

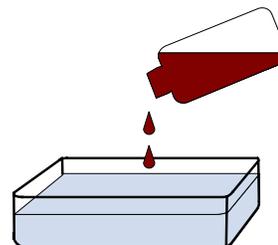
# Oil Spill Clean-Up

## What you need:

- Clear glass dish
- Water
- Vegetable oil mixed with a little cocoa powder
- A variety of materials to clean up the oil spill. Try string, sponges, cotton balls, wooden sticks, or anything else you think might work.
- Liquid dish soap

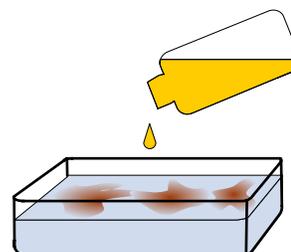
## What to do:

- 1.** Fill the glass dish about half full of water. Let the water settle for a moment until it stops moving, then pour a teaspoon or two of oil into the centre of the dish. The oil will sink at first, then come up and spread over the surface of the water.



- 2.** Try to clean up the oil, using a variety of materials.
  - Can you remove the oil completely?
  - Can you move all the oil to one spot and contain it there?
  - What materials work best?
  - In a real oil spill, how would you dispose of the materials you used to clean up the oil?

- 3.** Put a drop of liquid dish soap in the middle of the oily water. What happens?
  - Is this a good way to clean up a real oil spill?



## How does it work?

Cleaning up the oil is really tough! Some materials can absorb lots of the oil, but even the best materials leave some of it behind.

When you put a drop of soap into the water, the oil scatters quickly to the edges of the dish. Normally, water has surface tension, meaning that the water molecules try to stick together. The soap breaks the connection between water molecules so that they move away from each other, radiating outwards from the soap. As they go, they carry the oil with them to the outer edges of the dish.

This might make the water *look* clean, but is it really? If this were an oil spill in an ocean, the edges of the dish would be a shoreline. Covering it with oil would harm all kinds of plants and animals. And soap is a pollutant too, just like oil.