



THE SCENARIO

Have you ever wondered what happens to dead plants? Fallen leaves? Your lunch? Design an investigation to discover it all!

CURRICULUM STRANDS

Investigation
 Sensemaking
 Communication
 Responsible & Sustainable Application

Process

MATERIALS

- 1 clear 2L plastic bottle (or more if you are comparing multiple variables)

Per bottle:

- 1 cup of fruit, vegetables, and other organic food waste from your lunch (no sauce)
- 1 cup of leaves or grass clippings
- 1 cup of shredded paper
- 5 cups of potting soil
- 1 - 2 cups of water
- Tape
- Scissors or other cutting tool

SAFETY & SET-UP

Do not taste any substance in a science lab setting.
 You may choose to wear non-latex gloves. Exercise extra caution while cutting.

1. Gather materials.
2. Cut the top 8cm off the plastic bottle and clean the bottle.
3. Layer the materials in the bottle: 1 cup soil, single layer of organic food matter, 1 cup of soil, single layer of shredded paper, 1 cup of soil, single layer of leaves/grass clippings, 1 cup of soil.
4. Moisten the soil with 1-2 cups of water (each layer should saturate - keep moist)
5. Replace the top of the bottle and tape in place.
6. Place in a sunny location

STEPS TO INQUIRY

Problem Solving

OBSERVE

Safely make and record observations before and after adding materials to the bottle. Observe for at least 3 weeks, taking notes, pictures, etc. Practice using tools appropriately (magnifying glass, microscope, etc.).

QUESTION / WONDER

What do you wonder about what you're observing? Create a list of your 'wonders' and 'questions'. Ex: What variables can affect what happens? What other materials could you use? I wonder what effect the sun has? Will a plant grow better in this soil than others?

EXPLORE

Develop and safely carry out an investigation to answer your wonderings and questions. Remember to only change one variable (independent variable) and have something you can measure (dependent variable).

If I change I.V. how will it affect D.V.?

LEARNING CONTEXTS

Ecological Systems, Cycles, Energy Transfer & Conservation, Earth Systems, Safety, Equipment & Tools

