Oil Spills

Start by asking the kids if they know about the 2010 oil spill. (Keep in mind that many won’t, especially the younger ones.) So be sure to explain it to each class. An oil spill occurs when liquid petroleum hydrocarbon is “spilled” into the environment. It occurs when a person or company makes a mistake and it is a form of **pollution**. It can take a very long time to clean up the oil spill. More importantly, it harms the animals and plants. Humans then have to help out to save the animals and clean up the oil spill. Show kids the picture of the boat (you can see oil on the surface of the water) and of the birds, which is just one type of animal affected by oil spills. Note that the pictures are of birds that people cleaned up to save them.

When oil spills into water (like the ocean), the oil and water don’t mix. Hold up water bottle of oil and water so that the kids can see how they don’t mix. When there are waves (shake up the bottle a little) the oil will spread farther and farther into the water and be more and more difficult to clean up.

That’s what we’re going to experiment with today – how to clean up oil. Everyone has at their table various items that they can us to try to clean up their mini oil spill. Each mini oil spill is a container/plastic plate with some water and oil on top. There is a chart on the table to keep track of how well you can clean it up.

Items to try: Pieces of sponges, cotton balls, paper towels, toilet paper, etc.

Have the students try to use each item to move the oil all to one region and contain that oil. If you can get it to one region, can you then remove it from that region?

How do they really clean up oil spills?

“In real life, floating objects, sort of like a big sock, are carried into the ocean and then pushed off the side of a boat to help soak up oil spills. These socks (called **booms**) are filled with absorbent material that can soak up a lot, yet are also lightweight. You created a type of mini boom in this experiment. It works to clean up water by soaking up the messy spill once it gets close to a drop of oil. These booms are very effective, but the difficulty is in controlling them so that they go where the oil is. Was it hard to contain the oil to a small area in this experiment? Many small drops escaped, didn't they? Imagine how difficult blocking off an area with booms would be for a real oil spill in the ocean that has waves and wind.” <http://www.hometrainingtools.com/a/oil-spill-cleanup-science-projects>

|  |  |
| --- | --- |
| ITEM | HOW WELL DID IT WORK? |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

  