

Ecosystems Activity Bag

EcoBag: Student Activity Guide

Have you ever wondered what happens when an animal dies in the woods, why the grass grows, or what happens to a banana peel when you are done eating the banana? In this activity, you will explore some of these ideas.

These directions will get you started. Your teacher will be in contact to guide you and provide information.

Materials From The Bag

- 1 Plastic Squat Cup
- 1 Soil Tablet
- Medicine Cup
- Bag of Grass Seed (If you have not completed the Impacts on Ecosystems activity, save the remaining grass seed.)
- 6" x 9" Plastic Bag
- Small Spoon

You Will Need

- Water
- Piece of fresh fruit or vegetable, such as a grape, apple, banana, or cucumber. The piece should be about the size and width of a quarter.

Part 1: Exploration - Observing and Wondering

1. Remove the mesh from the soil tablet and place the tablet in the squat cup. Add 30 mL of water.
2. After the water is absorbed, break apart the soil using a small spoon.
3. Add an additional 30mL of water and mix.
4. Place a small spoon of seeds into the soil. Gently mix the seeds into the soil.
5. Place your piece of fruit or vegetable on the top of the soil.
6. Carefully place the cup into the plastic bag. Seal the bag. Make sure to leave air in the bag.
7. Draw your EcoBag. Record your observations and questions you have.
8. After 24 hours, open up your EcoBag, record your observations, and seal your Ecobag again. Draw your EcoBag.
9. Repeat step 8 for the next 5-7 days.

Part 2: What's Happening in Your EcoBag?

What's happening...

You may have noticed that your grass began to grow or your vegetable or fruit began to change colors and break down. All ecosystems have a way to break down dead things (plants, animals, and waste), and recycle them so that the next generation of organisms can use the materials that made them. **Decomposers** are responsible for this. This provides essential nutrients to the ecosystem. Without decomposers, plants would not get essential nutrients and waste and dead things would pile up.

All ecosystems have ways to make energy from the sun available to the organisms living there. The organisms that do this work are called **producers**. Producers receive energy directly from the sun and are able to produce their own energy and food. This process is called photosynthesis. Plants are producers.

Based on this information, provide evidence to support that your EcoBag has decomposers and producers.