

Name _____ Date _____

Bottle Flipping Lab

Question: What are the ideal conditions to maximize the success of flipping a bottle? Specifically, how much water should be in the bottle for it to be most likely to flip?

Materials: Water bottles, water

Hypothesis:

Procedure:

1. Measure the volume of your water bottle. Bottle volume = _____ mL
2. Empty your bottle and fill it with 50 mL of water.
3. Decide on a method for flipping the bottle (standing/sitting/kneeling, table/floor, holding top/middle/bottom). Use this same method for every trial.
4. Flip the bottle 10 times and record your results in the table below.
5. Add 50 mL to the bottle (it should now contain a total of 100 mL). Flip the bottle again 10 times and record your results.
6. Repeat step 5 until you have completed the table below.

Volume of Water	Success	Failure	Percent Success
50 mL			
100 mL			
150 mL			
200 mL			
250 mL			
300 mL			
350 mL			
400 mL			
450 mL			
500 mL			

Analysis/Conclusions:

Compile your results with the rest of your class. Create a bar graph to represent the class data. What conclusions can you draw about the relationship between the amount of water in the bottle and the flip success percent?