

Beam Balance Mass Lab

Name _____ Period _____ Date _____

Problem: Do you think you can accurately measure the mass of lab objects using the beam balances?

Research: What do you already know about beam balances? If you don't know anything, take an educated guess as to how they work.

Hypothesis: How close will you be to the actual mass of your objects when comparing your balance totals with an electronic scale?

1. Team data: Perfect = 10/10, Most = 7-9, Some = 5-6, Few = 3-4 correct (circle one)
2. Class data: Perfect = 10/10, Most = 7-9, Some = 5-6, Few = 3-4 correct (circle one)

Experiment: Use precision and accuracy when measuring the mass of a variety of lab objects listed below? First complete the left column. Columns 2 and 3 will be as a class.

Object	Mass (g)	Actual Mass (g)	# students to correctly measure
Small Beaker			
Small Flask			
50 ml Graduated Cylinder (empty)			
50 ml Graduated Cylinder + 50 ml water			
50 ml of water			
1 ml of water			
Metal bar A			
Metal bar B			
Metal bar C			
Metal bar D			
Object of Choice			

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Conclusion: What was the main point of the experiment? What was your hypothesis? Was it supported or rejected? Why do you think so? What are some tips to remember when taking measurements using a triple beam balance? What did you learn overall?

Follow-up: What effects will the concept of MASS have on your rocket? Explain and provide an example.

What is the difference between MASS and WEIGHT? If you do not remember my discussion on this, be sure to look it up in your textbooks or online (online sources must be listed in your answer).

Parts of a Triple Beam Balance: Label each part of the balances used in this lab.

