

## The Most Amazing Molecule - Student Journal

Name: \_\_\_\_\_

### Part 1: Pennies and Surface Tension

- (1.) Predict the number of pennies that the glass of water will hold before it overflows.
- (2.) Calculate the number of pennies that the glass of water actually holds.

Penny Prediction	Penny Results

- (3.) Was your prediction more or less than you expected? Were you surprised by your results?



- (4.) Write your data table on the board and then compare your results with the results of other groups. Why do you think that different groups obtained different results?

- (5.) After discussing the properties of water, explain why the cup was able to hold so many pennies before it overflowed.

## Part 2: Mentos and Soda Demonstration

(1.) Brainstorm a list of all the ingredients that you think are found in soda.



**Stuff in soda:**

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(2.) Predict what you think will happen when the Mentos are added to the bottle of soda.

(3.) After watching the reaction and discussing it with your teacher, explain in your own words why you think the soda reacted the way it did.

(4.) In your own words, write a paragraph to explain why you think water is indeed a most amazing molecule.

(4.) Evaluate the environmental impact from each type of peanut. Is the peanut easily biodegradable or will it need to be thrown out in the garbage after use? Also consider the cost of each type of peanut as indicated in the table.

Type of Peanut	Easily Biodegradable		Cost/bag
Cornstarch	Yes	No	\$14
Styrofoam	Yes	No	\$12
Dyed Cornstarch	Yes	No	\$60

(5.) Consider the peanut's ability to protect product, its environmental impacts, and its cost and arrive at a conclusion in your group. Which of the three factors (protection, environmental impact or cost) was most important to your group? Which peanut will you use? Explain your answer.

(6.) Are there any steps you could take in your life to reduce the amount of garbage you produce? List three in the space below.

