

COMPOST IN A JAR ACTIVITY

Subject: compost

Audience: K-2, 3-5

Group Size: one class is best, but will work with larger

Setting: this activity can be done indoors or outdoors.

Time Frame: 30-45 minutes: extensions may cover several class periods.

Skills: Analyze, Compare, Observe.

Vocabulary: compost, soil web, earthworms, decomposition.

Objectives: This activity can be used for any age and is a great way to show soil formation compared to compost.

Materials List

Glass or plastic jar with lid for each student or group of students.

Soil samples
water
leaves
food scraps

BACKGROUND MATERIAL:

Soil is made up of mineral particles, organic matter and pore spaces which may include, air, water and organisms. Compost is not soil. It is an important component of soil in the form of organic matter, but it is not true soil. Earthworms and other organisms that live in the soil help to break down the organic material into a form that plant roots can use to get nutrients.

ACTIVITY PROCEDURE:

Explain to students they are going to make compost, but not soil!! Give each student or group of students a jar. Have them fill it half full with soil. Have each group put in five tablespoons of food scraps (banana peels, orange peels, apple peels work best, DO NOT use meat, dairy products or broccoli). Crumble 30 leaves and place on top of the food scraps. Add enough pond water or creek water to lightly moisten. (Tap water will work, but it doesn't have a lot of microorganisms.) Make several small holes in the lid of the jar. (If you are working with younger students, you may want to do this part ahead of time.) Place the lid on the jar and place it in a dark corner. Observe and shake the jar daily. Discuss what is happening in the jar and where the fruit peels are going.

EXTENSIONS OR RELATED ACTIVITIES:

Students can learn about decomposition on a larger scale by setting up a compost bin outside on the school grounds.

Students can calculate the amount of food scraps in the jar by weighing them each day. They can graph the results and once finished, try another experiment while changing the variable, i.e. use tap water, use potting soil, leave compost jar in the sun, etc.

You can also lead a discussion to have the students understand what happens when all of the microorganisms in the soil are killed, for example, a poorly managed farm field or a waste site.

TIPS AND HELPFUL HINTS:

Read *Worms Eat My Garbage* by Mary Appelhof. This is a wonderful book to read to learn all about earthworms, from reproduction to raising your own.

Contributed By: Gwen Z. Roth, Hamilton County SWCD **Reference:** ??