

▶ The Spill

Prep Time: Three Hours

Experiment Time: Approximately 10 minutes

BACKGROUND

When fuels like diesel spill onto the ground, they can soak into the soil and pollute it. Propane is different – it evaporates (fades into the air) instead of falling onto the ground.

WHY IT MATTERS

If the ground is polluted by spilled fuel, it could harm the grass, crops, or nearby animals and insects. Propane can't be spilled on the ground, so that's one way it helps protect the environment.

SUPPLIES:

- ▶ (2) plastic cups
- ▶ 1/8 cup of water
- ▶ Paper towels
- ▶ 1/8 cup of apple cider vinegar
- ▶ Bean seeds
- ▶ Plastic storage bags



ATTENTION: This experiment requires some simple preparation ahead of the presentation. Please complete step number one about three hours prior to beginning the experiment.

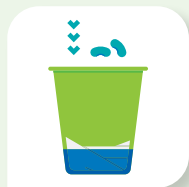
INSTRUCTIONS



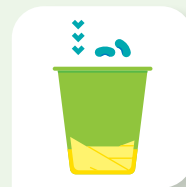
1. Start this experiment by putting paper towels in the cups and pouring water into one, and apple cider vinegar into the other. Pretend the water is propane, and the apple cider vinegar is diesel fuel.



2. Now, the liquids have soaked into the towels and started to dry up. Think of the paper towel as the soil outside. Look how the paper towel with water is dry and clean. The paper towel with the vinegar is a darker color and still wet.



3. In the cup with water on a paper towel, drop in 3-4 bean seeds. Fold the paper towel on top of the seeds. Pour in a little extra water.



4. In the other cup with apple cider vinegar on a paper towel, drop in 3-4 bean seeds. Again, fold the paper towel on top of the seeds and pour in a little extra vinegar.

▶ **Set the cups aside and come back in 8-10 days. This gives the seeds time to start growing!**



5. Pull back the top layer of the paper towel to check the seeds. The seeds in the vinegar cup will probably not have sprouted at all or will be very small. The seeds in the water cup should be green and healthy. This is an example of how the water (which we're pretending is propane) does not hurt the plants, but the vinegar (which we're pretending is diesel) can hurt them.

GROUP DISCUSSION

Where are some places that spilled diesel would be bad for the environment? What about farms?