

Names: \_\_\_\_\_

## Double Stuff Oreo Lab

### Research Question:

Is a Double-Stuff Oreo cookie really “double the stuff” of a regular Oreo cookie?

### Purpose (why are we performing this lab?):

To evaluate the marketing claim of a Double-Stuff Oreo cookie.



### Background information:

There are many ways that scientists could design a lab to test this scientific question. We will be testing it by measuring the mass of each cookie and the cream filling. Mass is the amount of matter in an object and is measured by using a triple beam balance or an electronic scale.

### Hypothesis (an educated prediction of what is going to happen and why)

If the mass of a regular Oreo and a Double-Stuff Oreo are measured, then the Double-Stuff will contain \_\_\_\_\_ the mass of filling than the regular Oreo, because

\_\_\_\_\_  
\_\_\_\_\_

### Variables

Independent variable (what you manipulate/change)

\_\_\_\_\_

Dependent variable (what you measure/count)

\_\_\_\_\_

3 Constants (what is the same for both Oreos)

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Control (what are you comparing to)

\_\_\_\_\_

### Mass of the Oreo

#### Procedure

- Obtain the following materials from your teacher:
  - An electronic scale
  - 3 regular Oreos
  - 3 Double-Stuff Oreos
  - Plastic knife
- Carefully twist off one side of the cookie from both types of Oreo. Make sure that all of the filling is on one cookie. Use a plastic knife to transfer any filling that got stuck.
- Measure the mass of the cookie with the filling on it for both cookies using the balance. Record in data table using grams.

4. Measure the mass of each cookie with no filling on it using the balance. Record in the data table using grams.
5. Calculate the mass of stuff by subtracting the mass of the cookie from the mass of the cookie + stuff. Record in your data table using grams.
6. Repeat steps 3-5 two more times for each type of cookie.
7. Using the data table, graph the results as a bar graph.

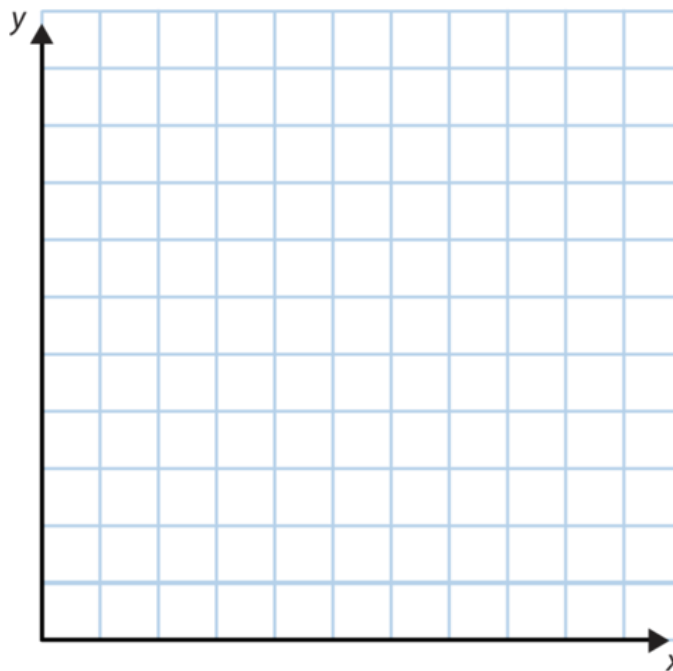
**Data and Observations**

**Data Table**

	Trial #	Mass of Cookie + Stuff	Mass of Cookie	Calculated Mass of Stuff
Regular Oreos	1			
	2			
	3			
			Average Stuf	
Double Stuff Oreos	1			
	2			
	3			
			Average Double Stuf	

**Graph:** Create a bar graph using the averages of the data above. All graphs must have a title and labels on the x- and y-axis. The independent variable goes on the x-axis and the dependent variable goes on the y-axis.

Title: \_\_\_\_\_



**Conclusion:** Write a conclusion using Claim, Evidence, Reasoning to evaluate the claim that Double-Stuf Oreos are double the stuff of regular Oreos.

Claim (make a statement that answers the question): \_\_\_\_\_

\_\_\_\_\_

Evidence (in a sentence, explain the evidence you collected to support your claim): \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Reasoning (explain, using background information, how your evidence means your claim is correct):

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_