

CALIFORNIA STATE SCIENCE FAIR 2016 PROJECT SUMMARY

Name(s)

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Project Number

S1003

Project Title

Investigation on the Effectiveness of Potential Sorbent Materials When Collecting Oil

Abstract

Objectives/Goals The goal is to examine and compare the oil collecting effectiveness of three household materials primarily for future potential oil spill occasions.

Methods/Materials

This required a scale, two containers, oil, water, and sorbent materials(sponge, hair, lint)and other materials. The experiment was done by moving sorbent from container to container, weighting the containers, and then by using math finding the results.

Results

Lint was most effective at collecting oil with a ratio of 1 to .05 for the amount collected to amount lost, and while dog hair absorbed more, it also dripped the most oil making it less effective with a 1 to .41 ratio.

Conclusions/Discussion

Finding that lint was most effective at collecting oil helps us understand that previously "useless" byproducts and household materials can be of great use, such as when there's an oil spill or perhaps when oil is spilled in the kitchen. With uses big and small, findings from this experiment have the ability to change the way we see lint, dog hair, sponges and in the future, other available household materials

Summary Statement

As shown by my data, I found that household materials have potential to be sorbents, and that lint was the most effective of the three.

Help Received

My biology teacher, Mrs. Fujimani assisted in working out experimental flaws as well as lending me her scale. My parents also bought the materials, but aside from these things I performed the experiment myself.