

Oil Spill Lab- Make-UP

Purpose: What is the effect of _a sorbent material like cotton balls _ on the amount of oil that can be removed from the water?

Hypothesis: If _ a sorbent material like cotton balls _ is used, then ____75%_____ of the oil will be removed from the water.

*For some methods, it may be difficult to quantify the exact amount of oil removed. If possible, quantify your methods, by squeezing/dumping the collected oil into a measuring cup. Note the amount of oil that is sitting at the top. If this is not possible, use thorough, qualitative observations.

Materials:

- Oil
- Water
- 9x 13 pan
- Cotton balls
- Graduated Cylinder
- Beaker
- tweezers

Procedure:

1. Measure the weight of the cottons balls and record it.
2. Place small bits of the cotton balls into the center of the contaminated water.
3. Remove them with tweezers.
4. Place the contaminated cotton balls into the beaker.
5. Repeat until all the oil has been removed.
6. Measure the weight of the cotton balls full of oil
7. Subtract the two weights to determine how much oil was removed.

Data: (Include a labeled data table and graphic representation (graph, picture, etc.)
*Consider the number of trials needed to make the experiment valid.

Results: Restate data in paragraph form. Do not analyze until conclusion.

Conclusion: Answer original purpose
Support or refute hypothesis
Address at least 2 possible sources of error
Recommend ways to fix those sources of error.

Analysis Questions:

1. Explain how the oil behaved as you tried to clean it up. For example, did it spread out or cling to substances?
2. Was the oil easy to remove from the water? Explain.
3. What new ideas do you have for how you might clean up the oil spill?
4. Because a body of water is a closed system, why is it important to keep the oil out?
5. What is the impact of oil spills on animals? How does the oil impact hair, feathers, etc?
6. How do you feel knowing that our oceans are being affected in this way? How can you help?