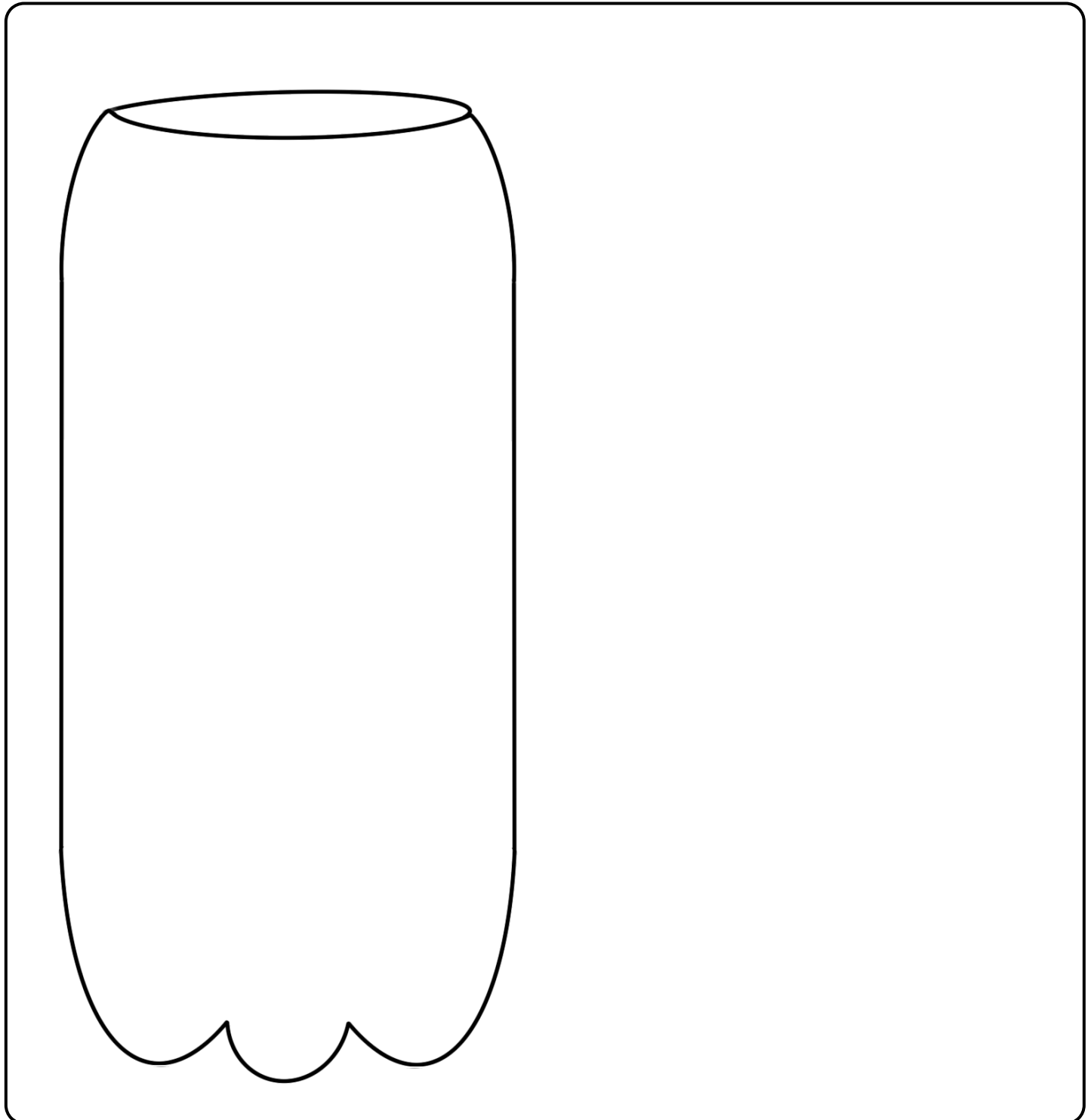


LANDFILL IN A BOTTLE

Different types of waste take different lengths of time to decompose, and some waste never fully goes away! In this module, you and your classmates will create a mini landfill inside a plastic bottle! Complete the diagram below to show what your completed landfill looks like. Then, make predictions about what will happen in your landfill over the next few weeks.



Waste In Our World: Chapter Four

LANDFILL IN A BOTTLE: TEACHER RESOURCE

In this module, you will create a landfill in a bottle! This activity is best completed shortly after creating your class compost in a bottle in order to compare the decomposition of organic vs inorganic materials. Have your students write predictions of what they think will happen to the contents of each bottle, and place them next to each other to observe their progress over time. At least 3 weeks are recommended to observe changes within each bottle.

MATERIALS

- A large, clean plastic bottle
- A sharp knife or scissors
- Dark paper and tape / paper bag
- Dirt
- Organic and inorganic waste items (plastic bag scraps, food wrapper, bottle lid, food waste, etc,)
- Spray bottle with water

STEPS

1. Use the knife or scissors to cut the top off of the bottle.
2. Fill the bottle with layers of waste and dirt. Make sure the waste is visible along the sides of the bottle.
3. Finish with a final layer of dirt at the top of the bottle.
4. Wrap your bottle in a paper bag or dark paper to block out light. Cover the top with a paper towel.
5. Spray the top of the landfill with water and place it somewhere warm and sunny. Add water daily to keep the top layer of soil damp.

EXTENSION ACTIVITIES

- Make predictions about how the landfill and compost in bottles will change over the course of 3-4 weeks. Have students write these predictions in waste monitoring journals.
- Check in on the landfill and compost in bottles weekly and have students re-draw their observation diagrams, noting any observable changes in the contents.
- After observing plastic waste in a landfill environment, brainstorm as a class environmentally-friendly alternatives to plastic products.