

Oil Spill Clean Up Challenge

Learn about the effects of pollution by creating your own oil spill in a pie plate. Experience firsthand the difficulty of cleaning it up.

Materials

- Disposable gloves
- Water
- Vegetable Oil
- Pie pan
- Cotton ball
- Plastic spoon
- Coffee filter
- Aluminum foil
- Paper cup
- Eye dropper
- Liquid detergent

Instructions

1. Put on disposable gloves.
2. Add water to a pan until it is three-fourths full. Add about 30 ml of vegetable oil. What happens to the oil? Record your observation.
3. Try various methods for cleaning up the oil, as listed below. Test each method for one minute and estimate the amount of oil removed using that method. Repeat for all methods. Using this collected data, rate the efficacy of the various methods: Cotton ball; Plastic spoon; Coffee filter; Aluminum foil; Paper cup; Eye dropper.
4. After trying all the above methods, try to remove the oil with the help of liquid detergent. Drop several drops of detergent onto the surface of the oil & water. Record your results. (Note that some detergents will work better than others.)
5. Ask yourself: What happened when the oil was put on the water? Which of the methods worked best for cleaning up the oil? Why? Which methods were the least successful? Why? What happened when the detergent was dropped on the oil? How could detergent be used to clean up an oil spill?

How does this apply to the real world?

These are some methods that have been used in the last few years to reduce the number of oil spills and their effects:

- Boats use large skimmers to skim the oil off the top of the sea.
- Dispersant detergents are used to break up the oil.
- Boons (like bowling bumper guards) are used to surround the spill to help contain the spill and to help keep the animals out.
- Oil evaporates (eventually)

Remember, the best clean-up is prevention!