



**CALIFORNIA STATE SCIENCE FAIR  
2010 PROJECT SUMMARY**

<b>Name(s)</b> <b>Fiona C. Blackburn</b>	<b>Project Number</b> <b>S0203</b>
<b>Project Title</b> <b>Floating Cylinders</b>	
<b>Abstract</b> <b>Objectives/Goals</b> The purpose of this experiment was to determine how the aspect ratio of a floating wooden cylinder affected its tilt angle. <b>Methods/Materials</b> To conduct the experiment painted cylinders with different aspect ratios were floated in bleach. Over time a line appeared on the cylinders marking how they floated and then trigonometry was used to calculate their tilt angles. <b>Conclusions/Discussion</b> Various unsuccessful approaches were tried to measure the tilt angle before the method used here was devised. With this information gathered it was concluded that smaller aspect ratios of wooden cylinders will float with their circular cross-sections more parallel to the water, however the prediction that cylinders with the same aspect ratio will float the same regardless of their diameter was not proven accurate.	
<b>Summary Statement</b> My experiment explored how the aspect ratio of a floating cylinder affected its tilt angle.	
<b>Help Received</b> My mom helped me to collect and buy the necessary materials for this project. My dad supervised the use of power tools and worked with me to brainstorm alternate ways to obtain the tilt angle after the initial experiment failed.	