

Directions for the

EROSION IN A BOTTLE ACTIVITY

Total Time: 40
minutes

Supplies Needed:

- Three 1-liter bottles (or any bottles of the same size)
- Three plastic water bottles
- Bucket of soil
- Grass with soil attached to roots
- Handful of leaves and natural debris
- Hand trowel
- Measuring cup
- Scissors
- String



Directions:

1. Cut the 1-liter bottles in half so you have a boat-like container to place the soil in
2. Cut off the bottom 3 inches of the water bottles and discard the tops, to create a plastic cup to catch the runoff. At the top of the cup, poke two holes on opposite sides to tie the string.
3. Cut three pieces of string, about 5 inches long and loop through the holes you cut in the cups. Tie knots at the end to hold in place. Now you should have three hanging cups to hang off of the opening of the 1-liter bottle.
4. Using the trowel, fill each 1-liter bottle with the same amount of soil.

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Directions Continued:

5. In the second 1-liter bottle, place the leaves and natural debris on top. Gently push into the soil to ensure it stays put, but being careful not to compact the soil too much.
6. In the third 1-liter bottle, place the grass with soil attached to the roots on top of the soil in the bottle. Gently push on the roots to secure to the soil beneath it.
7. Hang the three water hanging baskets on the end of the 1-liter bottle opening.
8. Now that you have your experiment set up, begin filling out the activity sheet.
9. Once you have filled out the first half of the activity sheet and determined your hypothesis, fill your measuring cup with water. Use about two cups of water in each 1-liter bottle.
10. Slowly pour the water into each bottle until runoff flows from the bottle into the hanging basket.
11. Once you've filled each bottle and can see runoff in each basket, fill out the remainder of the activity sheet and observe your results.

Pictures of the Process

