

Build an Ecosystem in a Jar

Week 18 • Wednesday • Life Science

Reading Time

Can you build a tiny ecosystem? Yes! A terrarium is a small ecosystem inside a jar. It has soil, plants, water, and air. Sunlight shines in through the glass.

In a closed terrarium, water goes around and around. The plants drink water from the soil. Water leaves the plants and makes tiny drops on the glass. The drops fall back to the soil like rain. It is a tiny water cycle!

Today you will build your own terrarium. You will watch it for the next few weeks. You will see a real ecosystem work!

Warm-Up Questions

1. What is a terrarium?

2. What non-living things are in a terrarium?

3. Where do the water drops on the glass come from?

Experiment: Terrarium in a Jar

You will need: a big glass jar with a lid, small rocks, soil, 1-2 small plants (or moss), a spoon, and water.

Steps:

1. Put a layer of small rocks in the bottom of the jar.
2. Add 2-3 inches of soil on top of the rocks.
3. Dig small holes and gently plant your plants.
4. Add a little water. The soil should be damp, not soggy.
5. Put the lid on. Place the jar in bright light, not hot sun.
6. Watch it each day and record what you see!

Safety: Ask an adult to help with the glass jar. Glass can break and cut you. Wash your hands after touching soil and plants.

Observe Your Ecosystem

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Ecosystem Parts Sort

List the parts of YOUR terrarium in the correct column.

Living Parts	Non-Living Parts

Observation Chart

Observe your terrarium today. Check on it again later this week.

Question	Day 1	Day 3 or 4
Do the plants look healthy?		
Are there water drops on the glass?		
Does the soil look wet or dry?		
What else do you notice?		

Draw Your Terrarium

Draw your terrarium. Label the rocks, soil, plants, water, and air.

Thinking Like an Ecologist

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Extended Writing

How is your terrarium like a real forest ecosystem? How is it different?

Design Challenge

Pretend you could add ONE small animal to your terrarium. A pill bug? A worm? A snail? Which would you pick, and what would it need to live?

My animal: _____

It would eat...	It would drink...	It would hide in...

Draw your terrarium with the new animal inside.

Science Journal

Make a prediction. What will your terrarium look like in one week?