

Make a Classroom Terrarium

In this Post activity, the Classroom will create a closed-jar terrarium that mimics a natural ecosystem. Using layers of pebbles, charcoal, soil, and small plants, build a miniature environment where water, air, and nutrients cycle naturally. Once sealed and placed in bright, indirect light, the terrarium becomes a self-sustaining habitat—illustrating concepts like the water cycle, photosynthesis, and the balance between plants and their environment. This project encourages observation, responsibility, and an understanding of how living systems support themselves over time.

Instructions:

1. Prep the container

Rinse the jar, lid, pebbles, and tools. Clean gear helps prevent mold.

2. Add drainage layer (pebbles)

Pour in a 1–2 inch layer of pebbles.

Why: Extra water collects here so roots don't drown.

3. Add charcoal (thin layer)

Sprinkle 1–2 tablespoons of activated charcoal evenly over the pebbles.

Why: Filters odors/impurities and keeps the mini-ecosystem fresh.

4. (Optional) Add barrier

Place a coffee-filter circle or mesh on top of the charcoal.

Why: Helps keep soil from sifting down into the rocks.

5. Add soil

Add 2–3 inches of potting soil. Lightly pat it level and mist until evenly damp (not muddy).

Tip: Skip kitchen additives (eggshells/coffee grounds); they can invite mold.

6. Plant

Gently remove plants from pots, loosen roots, and trim overly long roots.

Use a spoon to make holes, tuck roots in, and firm soil around each plant.

Keep leaves away from the glass to prevent constant condensation on foliage.

7. Clean the glass & decorate (optional)

Wipe inside glass with a dry paper towel.

Add a few decorative stones or moss for a finished look.

What You Will Need:

- Clear container with a lid (glass or plastic, 1–2 qt works great)
- Small pebbles or aquarium gravel (rinsed)
- Activated charcoal (horticultural/aquarium type)
- Potting soil with some organic matter (no fertilizer beads)
- Small, humidity-loving plants: e.g., moss, mini ferns, peperomia, pilea
- Water (spray bottle or small cup)

Optional: long spoon/tongs, paper towel, small decorative stones, label

Nice-to-have: a coffee filter or mesh circle (keeps soil from sifting into pebbles)

8. Water & seal

Lightly mist the plants/soil again. You want soil evenly moist, not soggy—no standing water above the pebbles. *Put the lid on to complete the closed terrarium.*

9. Place it correctly (light matters!)

Set in bright, indirect light (e.g., near a window but out of direct sun).

Avoid direct sunlight for closed terrariums—it can overheat the jar and stress the plants.

10. First-week tuning

- Morning condensation, clear by afternoon: Perfect.
- Heavy fog all day: Crack the lid 30–60 min to vent, then reseal.
- No condensation after day 1–2 & soil looks dry: Add 1–2 teaspoons of water, reseal.

Keep It Self-Sustaining (Easy Care)

- **Hands off:** Once balanced, don't open it often—the water and air cycle inside.
- **Light:** Keep bright, indirect. Rotate the jar weekly so plants grow evenly.
- **Prune:** Trim leaves that touch the glass; remove any yellow/brown bits.
- **Wipe & move if needed:** Green film on glass = too much light. Wipe and shift slightly farther from the window.

Quick Troubleshooting

- **Moldy patch:** Remove the spot, vent 30–60 min, then reseal. (Optional: introduce “springtails” if you use them in class—they're tiny cleaners.)
- **Droopy/pale plants:** Usually low light or too wet. Move to brighter indirect light, vent briefly, and let soil settle.
- **Crisp/dry look:** Add a teaspoon of water and move a bit farther from heat sources.

Terrarium observations worksheet

Name _____ Date _____

1. Draw what your terrarium looks like today:

2. Circle what you see inside:



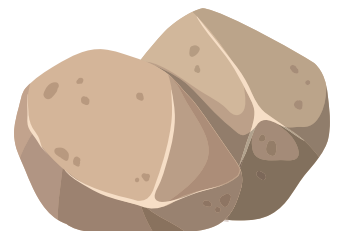
• Plants



• Water drops



• Fog on the glass



• Rocks

This image shows a full page of handwriting practice paper. It features four identical sets of horizontal guidelines arranged vertically. Each set includes three lines: a solid top line, a dashed midline, and a solid bottom line, providing a structured space for practicing letter formation and alignment. The paper is otherwise blank, with no text or other markings.[illegible]