



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

## How Much of a Banana is Edible?

Description: You will sample several bananas. From your investigation you will develop a formula relating the edible part to the total mass of the banana.

Hypothesis: \_\_\_\_\_

Materials:

- 1 banana per student
- Triple Beam Balance
- Calculator

Procedure:

- 1) Predict and record the edible percentage of your banana(s).
- 2) Measure the mass of the unpeeled and peeled banana and record the results in the data table.
- 3) Find the ratio of the edible part to the total mass by dividing the mass of the peeled banana by the mass of the unpeeled banana.
- 4) To convert this figure to percent, multiply the ratio found by 100.
- 5) Graph the percentage of your banana that is edible on the graph.
- 6) With your group, develop a mathematical formula that represents the edible portion of the banana.

Data Collection.

	Total Mass (g)	Mass of Peel (g)	Mass of Edible Part (g)	Ratio of <u>Edible</u> (g) Total (g)	% of Banana that is edible
Banana 1					
Banana 2					
Banana 3					
Banana 4					
Sum					
Average					

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Ratio of Edible Part

	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Banana 1											
Banana 2											
Banana 3											
Banana 4											
Average											

Mathematical Formula: \_\_\_\_\_

Conclusion: \_\_\_\_\_

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

Further experiments.

1. Sample several other Foods. From your investigation develop a formula relating the edible part to the total mass of the banana.
2. Many Foods are packaged in plastic, aluminum, & other materials. This packaging material adds to the weight & cost of many manufactured Foods. Sample several packaged Foods. From your investigation develop a formula relating the edible part to the total mass of the banana.