



## #2: Biome in a Bag

### Materials Needed:

- Recycled plastic bottle—cut in half
- Potting soil
- Grass seeds
- Pebbles
- Water
- Plastic storage bag



*“Ray Recycle here! You need my help for this science bite! We’re learning about the water in a biome and how plants grow in different environments. A biome is a community of plants and animals that occurs naturally—like a rainforest or prairie.*

*Today we’re going to make a biome in a bag. We’ll put our soil, rocks and seeds together—add some water and then watch the exciting scientific process! We’ll learn that cans and bottles aren’t the only things that can be recycled!”*

### **Biome in a Bag experiment:**

- Have a grown-up help you cut the bottom off a bottle—the bottom of the bottle is where you will plant your seeds.
- First place some pebbles in the bottom of your container—this pebble layer should be about half an inch deep.
- Then put some soil on top of your pebbles. The soil should be about an inch to an inch and a half deep.
- Now it’s time to plant your seeds! Make a hole down the center of the soil—sprinkle the seeds into that hole.

- Carefully cover the seeds with soil.
- Water the soil just until you can see the water collect on the bottom of the pebbles.
- Seal your biome in a plastic storage bag and place it on a windowsill where it will get lots of sunlight.



### How does it work?!

You've created an environment for your plants! **You won't need to water your seeds again** because they have everything they need inside the bag and **the water will recycle itself**. The roots of the plant absorb the water and the water travels up the stem to all the parts of the plant. When water gets to the leaves, some of it evaporates—right there inside the bag! Water also evaporates from the soil. The evaporated water forms droplets on the inside of the bag (called condensation) and the condensation falls back down to the soil like rain!

You can watch the whole water cycle inside your little biome!



*“You see! I told you there was more to recycling than just cans and bottles. What are some other things that you recycle? Can you think of any other things found in nature that recycle themselves? Recycling is so important to help keep our earth healthy!”*

Eco Boys and Girls® Science Bites

prepared and tested by:

**CHILDREN'S  
MUSEUM**

of NEW HAMPSHIRE