# Ecomaths – Recycling

**ABC ME screening details: Monday** 27 April, 2020 at 11:45am

This episode can also be viewed on [ABC iView](https://iview.abc.net.au/show/ecomaths)

**Key learning areas:** mathematics

**Level:** upper primary

**About:** Stefan visits a vast recycling plant to explore how 2-D and 3-D shapes are used to sort and re-use rubbish, and visits a school that uses recycled objects in many different ways.

## Before the episode

1. Write and draw items around your house that can be recycled.

## After the episode

1. What were some of the items you saw being recycled in this episode? Add them to your brainstorm above if you didn’t include them.
2. Why do you think recycling and re-using materials is important?
3. What three-dimensional objects can you find around your house? List in the boxes below. The objects do not need to be recyclable.

| a cube | Cube | a cylinder | Cylinder | A rectangular prism | Rectangular prism |
| --- | --- | --- | --- | --- | --- |
|  |  |  |
| A sphere | Sphere | A cone | Cone | A square-based pyramid | Square-based pyramid |
|  |  |  |

1. Was there a three-dimensional object that you found more of than others? Why do you think this three-dimensional object is more common?

**Follow-up activity:** Can you think of any ways that you can use recycled materials to make something useful? You might make a cloche (seed cover), a bird feeder or a soil scoop. What other ideas do you have? **Note:** adult supervision is required when using scissors to cut plastic.

# NSW teacher notes

This is an optional standalone resource that could supplement student learning. The activities align with syllabus outcomes across stages and can be modified to meet the needs of your students. Students can complete the activities while learning at home and in the classroom. All activities can be completed without access to the internet or a device. Teachers could collect student work to offer feedback and as evidence of learning.

## Learning intentions

* To identify and sketch three-dimensional objects

## NSW Mathematics K-10 Syllabus outcomes

|  |  |  |
| --- | --- | --- |
|  | Stage 2 | Stage 3 |
| Measurement and Geometry | makes, compares, sketches and names three-dimensional objects, including prisms, pyramids, cylinders, cones and spheres, and describes their features (MA2-14MG) | identifies three-dimensional objects, including prisms and pyramids, on the basis of their properties, and visualises, sketches and constructs them given drawings of different views (MA3-14MG) |

[NSW Mathematics K-10 Syllabus](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/mathematics/mathematics-k-10) © 2012 NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. See the [NESA website](https://educationstandards.nsw.edu.au/wps/portal/nesa/mini-footer/copyright) for additional copyright information.