Activity overview

#### In-class activity - Years 2 - 4

# Plastic waste: where does it come from?

In this activity, students will conduct an investigation of school litter, to determine types of litter, the source of litter, and identify possible solutions to the use of single use plastic items, such as single use plastic water bottles.

## Curriculum links

### Year 2 – Science

* + People use science in their daily lives, including when caring for their environment and living things (ACSHE022) & (ACSHE035)

### Year 2 – Mathematics

* + Collect, check and classify data (ACMSP049)

### Year 4 – Science

* + Natural and processed materials have a range of physical properties that can influence their use (ACSSU074)
  + Science knowledge helps people to understand the effect of their actions (ACSHE051) & (ACSHE062)

### Year 4 – HASS

* The use and management of natural resources and waste, and the different views on how to do this sustainably (ACHASSK090)

**Year 4 - Mathematics**

* Select and trail methods for data collection, including survey questions and recording sheets (ACMSP095)

## Time required

Class activity 30 minutes

Clean-up 15 minutes

## Things you will need

* Unitywater videos with Mark Visser and Tim Silverwood at [www.unitywater.com/plasticpollution](http://www.unitywater.com/plasticpollution)
* Tongs
* Buckets
* ‘School litter’ data sheet (Activity sheet included below).

## Activity outline

* Unitywater videos with Mark Visser and Tim Silverwood at [www.unitywater.com/plasticpollution](http://www.unitywater.com/plasticpollution)
* Discuss issues caused by plastic pollution, recording student responses under the headings of people, place and animals. Discuss the types of plastic items that students think they might find around the school grounds as litter. Question students on what the sources of these litter items are – where have they come from.
* Describe and explain the litter survey task to students, including the defined areas to be surveyed, how litter is to be collected, and how students will measure and record litter items collected from around the school; i.e. tallying in column, or put in a bucket / bag and record volume at the end.
* Break the class into small groups. Provide each group with a clearly defined location to walk and survey (maybe using a map of the school grounds), set of tongs, bucket and recording sheet. Provide safety instruction.
* Students walk through their designated area locating litter items and recording type of litter on recording sheet. If safe to do so pick up litter. For multiples of the same litter item, student can record tally marks in the ‘amount’ column. Alternatively, all litter items can be brought back to the classroom and sorted into types, measured for volume or weight, and recorded in the ‘amount’ column.
* On return to class collate data, graph results and determine common litter items, litter hot spots and likely sources.
* Focusing on the source of common litter items discuss how the litter could be prevented. Discuss how single use plastic water bottles make up a high proportion of litter items in Australia and how using reusable items such as reusable water bottles can help to prevent plastic pollution.
* Students draw or write about a reusable item that could be used to replace a single use plastic item found in the school ground litter or lunch box investigation.

## Variation / extension:

* Instead of conducting a litter survey of the school grounds students can investigate their lunch box contents examining the types of resulting waste and how waste items could be avoided.
* Students develop survey questions for use at home to determine the approximate quantity of single use plastic items such as plastic water bottles that are used on either a daily or weekly basis.



## Activity sheet

**School litter data sheet**

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Location | Type of litter | Amount of litter  (number of pieces / approximate volume) |
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