



**CALIFORNIA STATE SCIENCE FAIR
2007 PROJECT SUMMARY**

Name(s) Sara Seto	Project Number S0222
Project Title Water Velocity: Flowing through Tubes	
Objectives/Goals What are the factors that contribute for water velocity in different conditions and circumstances? I added direct mass pressure and created a siphon to conduct this experiment.	
Abstract	
Methods/Materials Materials: Wood (For boxes)- Different Lengths of Hose- Bags of Sand used to measure: 200.0g ,300.0g, 400.0g, 500.0g - (2) 1000ml beaker Procedure Experiment 1 -This procedure will be done with the box on a slightly elevated surface 30.0cm at most.1. Prepare Ziploc bag with straw and place into Box A 2. Add water into Ziploc bag and seal shut with no air inside 3. Place Cap A on top of the bag and box and add enough sand to create 200.0g of pressure 4. Hold the 1000ml beaker underneath the straw 5. Measure how much water dispenses in a 30 second time span 6. Record volume of water 7. Conduct 20 trials and record volume of water 8. Carry on steps 1-9 but increase the mass to create 300.0g, 400.0g, and 500.0g 9. Conduct steps 1-10 but change to Box B and Cap B Experiment 2 1. Cover both boxes with cellophane to create a bag within the boxes 2. Cut hose into lengths of 0.85m, 1.35m, 1.85m, 2.35m 3. Place Box A at a height of 0.5m from the ground 4. Place hose from Box A towards the ground into a 1000ml beaker 5. Suck the end of the hose closest to the beaker just enough for water to begin flowing. Hold onto tip of hose.6. Measure how much water dispenses in a 30 second time span 7. Record volume of water 8. Conduct 20 trials and record volume of water 9. Carry on Steps 1-10 but change hose length to 0.85m, 1.35m, and 1.85m. Conduct steps 1-10 but change to Box B	
Results For the mass pressure the 200g experiment went according to my hypothesis, but the other 3 the larger box dispensed more water. For the siphon all but the 0.5m hose dispensed almost the same amount of water. With a siphon equation, they had relatively the same constant.	
Conclusions/Discussion My conclusion is that pressure is directly related to volume. I also know that height is a factor in siphons, increasing the velocity of the water flow.	
Summary Statement I investigated water velocity due to different kinds of pressure.	
Help Received Dad: Cut wood. Mom: helped trials.	