



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

<b>Name(s)</b> Graham M. Luckin	<b>Project Number</b>  38076
<b>Project Title</b> The Effect of Different Golf Ball Dimple Patterns on Travel Time in a Fluid	
<p style="text-align: center;"><b>Abstract</b></p> <p><b>Objectives/Goals</b> I am determining which golf ball dimple pattern travels the fastest through a fluid.</p> <p><b>Methods/Materials</b> I took 5 different patterned golf balls and dropped them in a 1.8 meter long tube filled with water. I dropped each golf ball into the tube 15 times and timed how long it took to go from the start line to the end line.</p> <p><b>Results</b> The different golf ball dimple patterns did effect the travel time through a fluid. The golf ball with 4 large circles and one small circle traveled the fastest while the golf ball with no specific pattern and a variety of dimple sizes traveled the slowest.</p> <p><b>Conclusions/Discussion</b> Having circle shaped dimples with little gaps between the dimples allows for better fluid flow around golf ball. The ball that traveled the slowest had larger gaps between the dimples which slowed down the golf ball as it traveled through the fluid.</p>	
<b>Summary Statement</b> I found that different dimple patterns do effect the time it takes for a golf ball to travel through a fluid.	
<b>Help Received</b> None. I designed and tested by myself.	