

Overview of Learning Activity and Teaching Strategies

Learning objective/s

In this whole-class activity, students work together to identify where their waste comes from. They decide if various classroom items are able to be reused, recycled, composted or if it is waste. They take responsibility for the waste generated by their classroom.

Resources

Video - What can you recycle? - <https://www.youtube.com/watch?v=0yG34Y5xhU>

Video - What is waste management? - https://www.youtube.com/watch?v=7uJVYrhbZ6k&list=PLOHh_W_iiXz98mbDeDkIiToRtf0tIvD0v&index=12

Video - How to generate less waste - <https://www.youtube.com/watch?v=47rc-dgVMpY>

Website - Recycle Mate - <https://sitelet.recyclemate.com.au/sitelet/23>

Student and classroom organisation

1. In prior lesson, students would have been taught the terms for different types of waste. Begin this activity by formatively assessing their prior knowledge and familiarise them with the following terms (waste, recycle, reuse, composting material, rubbish, litter) using examples of items that might be found in their lunchbox. These terms are displayed on an anchor chart in the classroom.
2. Once students are familiar with terminology, watch the videos, **What can you recycle** and **What is waste management**, supplied by the Toowoomba Region. Following the video, ask students to reflect on what happens after material has been recycled and sorted.
3. Choose several waste items to pass around for students to touch and see. Brainstorm as a class how they believe the items should be categorised, recycled, composted, reused or if it needs to be disposed, and discuss the reasoning for their choices. Use the video, **How to generate less waste**, supplied by the Toowoomba Region to initiate questioning and stimulate discussion. Prompt students' critical and creative thinking, by offering examples of how items can be reused, for e.g. a small plastic bottle could be used as a pencil holder.
4. Investigate the class's own waste management. Ask students: Does the classroom have a rubbish and recycling bin? What happens to old paper? Is there a better way to reuse/recycle paper? Does the school have a compost garden? Does the school have recycling container bins? What do you think we can do in our classroom to improve our waste management? Brainstorm ideas as a class.
5. Investigate the waste in the classroom and ask students if they believe they have successfully put materials into the correct bins. Introduce the website, **Recycle Mate**, an online recycling guide for the Toowoomba Region. As a whole-class, interact with the resource on the board, to inquire if the class have disposed of items correctly and sustainably.
6. Once students are confident, allocate pairs to collaboratively investigate five materials of their own, using an iPad to access the Recycle Mate website. Partners work together to categorise the waste, determining if items can be sustainably reused, rather than disposed of.
7. As a class, reflect on this activity. What can the grade one class do to look after their classroom? Collaborate to create a 'year 1 waste management plan' for the future. Discuss that everyone is responsible for upkeeping this positive action, to maintain a clean classroom and a sustainable school environment.

Pedagogical Approach/s

Outcomes-based Learning:

- Learning outcome framed off the Australian Curriculum.
- Curriculum outcome: AC9HS1K04, build upon prior knowledge.
- Explicit connection to Curriculum GC: Critical and Creative Thinking, and CCP: Sustainability.

Place-based Learning:

- Active project-based learning, engaging directly with local systems and resources created by the Toowoomba Regional Council.
- Active problem-based learning, engaging with the local issue of waste management in the Toowoomba Region.
- A focus on connecting with the natural environment of the school/classroom, familiar to students.
- Embraces service and active citizenship in the Toowoomba community.

Participatory Learning:

- Social dynamics of the activity were predominantly whole-class collaborating to understand the new topic, with the opportunity to discuss and support one another to face the issue of waste management in their classroom.
- Student accountability is increased, further developing their understanding of the topic by working in pairs.
- Engaging students in group work allowed for problem-solving, debate, analysis, teamwork and reflection, developing critical thinking and leadership skills.

Scaffolded Learning:

- Manipulatives, videos and digital resources used to visualise the different types of waste and waste terminology.
- Material Language used by teacher and students to form a familiarity with content.

(Allen & White, 2021; Sandri, 2020).