

Materials Needed

- 2-4 cups of dirt
- Clear glass jar or similar with a lid
- 1 cup of water
- Craft sticks, plastic cutlery, or other small digging tools
- Handful of small rocks or pebbles
- Several wildflowers, herbs and/or small succulent plants
- Optional: Butcher paper

Grade Range

Pre-K
K-2
3-5

Topics/Skills

Reuse, Plant life, water cycles, design thinking

Learning Standards

[Ecosystems: Interactions, Energy, and Dynamics](#)
[From molecules to Organisms: Structures and Processes](#)

Duration

20 minutes

Prep Time

20 minutes

Tiny Terrarium

Make a New World with Reuse



A tiny garden that recycles water vapor is the perfect Earth Day activity that can also be a sweet gift idea. Observe a mini hydrosphere that changes daily. Use creativity and reused containers in this fun science activity.

Activity Challenge

Reuse a glass jar or similar container to make a terrarium.

Preparation

1. Select a workspace and collect the materials needed.
2. Optional: Cover workspace with butcher paper for easier clean-up.

To Do

1. Fill the jar $\frac{3}{4}$ " full of dirt.
2. Use craft sticks, plastic cutlery, or other tools to dig holes in the dirt.
3. Plant small flowers, tiny succulents and/or herbs in the dirt.
4. Place small rocks, bits of wood and figurines that make you happy.
5. Add just enough water to thoroughly moisten the dirt.

Observations

- How much water and sunlight will the plants inside the terrarium need to grow and take root?
- Will the plants be able to make baby plants?
- How will the terrarium's environment be different with the lid on versus left off?
- What would happen if no water is added to the terrarium when made?

Extensions

Add small insects like ants, roly-polies or ladybugs to the terrarium. Note any changes in the terrarium's environment with the added insects.

The Science behind the Activity

Ecosystems are biological communities of interacting organisms and their physical environments. The terrarium is a clear container that allows one to view an ecosystem on a smaller level. Depending on the soil, climate, and biology in a terrarium the ecosystem will have different observable patterns. Life cycles for plants, animals, especially insects, and flowers can be observed in small terrariums. Look closely at the changing state of water in a terrarium and one can observe the water cycle.