

Name: _____ Class: _____ Date: _____

INTEGRATED PHYSICS & CHEMISTRY MASS VERSUS WEIGHT

PROBLEM: What relationship exists between mass and weight?

HYPOTHESIS: _____

MATERIALS: Spring Scales: 2.5N, 5N, 10N, 20N; graph paper; hooked weight set in grams

- PROCEDURE:**
1. Using the appropriate spring scale, individually attach each mass listed in the data table below.
 2. Record the weight in Newtons of each mass in the data table.
 3. Make a Weight vs. Mass Graph on the back of this paper.

OBSERVATIONS:

MASS IN GRAMS	WEIGHT IN NEWTONS
50g	
100g	
200g	
500g	
1000g	

QUESTIONS:

1. 1000g = _____ kg
2. 1 kg = _____ Newtons
3. What two factors affect the weight of an object?
A. _____ B. _____
4. On the moon, would your weight be different than what it is on the earth? Explain.
5. On the moon, would your mass be different than it is on the earth? Explain.

6. Using your graph....

a. what is the weight of 400 grams? _____

b. what is the weight of 700 grams? _____

7. Using your graph, what is the mass of 3 Newtons? _____

CONCLUSION: Based on your observations, re-answer the original problem stated at the beginning of this lab.

GRAPH: Remember to label your axis and make a key!!!

