

# OBSERVING THE DECOMPOSITION OF LEAVES

## TERRARIUM EXPERIMENT



Name: \_\_\_\_\_ Date: \_\_\_\_\_

### OBJECTIVE

To observe how leaves break down (changes in appearance and texture) over time in a terrarium and to identify signs of decomposition.

### MATERIALS

- ☐ Clear jar or container with lid (terrarium)
- ☐ Soil
- ☐ Dried leaves (different types)
- ☐ Small sticks or twigs (optional)
- ☐ Moss or small plants (optional)
- ☐ Water (spray bottle or dropper)
- ☐ Magnifying glass (optional)
- ☐ Notebook or paper
- ☐ Pencil

### PROCEDURE

1. Add a 2–3 cm layer of soil to the bottom of the jar.
2. Place dried leaves on top of the soil. You can use different types of leaves.
3. (Optional) Add small sticks, moss, or plants to create a mini ecosystem.
4. Lightly mist with water so the soil and leaves are moist, but not soaking.
5. Close the lid and place the terrarium in a spot with indirect light.
6. Observe the leaves over time and record your observations.
7. Keep the terrarium slightly moist. Mist when needed.

**TIP:** Decomposition is helped by tiny living things like fungi, bacteria, and small insects.

### WHAT IS DECOMPOSITION?

Decomposition is the process where dead plants and animals are broken down by living things such as fungi, bacteria, and insects. This returns nutrients to the soil and helps new life grow.

### WHAT TO LOOK FOR



Color changes  
(fading, darkening)



Texture changes  
(soft, brittle, holey)



Fungal growth  
(mold or mushrooms)



Small creatures  
(insects, worms)



Leaves breaking  
into smaller pieces

### OBSERVATION TABLE

| Date | What I See<br>(appearance of leaves) | Changes in Texture<br>(soft, brittle, etc.) | Signs of Decomposition<br>(mold, insects, pieces) | Sketch<br>(optional) |
|------|--------------------------------------|---------------------------------------------|---------------------------------------------------|----------------------|
| / /  |                                      |                                             |                                                   |                      |
| / /  |                                      |                                             |                                                   |                      |
| / /  |                                      |                                             |                                                   |                      |
| / /  |                                      |                                             |                                                   |                      |

### REFLECTION QUESTIONS

1. What changes did you notice in the leaves over time? \_\_\_\_\_
2. What signs showed that decomposition was happening? \_\_\_\_\_
3. What living things do you think helped break down the leaves? \_\_\_\_\_
4. Why is decomposition important in nature? \_\_\_\_\_



### THINK LIKE A SCIENTIST!

Make a prediction: What do you think will happen to the leaves in 2 weeks? \_\_\_\_\_  
If I changed one thing (e.g., less water, more light), I think \_\_\_\_\_ would happen.