Bury Your Trash!

_____

(Your name here)

Bury various pieces of trash in a plotted area of land outside. After two to three months, uncover the trash to investigate what types of materials biodegrade in soil.

Directions:

Materials List:

- ☐ Assorted trash and pieces of food (save your lunch trash!)
  RECOMMENDED ITEMS:
  - ☐ Tomato
  - ☐ Lettuce
  - ☐ Carrot
  - ☐ Bread
  - ☐ Straw
  - ☐ Plastic Baggie
  - ☐ Styrofoam container
  - ☐ Cigarette Butt
  - ☐ Plastic Utensil
  - ☐ Piece of Paper or cardboard
  - ☐ Piece of metal

- ☐ 1 patch of ground (earthy, with soil) that can be used to dig holes in, roughly 1.5 m x 1.5 m (5 ft x 5 ft)
- ☐ (optional) string, approximately 12 m (40 ft), for marking off ground segments
- ☐ small shovels or trowels, to dig up the soil
- ☐ 2 large sheets of poster paper
- ☐ disposable gloves, pair for each student

1. Predict, for each trash type, whether or not that material will biodegrade over the next three months. Record your predictions.

Type of Garbage	Prediction	Result

2. Draw a grid diagram on a poster board and record where each item is buried in the plot.

3. Two to three months later, or longer if the experiment is performed during the winter months, bring the poster boards, shovel and gloves and go outside with the class and dig up the plot. As each plot is dug up, try to identify what is uncovered. Use descriptive words to explain what the piece of trash now looks like, how it changed, and record the results for each piece of trash.

Which types of garbage decomposed? Why do you think they were able to decompose?

Which types of garbage did not decompose? Why do you think they were not able to decompose?

Which types of trash were not recognizable? What happened over the last several months that made those pieces of trash change?

In what ways might the use of biodegradable materials be helpful to the environment?

Vocabulary/Definitions

Biodegrade - To decay and become absorbed by the environment.

Compost - Remnants of organic materials, usually used in gardening.

Decompose - Similar to spoiling, the breaking down of larger molecules into smaller molecules.

Inorganic matter - Matter not having the structure or organization characteristic of living bodies.

Landfill - A site for the disposal of waste materials by burial.

Organic matter - Matter that has come from a recently living organism, is capable of decay, or the product of decay.

Safety Issues

Handling garbage is unsanitary so make sure that the children wear gloves and wash their hands after they move their trash from the cafeteria to the mock landfill.

Remind students to be careful when handling the small shovels. If they do not know already, instruct them in the correct way to dig up small amounts of soil at a time.

Troubleshooting Tips

It helps to dig up the soil in the grid area before the children dig their own holes. Locating the test plot in a garden area may make moving the soil easier.

Bury as many different types of trash (different materials) as possible, including a lot of organic items that will readily decompose.

Doing this experiment in the warmer months helps the organic objects decay much faster, and reduces the three-month waiting period a good deal.