



**CALIFORNIA STATE SCIENCE FAIR  
2017 PROJECT SUMMARY**

<b>Name(s)</b> Aria Najmabadi	<b>Project Number</b> <b>J1123</b>
<b>Project Title</b> <b>The Effect of Different Materials that Cover Water on Its Evaporation Rates</b>	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> The objective of this study is to help save water from evaporating by finding a material that could prevent more evaporation than shade balls, which are black foam balls that LA County is using.</p> <p><b>Methods/Materials</b> 2 heat lamps, 20 50mL beakers, 800mL of water (40mL per cup), 40mL vegetable oil (8mL for 5 cup), white styrofoam balls 1cm in diameter, black paint, paintbrush. Recorded water evaporation from 4 different covers (control=no cover) with 5 trials for each daily 5 days.</p> <p><b>Results</b> After 5 days of testing, vegetable oil proved the best cover for reducing evaporation. Black shade balls worked second best, white shade balls third, and the control cup with no cover worked worst.</p> <p><b>Conclusions/Discussion</b> Vegetable oil worked best because it covered the water and didn't let the water escape into the atmosphere. Still, vegetable oil can't be used in reservoirs yet. I learned vegetable oil can be decomposed by organisms and release toxins. I would use more accurate measurements for water evaporation and test more liquids less dense than water (liquids more easily separated/nontoxic).</p>	
<b>Summary Statement</b> I tested different covers to reduce evaporation and found liquids could work better.	
<b>Help Received</b> None. I did the project myself.	