

Groundwater Pollution Demonstration

Instructions

TEACHER NOTE: Complete steps 1-5 before class and demonstrate steps 6-7 during class time.

Supplies: two clear 2-liter bottles, water, two cups of sand, coffee filter, scissors, red food coloring, one-cup measuring cup, utility knife, drill or nail

Using two clear two-liter bottles, create a model of the water table.

1. Use a utility knife to cut off the bottom two inches of a two-liter bottle. Recycle the top.
2. Drill six holes in the bottom of the bottle. This can be done with a low-speed drill or a hot nail.
3. Cut off and recycle the top two inches (five cm) of the second bottle.
4. Cut a coffee filter to fit into the first bottle. Cover the coffee filter and the bottle bottom with two inches (five cm) of sand.
5. Fit the bottle bottom with holes into the second bottle. You now have a working model of ground water and pollution.
6. To demonstrate how rain water becomes ground water, pour one cup of water on the sand. The water will filter through the sand and collect at the bottom of the bottle.
7. Put five drops of red food coloring on the sand to represent pollution. Slowly pour another cup of water on top of the food coloring. It will filter through the sand and appear in the bottom of the bottle.

The ground water has been polluted.

