

Oil Spill Cleanup

Materials

- 2 Containers
- Oil
- Water

- Spoon
- Cotton Pads/Balls
- Soap

For this activity we are going to simulate an oil spill. Fill up one container with water and then pour a layer of oil on top of the water. Oil is less dense than water so it floats on top. Density is the relationship between how much a thing weighs and how much space it takes up. There are various ways to clean up oil spills each have their own advantages and disadvantages and some work better on certain kinds of oil spills than others. We are going try out a few ways on the oil spill we made and see how well they work.

- First try using the spoon to scoop up the oil out of the water. You can put the oil you scoop out into the other container as this will be your waste container. This method is the **boom and skimmer** method which moves the oil to a smaller area and tries to scoop it out. How effective was this method? Was this more or less effective than the other methods? What might be some advantages and disadvantages with this method? What type of oil spill might this method work best for?
- Next you will try using the cotton pads or cotton balls to clean up the oil. When you are finished with cotton pads or balls you can throw them out. This is the **absorbent** method which uses materials like cotton that soak up liquids like oil and water and hold it in the empty spaces between the fibers. How effective was this method? Was this more or less effective than the other methods? What might be some advantages and disadvantages with this method? What type of oil spill might this method work best for?
- Next you will squirt a bit of soap on your oil spill and see what happens to the oil when you do that. You can add more oil if you cleaned up most of it. This is the dispersant method which uses something that reduces the surface tention or how tightly packed the molecules are which causes the oil to disperse or spread out over a larger area of water. This is also used to help clean oil off animals after an oil spill. How effective was this method? Was this more or less effective than the other methods? What might be some advantages and disadvantages with this method? What type of oil spill might this method work best for?