

# Lesson Plan

## Comparing Decomposition of Plastic versus Paper Wrapping



**Year Level: 3-6**  
**Duration: 1 hour**  
**(initial setup) + 10 minutes**  
**for weekly observations**  
**over 12 weeks**

### Resources Needed

- 1 piece of plastic copy paper wrapping
- 1 piece of paper copy paper wrapping
- 2 shovels or trowels
- 2 small flags or markers
- Notebook and pencils for observation
- Camera/iPad/Tablet/Phone (optional for photographic evidence)
- Gloves, safety glasses and masks for safe handling of soil
- Optional (classroom desktop composting unit)

### Curriculum Objective

**Science – Nature of Science:**  
**Investigating in Science (Level 2-3)**

Students will ask questions, find evidence, explore simple models and carry out appropriate investigations to develop simple explanations.

### Other Activities



Coding with Sphero Indi for Composting



Waste Sorting Activity



# Lesson Steps

## 1. Introduction (10 minutes)

- Begin with a korero (discussion) to explain about waste and the importance of decomposition for the environment.
- Show the students the two types of copy paper wrappers and ask them to predict which one will decompose faster and why.

## 2. Burying the Copy Paper Wrappers (20 minutes)

- Head outside to a designated area in the school garden or another suitable spot.
- Divide the class into two groups. One group will bury the plastic wrapper, and the other will bury the paper wrapper.
- Demonstrate how to dig a small hole (about 15 cm deep) and place the wrapper inside. Cover the wrapper with soil.
- Mark each spot with a flag or marker so it can be easily found for future observations.

## 3. Recording Predictions (10 minutes)

- Have the students return to the classroom and write down their predictions in their notebooks (or in the separate activity template). Encourage them to think about why they think one material will decompose faster than the other.

The image shows a worksheet titled "Copy Paper Wrapping Composting Experiment Plastic versus Paper". It includes a section for "My Name is:" and "Hypothesis: Which will last the longest in compost? Which will last longest in soil or water?". Below this are two columns: "Plastic" and "Paper", each with a table for recording observations. The "Plastic" table has 5 rows and 2 columns, and the "Paper" table has 5 rows and 2 columns. At the bottom, there is a table for "Date" with columns for "Plastic" and "Paper" and 5 rows. The OfficeMax logo is at the bottom right.

Copy Paper Wrapping Composting Experiment Template

## 4. Weekly Observations (10 minutes each week for 12 weeks)

- Schedule a weekly time to visit the burial sites. Each week, have the students dig up the copy paper wrappers, observe any changes, and record their findings in their notebooks (or the separate activity template).
- Optionally, take photos each week to document the changes visually.

## 5. Final Discussion (20 minutes)

- After 12 weeks, have a final observation and then a class discussion about the results.
- Compare the initial predictions with the actual results. Discuss why the plastic copy paper wrapper did not decompose (or decomposed very little) compared to the paper copy paper wrapper.
- Talk about the environmental impact of plastic waste and the importance of using biodegradable materials.

## Follow-Up Activities

- Create a poster or presentation summarising the findings and share it with the school community.
- Discuss ways to reduce plastic waste in everyday life and encourage students to come up with ideas for sustainable practices.

