



**CALIFORNIA STATE SCIENCE FAIR
2011 PROJECT SUMMARY**

Name(s) Emily K. Denny	Project Number J1106
Project Title The Percolation of Motor Oil through Fine, Medium, and Coarse Grained Sands	
<p style="text-align: center;">Abstract</p> <p>Objectives/Goals My project is to determine if the size of the sand grain, fine, medium, or coarse, affects how motor oil percolates through the sand.</p> <p>Methods/Materials Sand was sorted into three sizes of sand grains: fine, medium, and coarse. Three graduated cylinders were filled with 100 ml of each grain sized sand. I added 30 ml of motor oil (10W-40) and watched how the motor oil percolated through the sand. I measured the depth of percolation every 15 minutes for three hours.</p> <p>Results The motor oil percolated fastest through the coarse grain sand. The fine and medium grain sand had about the same percolation rate.</p> <p>Conclusions/Discussion Since motor oil percolates faster through coarse grain sand, then it would be harder to clean up an oil spill on a coarse grain sand beach. However, on a beach that has fine or medium grain sand, the oil will only percolate a couple centimeters down which is where most wildlife lives.</p>	
Summary Statement How motor oil percolates through fine, medium, and coarse grained sands.	
Help Received My Dad helped me organize my procedure. My teacher helped me stay on track. My Mom proofread my backboard.	