Thursday, March 7, 2019

Your Learning Goal: Students will be able to distinguish between mass & weight. Explain how gravity depends on mass and the distance of the object from Earth.

Table of Contents:

Rules of (Gravitational) Attraction – 38L + R

- Catalyst (38L):Are mass and weight the same thing? Why or why not?

Homework:

Quiz Retake Pack time Tuesday 3/12!!

Agenda:

1. Catalyst
2. Lab 1, 2 & 3
3. LEAF

Table of Contents

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Catalyst:

Are mass and weight the same thing? Why or why not?

38L

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Rules of (G) Attraction

38R

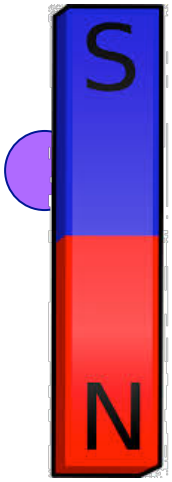
Lab # 1 Sliding Attracted Magnets

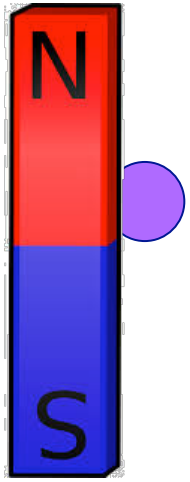
Trial No.	The distance the magnet traveled cm	Average Distance (cm)
Trial 1:		(Trial 1 + Trial 2) / 2
Trial 2:		

1. Draw two dots on your notebook page 10cm apart
2. Lay one magnet on one dot, the other magnet on the other dot.
3. Slowly slide one magnet towards the other across the paper.
4. When the magnets are attracted, calculate the distance the magnet was able to travel by itself.
5. Repeat twice.
6. Take the average of your two trials.

Lab # 1 Sliding Attracted Magnets

Trial No.	The distance the magnet traveled cm	Average Distance (cm)
Trial 1:		(Trial 1 + Trial 2) / 2
Trial 2:		





Lab # 2 Forces of Attraction

Write observations on how it feels to separate magnets at:

Distance Apart	Describe the Tug as you try to pull them apart
Together 0.0 cm	
Roughly 0.5 cm	
Roughly 1 cm	
Roughly 5 cm	

Lab # 3 Falling Objects

Height (m) measure to 100ths place counting centimeters/millimeters = **2.285m**	
Time Trial 1 =	**Average of trials**
Time Trial 2 =	
Time Trial 3 =	

Solve for acceleration

$$\text{Acceleration} = \frac{2 \times \text{Height}}{\text{Time}^2}$$

$$\text{Acceleration} = \frac{2 \times (\ 2.285\text{m}\ )}{(\qquad)^2} =$$

We are going outside!

1. Stand at the top of the risers
2. Time how long it takes the foam ball to hit the ground
3. Repeat 3x and take the average
4. Plug it into the acceleration equation

Catalyst:

Are mass and weight the same thing? Why or why not?

LEAF:

Explain how gravity works. Include: **mass, weight, distance between objects, acceleration constant.**

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Rules of (G) Attraction

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