



Explore

Name: _____ Date: _____

The Fertilizer We Use

Materials:

- | | |
|---------------------------|-------------------------|
| 1 - 12 oz Plastic Cup | 1 tsp. Vegetable Oil |
| 1 - White Paper Towel | 1 tsp. Pepper |
| 1 - Rubber Band | $\frac{3}{4}$ cup Water |
| 1 tsp. Dishwashing Liquid | |

Procedure:

1. Fill the Plastic Cup with about half of the water ($\frac{3}{8}$ of a cup).
2. Loosely cover the cup with the paper towel and secure it with the rubber band. The paper towel should be sagging a little in the middle, not pulled tight.
3. Tear off any excess paper towel from around the cup so students can see the water inside.
4. Draw and record observations of the paper towel and the water in the box below. The paper towel represents the soil on a farm and the water in the cup represents groundwater that will be used as drinking water.

Draw and record your observations of the paper towel and water before the activity begins. Make sure to include labels.



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5. Pour the dishwashing liquid onto the paper towel. This represents the fertilizers we use to grow our food. The paper towel is represents the soil where the crops grow and the water beneath is representing where we get our drinking water.
6. Drop the oil on the paper towel. This represents the oil that may leak from the tractors and trucks used to harvest and transport the food.
7. Sprinkle the pepper on the paper towel. This represents the air pollution caused by the trucks' and tractors' exhaust.
8. Pour the remaining water through the paper towel and into the cup. This represents rainfall.
9. Draw and record observations of the paper towel and the cup in the box below. Include labels to show what has changed.

Draw and record your observations of the paper towel and the cup again. Include labels to show what has changed.

1. What happened to the groundwater?

2. What happened to the paper towel (soil)?
