

MODEL LAB REPORT FOR FORCES

Name Pd 3 4/9/12

Title: Forces

Focus Question: How can we determine the amount of force exerted by objects with different masses?

Purpose: To understand that different objects with different masses exert a force.

Background: Some objects exert different forces because they have different masses.

Hypothesis: If we use a spring scale, then we can determine that the object with a greater mass will exert a great force on the spring scale.

Materials:

Spring Scale
200 gram mass
50 gram mass
Metal block
Metal clip
Blue car

Procedures:

1. Attach the object to the spring scale. Hold the spring scale from the top hook and allow the object to hang. Read and record the force in Newtons. Record the force in the data table.
2. Read and record (data table) the mass in grams.
3. Repeat above steps for remaining objects and record in data table.

Data:

Object	Mass (g)	Force (N)
200 gram mass		
50 gram mass		
Metal block		
Binder clip		
Blue car		

Data Analysis:

Note to self- make a graph - Graph mass vs. force. (Include title, units, and labels) – do not type in your lab report!!!!!!!!!!

Conclusion:

From this investigation, I learned that.....

Note: answer questions a – c from lab report handout in paragraph form. See sample conclusion.

Conclusion Questions:

(NOTE: Use Q & A format)

1. Write a statement that shows a relationship for your data COMPARING the object, mass, and force.
a. The relationship between the mass and force of the object is/shows that.....
2. Assume you were to attach the car to the spring scale and pull it across the lab table, then pull it across a piece of sand paper.
 - a. Identify your control group:
 - b. Identify your experimental group: _____
 - c. What do you think will happen to the force required when the objects are pulled on different surfaces?_____
 - d. Where will the force be the greatest to move the object (in the beginning, middle, or the end of the motion)?_____