



Make a Vegetable Oil Tanker

You can make a tanker and clean up a vegetable oil "spill."

Grade Level

Elementary

Materials

- Small piece of aluminum foil
- Cooking oil
- Baking dish half full with water
- Cotton balls or ripped piece of paper towel

Discussion

You've probably heard about oil spilling into a river or the ocean. While accidents are rare, engineers and scientists have had to develop technology to help clean up these spills.

There are several methods used while the oil is still in water.

- Boats with special "skimmers" can remove oil, much like using a ladle in a soup pot.
- Chemicals called dispersants, which are like detergents, help break oil into droplets and then bacteria and other natural organisms in the water can digest the oil.
- Burning is a quick way to be sure a spill doesn't get to shore.
- If the spill does get to the shoreline, sorbents are used to soak it up.

Sorbents are made of polyethylene, a plastic (which is made of oil).

Activity

1. Shape a small piece of aluminum foil into a canoe - maybe a little bigger than your thumb.
2. Fill it with cooking oil and float it on a baking dish half full of water.
3. When you're ready, tip it over.
4. Now use some cotton balls or a ripped piece of paper towel to soak it up.

The oil is absorbed by the fibers in the cotton or paper. The only problem is that you would need a whole ship just to carry this "absorbent" around, because there's just not enough room to keep it on the oil tankers themselves.

Engineers and scientists have used absorbent pillows, like cotton balls, to soak up spilled oil. They've also used big floating booms, giant styrofoam logs wrapped in plastic, to contain the oil spill. Try to contain your own oil spill with a loop of string.

Questions for Students

- Can you name some products that are made with oil?
- What other ways can you clean up your spill? (Detergent, a spoon for skimming, etc.)
- While you contain the oil with your string, what happens if a wave comes? (Suggest the students create some movement with a spoon.)
- Which do you think would be hardest to clean and why... a spill in a lake, river or the ocean?

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