Beyond the Bin

FOR YEAR 5-6

Summary & Learning Intentions

This lesson introduces Year 5–6 students to the journey of household waste and recycling, encouraging them to explore what belongs in each kerbside bin and why using our bins correctly matters. Through discussion, an interactive activity and a short reflection task, students learn that our everyday choices about waste have environmental and social impacts. The learning intentions are for students to:

- Recognise the purpose of different bins
- Identify common recyclable, compostable and landfill items
- Understand that some materials can be recycled or composted while others cannot
- Reflect on how responsible waste behaviours contribute to caring for the environment and community

Content information

Waste isn't just rubbish – it is a resource which holds value. Materials such as glass, plastic, paper, metal and even your food scraps can all be recycled into new products if recovered.

By recycling, we are keeping resources in circulation for longer – reducing our reliance on natural resources, saving energy and water and reducing our greenhouse gas emissions and pollution. The recycling and repair industry also create jobs – supporting employment in our local community.

If we don't manage our resources responsibly it has negative consequences for our communities and our environment by filling up our landfills, generating harmful air and soil pollution, and costing our community money via the state Waste Levy.

By reducing, reusing and recycling (including composting), we are minimising the impact that our waste has on our environment, and supporting our communities through the repair, reuse and recycling industries.

Extension activities

Free school incursions with Bin Thinking and KESAB

Wipe Out Waste program

KESAB In-school support

Cool.org resources – National Recycling Week

By diverting organic waste and recyclable items from landfill, South Australians are...

Supporting over
1,700
local jobs

Preventing
1.67
million tonnes
of greenhouse gases, which is the...

Equivalent to removing over
334,000
cars from the road

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LESSON PLAN

Lesson timeframe

Part 1 – Pre-activity discussion	10-15 minutes
Part 2 – 'Beyond the Bin' interactive	20 minutes
Part 3 – Group reflection	10 minutes
Part 4 – Post-activity worksheet	20 minutes

FOGO
Food Organics & Garden Organics
(also known as the green bin or organics bin)

Part 1 - Pre-activity discussion

Begin the lesson with a class discussion linking in sustainability, economics and science. Write a summary of ideas on the whiteboard. These do not need to be correct but are intended to prompt discussion and critical thinking.

- Why is it important to separate our waste into different bins?
  - Environmental reasons? (prompt – what happens to resources when we do/don't recycle them?)
  - Social reasons? (prompt – do you think recycling, landfill or FOGO generates the most local jobs?)
- Where does the material you put into your landfill, FOGO and recycling bins go after the truck collects them?
- What do you think happens if we put the wrong item in a recycling, FOGO or landfill bin?
- Which system (landfill, recycling, FOGO) creates the most jobs? Why?

Part 2 - 'Beyond the Bin' interactive

Students to play the interactive, exploring the journey of each bin – red, yellow and green. They learn what happens to the material they put in these bins, and why certain items cannot be placed in the recycling, FOGO or even landfill bin.

Part 3 - Group reflection

As a class, look back at the answers to Part 1 on the whiteboard. Ask students:

- Did we change our ideas after learning more?
- Which bin do you think is most important for helping our community and environment? Why?
- Did anything you learnt in the Beyond the Bin game surprise you?

Part 4 - Post-activity worksheet

Students to complete the post-activity worksheet.

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STUDENT WORKSHEET

Name: _____ **Class:** _____

1. A 'raw material' is defined as 'the basic physical substance from which a product is made'.
   A MRF (Material Recovery Facility) sorts different items into their material types.
   List **four different types** of raw materials that can be recycled in the yellow-lid recycling bin?
   Hint: *the raw material used to make paper is timber (trees).*

1. _____ 3. _____

2. _____ 4. _____

2. List four 'tricky items' which cannot be placed into any kerbside bin (red, yellow or green) and need to be taken somewhere special. Where should you take them?

1. Item _____ Take item to _____
2. Item _____ Take item to _____
3. Item _____ Take item to _____
4. Item _____ Take item to _____

3. Pick one material type from Question 1.

- Where does this material/resource originally come from?

1. Item _____ Comes from _____

- Is it a renewable or non-renewable (finite) resource? (tick your choice)

  ☐ Renewable ☐ Non-renewable (finite)

- If we don't recycle an item made from this material when we are done with it, what impact does this have on our environment? ***Hint:*** *where do we get this raw material from?*

_____

_____

_____

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STUDENT WORKSHEET

4. Compare composting food scraps to with sending them to landfill.

- What changes happen to these food scraps in each case?

- Which process is **better for the environment**, and why?

5. Food is more than just something we eat – it uses resources. When **food is thrown away**, what resources are wasted? Tick all that apply:

- ☐ Natural resources (like water, soil, energy)
- ☐ Human resources (farmers, transport workers, cooks)
- ☐ Capital resources (trucks, machines, packaging factories)

6. Looking around the classroom and find three common items. For each, answer:

- What materials is it made from?
- Can it be **recycled, composted**, or does it go to **landfill**?
- What property of the material makes it recyclable or not?

1.

2.

3.

7. Write down one thing you can do at home and on thing you can do at school to reduce waste.

8. Why is it important to follow the **4R's (refuse, reuse, reduce and recycle)**?

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CURRICULUM LINKS

Cross-curriculum priority: Sustainability

SS2, SS3, SW1, SD1, SD2, SD3 – systems thinking, world views, and designing sustainable futures
Students recognise how their choices and actions about waste affect their environment and future, and how they can positively contribute to their community and environment through making responsible choices.

General Capabilities

- **Critical and Creative Thinking:** sorting items and explaining choices.
- **Ethical Understanding:** making responsible decisions about waste.
- **Literacy & Numeracy:** class discussions, simple categorising, drawing/writing items for bins.

Subject	Curriculum Links	Content Elaboration
HASS	**AC9HS5K08** types of resources, including natural, human and capital, and how they satisfy needs and wants	During the interactive, students identify and understand different resources, and how these resources are wasted if disposed of incorrectly.
	AC9HS6K08 influences on consumer choices and strategies that can be used to help make informed personal choices.	Students consider if their actions affect the environment; for example, “Does choosing recycled/ recyclable products rather than non-recycled/ recyclable products affect the environment?”
Science	**AC9S5H02** investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions	Students learn about now IWS uses scientific knowledge to reduce the environmental impacts of landfilling organic material.
	AC9S6U04 compare reversible changes, including dissolving and changes of state, and irreversible changes, including cooking and rusting that produce new substances	Students consider the difference between organic material decomposing in different environments, and the properties of materials which make them recyclable.
Design and Technologies	**AC9TDE6K05** explain how characteristics and properties of materials, systems, components, tools and equipment affect their use	Students identify, based on material composition and form, whether an item can be recycled or composted at end-of-life.