

PROJECT GO – LESSON PLAN

Topic: Waste Systems & Sustainability Vocabulary (Years 7–9)



Understanding the key words and concepts behind waste systems and garden organics

Overview

Project GO is a sustainability education program that helps students understand waste, recycling, and caring for the environment through storytelling, characters, and real-world problem solving.

This lesson focuses on helping students understand the key **sustainability and waste-system** concepts that support **recycling, composting, and garden organics** management. Through discussion, vocabulary exploration, and a problem-solving crossword activity, students investigate important environmental concepts including decomposition, microorganisms, nutrient cycles, sustainability, pollution, landfill, and recycling.

This lesson is designed to work **directly with the Project GO 7–9 Worksheet 1** and can be delivered as a stand-alone classroom activity or alongside other Project GO digital resources.

Objective

This lesson aims to help students:

- Understand important **sustainability and waste-system** vocabulary
- Recognise how waste systems connect to **environmental outcomes**
- Explore how **garden organics, recycling, and composting** reduce landfill and pollution
- Apply sustainability concepts through literacy and problem-solving activities

By completing a sustainability-themed crossword activity, students reinforce their understanding of **how waste systems work** and why environmentally responsible actions matter.

Materials

- Whiteboard or interactive screen
- Whiteboard markers
- Pens or pencils
- **PROJECT GO 7–9 Worksheet 1: GO Crossword (one per student)**
- Optional: internet-enabled devices to access the “Words to Know” section on Project GO Website

Lesson plan

1. Review & Introduction (10 minutes)

Begin with a class discussion reviewing key ideas from Project GO.

Write the following words on the board:

- Sustainability
- Recycling
- Compost
- Pollution
- Landfill
- Decomposition

Ask students:

- What do these words mean?
- How are these ideas connected to **waste and the environment**?
- Why is understanding these words important?

Introduce the idea that:

- **Waste systems** involve many connected environmental processes
- **Garden organics and recycling** help reduce waste going to landfill
- Sustainability is about **protecting resources and the environment** for the future
- Understanding environmental vocabulary helps people make informed decisions

2. Explore - Understanding Waste Systems (10 minutes)

Review some of the sustainability concepts and clues from the worksheet together.

Discuss:

- What are **microorganisms** and why are they important?
- What happens during **decomposition**?
- Why is pollution harmful to the environment?
- What is a **nutrient cycle**?
- How does recycling **reduce waste**?

Reinforce that:

- Composting and decomposition are natural processes
- Garden organics can become useful compost instead of landfill waste
- Recycling and sustainability help protect natural resources
- Environmental systems are connected

Explain that students are now going to apply these ideas by solving a Project GO sustainability crossword challenge.

3. Activity – GO Crossword (30–60 minutes)

Distribute the Project GO Years 7–9 Worksheet 1 to each student.

Explain the task step-by-step:

- Read each clue carefully
- Identify the sustainability word that matches the clue
- Complete the crossword puzzle using the correct vocabulary words
- Use the “**Words to Know**” section on the Project GO website if needed

Encourage students to:

- Think carefully about the meaning of each clue
- Use intersecting words to help solve difficult answers
- Discuss unfamiliar concepts with classmates if appropriate

Support students by:

- Prompting students to explain their thinking
- Assisting with scientific or environmental terminology
- Encouraging students to connect the words to real-world environmental systems

Once completed:

- Review answers together as a class
- Discuss how the words connect to recycling, garden organics, and sustainability

Reinforce the key message:

Understanding sustainability concepts helps us make better environmental choices and reduce waste going to landfill.

4. Reflect & Connect (10 minutes)

Discuss as a class:

- Which sustainability concept was the most familiar?
- Which word or clue was the most challenging?
- How do these concepts connect to actions people can take at home or school?

Optional extension:

- Ask students to write a short explanation of one sustainability concept in their own words
- Invite students to identify one action they could take to reduce waste or support sustainability

Assessment Opportunities

Teachers may assess students on:

- Understanding of sustainability vocabulary and environmental concepts
- Ability to apply concepts to waste systems and environmental issues
- Problem-solving and literacy skills demonstrated through the crossword activity
- Participation in discussion and reflection activities

Assessment may be informal, peer-based, or teacher-led.

Australian Curriculum (ACiQ v9) Connections

Science

- Science understanding – Biological sciences
- Science as a human endeavour – Use and influence of science

HASS

- Geography
- Civics and Citizenship

English

- Literacy – Interpreting and understanding texts

General Capabilities

- Literacy
- Ethical Understanding
- Critical and Creative Thinking
- Personal and Social Capability

Cross-Curriculum Priority

- Sustainability

Where to Find More Additional Project GO digital stories, activities, and resources are available for students, teachers, and families to continue learning at:

PROJECT-GO.COM.AU