



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

Name(s) Alexandra Q. Morris	Project Number J1121
Project Title Household Materials Save Environment	
<p style="text-align: center;">Abstract</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>	
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.	