



**CALIFORNIA SCIENCE & ENGINEERING FAIR
2018 PROJECT SUMMARY**

Name(s) Alexandra Q. Morris	Project Number 38392
Project Title Household Materials Save Environment	
Abstract Objectives/Goals Using safe, non-toxic household materials to absorb oil spills helps protect the environment and the people and animals that live in it. I wanted to determine which household material would absorb oil the most efficiently. Methods/Materials Used motor oil was measured with a measuring spoon and put into 15 identical glass bowls. The absorbents (flour, baking soda, bread crumbs, and cat litter) were measured with a separate measuring spoon and placed into the bowls with the motor oil. I used evaporation as my control. Each absorbent was tested three times. To measure the amount of oil absorbed, I used observations. Other methods of measuring the oil absorption could have resulted in the oil leaking out of the absorbent that I was testing. Results After testing multiple household materials to determine which one would absorb the motor oil the most efficiently, I found that in two out of three trials, the bread crumbs absorbed the most oil. In all trials, the control group of evaporation absorbed the least amount of motor oil. Conclusions/Discussion My hypothesis was that flour would absorb the most oil because it is made out of starch and gluten, which are both good absorbents. In the end I found that flour, cat litter, baking soda and evaporation did not absorb as much oil as bread crumbs. I believe this is because the bread crumbs act as a sponge to absorb the liquid. With this project and research, we can learn new ways to protect our environment and the things that live in it.	
Summary Statement I tested non-toxic, household materials to determine which would absorb an oil spill the most efficiently.	
Help Received I had help with obtaining the oil and tested materials I used for the experiments. I also had help with the proper disposal of the oil once the experiments were completed.	