



## FILTER GROUNDWATER WITH PLANTS

Try this simple at-home, or in-classroom experiment to see how plants help keep our groundwater clean.

### STEPS

#### MATERIALS



- Six recycled plastic bottles
- Scissors
- Gravel
- Living Plants
- Soil
- Water
- Three containers to elevate your bottles for the experiment. (We used recycled plastic food containers.)

1. Take one of your recycled plastic bottles and cut a large rectangle-shaped opening along one of the sides. Remove the cut plastic. Repeat this step for two more bottles.
  - Tip: Make sure your holes are wide enough to add soil and your other materials into each bottle.
  - Remove the cap from each bottle.
2. Add a layer of soil to each bottle. Then, add your experiment materials to each bottle.
  - Leave one bottle with just the soil layer. In the second bottle, add a layer of gravel over the soil. In the third bottle, add a layer of living plants.
3. Cut the three remaining bottles in half, leaving a top half and a bottom half. Use the bottom half for another project.
  - Arrange and stack your bottles to prepare to filter groundwater.
  - Tip: Use items such as kitchen containers, boxes or books to elevate the bottles filled with materials. Place the empty bottles beneath each open spout for collecting water.
4. Pour water into each of your bottles containing the soil and experiment materials.
  - Wait 60 seconds for the water to collect in the bottles below and observe the differences.
5. Get creative, and try the experiment with other materials, like stones or trash.

For more plant-based activities and resources, visit: [SeedYourFuture.org](https://SeedYourFuture.org)