



Pre-Event Lesson: Investigating Decomposition

Subject: Science

Grade Level: Key Stage 2 (KS2)

Duration: 1 hour

Objectives:

- To understand the process of decomposition and its role in the environment.
- To observe and investigate the decomposition of different types of food waste.
- To see what rots best!
- To recognize the importance of reducing waste for environmental sustainability.

Materials Needed:

- Various types of food waste (e.g., fruit peels, vegetable scraps, bread)
- Clear plastic containers or jars
- Soil or compost
- Water
- Notebook or journal for recording observations
- Pens or pencils

Introduction (15 minutes):

- Begin the lesson by discussing the concept of decomposition with the students. Explain that decomposition is the process by which organic materials break down into simpler substances over time.
- Engage students in a brief discussion about why decomposition is important for the environment. Highlight how decomposers such as bacteria, fungi, and worms play a vital role in recycling nutrients and enriching the soil.
- Introduce the objective of the lesson: to set up an experiment to observe the decomposition of different types of food waste.

Experiment Setup (20 minutes):

- Divide the class into small groups and provide each group with a clear plastic container or jar.
- Instruct students to fill their containers with a layer of soil or compost, leaving some space at the top.
- Next, provide students with various types of food waste, such as fruit peels, vegetable scraps, and bread. Encourage them to choose at least three different types of food waste to include in their experiment.
- Have students place the food waste on top of the soil/compost layer in their containers.
- Ask students to add a small amount of water to each container to simulate natural moisture levels in the environment.
- Once the containers are set up, instruct students to seal them with a lid or plastic wrap to create a controlled environment for the experiment.

Observation and Recording (15 minutes):

- Instruct students to place their containers in a designated area of the classroom where they will not be disturbed.
- Explain to students that they will need to observe and record any changes in the food waste over the course of the experiment. Each time they observe their sample, they should open the container to get a good look.
- Provide students with notebooks or journals and instruct them to record their observations regularly over the next week. Encourage them to note any changes in appearance, texture, and smell.

Conclusion (10 minutes):

- After one week, reconvene as a class to discuss the results of the experiment.
- Ask students to share their observations and any patterns or trends they noticed.
- Guide a discussion on the importance of reducing food waste and its impact on the environment. Encourage students to brainstorm ideas for reducing waste in their own lives and communities.

Submission Activity:

Work as a class to create posters summarizing the findings of the experiment and highlighting the importance of waste reduction for environmental sustainability. Submit a single poster

design to cassie.cramer@big-ideas.org by 24 June 2024 for a chance to win a trip for your students to the ReFood composting facility on the week commencing 15 July 2024.