students will analyse marine debris data and suggest possible sources.

Duration

2 hours

Preparation

This lesson outlines the procedure in conducting a marine debris collection and analysis.

Ideally, an excursion to a local beach for a marine debris collection is the best means to study marine debris. If an excursion is not possible, a rubbish collection could take place within the school grounds or at other high conservation areas.

Several opportunities exist to be involved in large-scale coordinated beach cleanups throughout Western Australia and Australia. Visit the [Tangaroa Blue Foundation](#) and [Cleanup Australia](#) websites for further details.

Follow excursion and risk assessment policy as directed by your school. Instruct and reinforce with students not to pick up sharp and unknown objects, inform an adult instead.

A detailed survey or a general cleanup can be conducted. Two datasheets (Student Worksheets: [Marine debris data survey \(basic\)](#) and [Marine debris data survey \(advanced\)](#)) for marine debris surveys have been prepared by the Tangaroa Blue Foundation to suit your level of detail and

involvement. Students should become familiar with the terms and use of these worksheets prior to the excursion. You will require one worksheet for your class or for each group in your class, depending on how you determine students should work.

A trial survey could be conducted within the school grounds, linked in with the Waste Wise school program.

This lesson was developed with support of the Tangaroa Blue Foundation. Consider communicating your findings to Tangaroa Blue Foundation via their website.

The Lesson: [Action Plan](#), allows students to further analyse the data they have collected during their marine debris survey.

Recommended Resources

Student Worksheet: [Marine debris data survey \(basic\)](#)

Student Worksheet: [Marine debris data survey \(advanced\)](#)

Steps

1. Ask students whose responsibility it is to manage rubbish on beaches?
2. Consider printing some copies of the [Marine Debris Identification Manual](#) (Tangaroa Blue Ocean Care Society) if you wish to perform a detailed marine debris survey.
3. Choose a location where students might visit.
4. Provide students with a detailed briefing on safety and confines of the activity.
5. Split students into smaller groups led by an adult or teacher.
6. Spread out along the beach within an area prescribed in the briefing.
7. Collect a range of debris and place in rubbish bags, buckets or containers provided. Use cameras to record the events of the excursion and marine debris items collected.
8. Look closely for smaller items such as plastic fragment and plastic resin pellets that may be present along tide marks. Place smaller items into zip lock bags as you go.
9. After the designated time, return to the meeting location. If possible, weigh bags of marine debris collected by each group to calculate a cumulative total. A weigh scale used to measure the weight of fish works well in this situation.
10. Sort your debris samples at the beach or back at school. Use a tarpaulin or grassed area into groups of similar things (such as fishing line, pellets, and plastic bottles).
11. On your relevant Student Worksheet, write in the name and quantity of each group of objects, as well as making notes on the region, season, beach features and weather conditions.
12. Reflect on the success of the marine debris survey in terms of what was collected,

amounts, percentage of area covered and items which may have been overlooked.
13. Recycle or correctly dispose of marine debris collected.

Related resources

[Fact Sheet: Marine Debris](#)

[Lesson: Action plan](#)

[Student Worksheet: Marine Debris Data Survey Sheet \(advanced/community\)](#)

[Student Worksheet: Marine Debris Data Survey Sheet \(basic\)](#)

Linked External Resources

[Waste Wise - waste audits](#)

Keywords

biodegradable, flotsam, jetsam, litter, marine debris, plastic, pollution, polymer, recycle, reuse, rubbish, waste