



# BEYOND THE BIN - TEACHER'S NOTES

## KEY MESSAGES

Students can adopt behaviours and practices which protect the environment by using waste minimisation strategies such as the 7 R's – reduce, return, re-use, repair, refill, refuse & rot.

## CURRICULUM LINKS- NSW

- **This program explicitly teaches GEOGRAPHY Stage 2**

### A student:

**The Earth's Environment:** Protection of Environments

**GE2-2** describes the ways people, places and environments interact.

Students investigate sustainable practices that protect environments e.g. discussion of ways waste can be managed sustainably.

**GE2-4** acquires and communicates geographical information using geographical tools for inquiry.

### INQUIRY QUESTION/S

- How can people use places and environments more sustainably?

- **This program supports parts of the SCIENCE Stage 2**

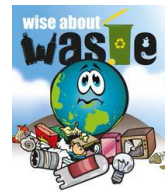
### A student:

**ST2-2VA** demonstrates a willingness to engage responsibly with local, national and global issues relevant to their lives, and to shaping sustainable futures.

## CROSS CURRICULUM PRIORITIES

- 1) Sustainability
- 2) Civics and Citizenship





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## BACKGROUND INFORMATION

Many people are familiar with the 3R's philosophy for addressing waste management (Reduce, Reuse, and Recycle). In the hierarchy of waste management, recycling falls below other waste minimisation strategies due to the amount of energy required to remanufacture new products (often this includes significant transportation of resources which uses many resources).

The 7R's elaborate on the 3R's philosophy as a means of outlining practices for more sustainable consumption of products and avoidance of waste. This forms part of a movement towards *Zero Waste*.

*Zero Waste* is an approach to waste management that focuses on waste prevention and consumer choices. It aims to reduce the amount of rubbish going to landfill.

There are two main environmental benefits for *Zero Waste* practices:

- 1) Decreasing toxins polluting ecosystems through waste breakdown.
- 2) Reducing the amount of resources being taken from the earth to create the products in the first place.

The 7R's:

- 1) **Reduce** – use less
- 2) **Return** – producers should take back what they sell
- 3) **Re-use** – use it again
- 4) **Repair** – fix and mend rather than replace
- 5) **Refill** – drink containers can be refilled
- 6) **Rot** - compost
- 7) **Refuse** – say 'no' to packaging and single use disposable items e.g. plastic straws, plastic bags.





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### LEARNING ACTIVITIES

#### 1) **Review students' prior knowledge about the 3R's.**

Have the students learnt about the 3R's in Stage 1? What are the 3R's? Using the Think-Pair-Share strategy, students can tell their partner about some examples of how they use them at home?

Today the students will be learning how they can do something even better for the environment through the 7R's to reduce waste in the first place.

#### 2) **7R's Puzzle.**

Each student is given a puzzle piece. They are to go around the room and find the students with the matching pieces and collate their puzzle. When they have assembled their puzzle, students discuss how their 'R' term would help to reduce waste? How could it be implemented?

**Focus question: What is an example of your "R"?**

#### 3) **Zero Waste Sort**

The teacher spreads out the Zero Waste mat on the ground. The clean sample waste is piled into the centre of the mat. Students are invited to come and take a piece of rubbish from the centre and sit down. They are given some thinking time to decide which of the 7R's could apply to their piece of waste. Students are then invited to place their waste on the appropriate section and explain to the class why they are putting their item there.

There may be many different answers possible for each item. The justification for why the student is placing the item in that section is the key. The aim is for no waste left in the centre of the mat. e.g. plastic straw – REFUSE – decline the offer of single use plastics; Food waste – ROT– break down and return to the earth providing nutrients.

- Write or draw ways your family can follow the 7Rs.
- Complete page 6 in the Wise about Waste booklet.





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## TO SIMPLIFY

- 1) Students complete the 7R's Puzzle.
- 2) Discuss the 7R's.
- 3) Complete activity on Page 6 of 'Wise About Waste' booklet.

## GOING FURTHER

- Brainstorm ways of getting the message about minimising waste and educating others about the 7Rs beyond the classroom. Develop an action plan to make it happen.

## SOURCES

- 1) <http://www.treehugger.com/corporate-responsibility/its-america-recycles-day-dont-forget-other-7-rs-and-watch-rethinking-recycling-video.html>.

## RESOURCES

- 1) The 7 R's: reduce, return, re-use, repair, refill, refuse & rot.
- 2) 7R's Jigsaw pieces (28 pieces total)
- 3) Zero Waste Mat
- 4) Clean Sample Waste (have multiples of some items so enough for every child in class) eg. disposable cutlery, plastic straw, mobile phone, clothing or shoes that need fixing/mending, piece of fruit or vegetable, lunch box, water bottle, modern cloth nappy, disposable nappy, plastic shopping bag, cheese and cracker snack, disposable plate, disposable cup, disposable coffee cup, re-usable coffee cup, metal teaspoon, multi-utensil (fork, spoon, knife in one), waxed reusable lunch-wrap, cling wrap, picture of a Dell computer (returnable), a Boomerang Bag and a stainless steel drinking straw.

