

Vermicomposting Activity: Decomposing in a Jar

DESCRIPTION

Students will learn which types of material decompose by placing organic and inorganic material in glass jars and observing what happens.



BACKGROUND INFORMATION

- Organic material is any material which was once alive and growing.
- Organic material will decompose and recycle nutrients back into the soil.
- Organic material decomposes with the help of decomposer organisms.
- Some types of material will not decompose, or will decompose very slowly.
- Decomposer organisms need food, water and oxygen.
- Organic material can be composted using a vermicompost bin or backyard compost bin.
- Organic material makes up 30% of household waste.

MATERIALS



Four clear glass jars (no lids)



Apple core



Dried leaf



Piece of paper



Piece of plastic



Four labels and a marker



Watering can



Soil to fill each jar



Small shovel

PROCEDURE

1. Place one piece of material in each jar – (1) apple core, (2) dried leaf, (3) piece of paper, and (4) piece of plastic.
2. Press the material to one side of the jar with your hand while filling the jar with soil – this will ensure the material is visible through the glass.
3. Repeat until all four jars are filled.
4. Place a label on each jar and include the jar number and date.
5. Place the jars in a sunny place, such as a window sill.
6. Water the jars periodically, just enough to keep the soil moist.
7. Observe what happens to each material and, as a class, record your observations on the table provided (you may want to make a larger poster to include all the students' answers and observations).
8. Try repeating the experiment with different materials.



FOLLOW-UP QUESTIONS

1. Which materials started to decompose first?
2. Which materials didn't decompose at all?
3. What do we call materials that will decompose?
4. Is the organic material decomposing with help from decomposer organisms in the soil?
5. Do the decomposer organisms have food, water and oxygen?
6. Is the piece of plastic an organic material?
7. What do you think would happen if you did the same experiment with other materials? Like a banana peel, some grass, a candy wrapper, or a piece of cardboard?

TABLE 1: WATCHING MATERIALS DECOMPOSE

JAR NUMBER	JAR DATE	MATERIAL	DAY 7	DAY 14	DAY 21	DID IT DECOMPOSE?	IS IT ORGANIC?
			WHAT DOES IT LOOK LIKE?	WHAT DOES IT LOOK LIKE?	WHAT DOES IT LOOK LIKE?	HOW LONG DID IT TAKE?	
EXAMPLE	JAN. 5TH	BANANA PEEL	IT HAS BROWN SPOTS.	IT'S TURNING BROWN.	IT'S DARK AND MUSHY.	YES. 32 DAYS.	YES
1		APPLE CORE					
2		DRIED LEAF					
3		PAPER					
4		PLASTIC					

