

Name _____

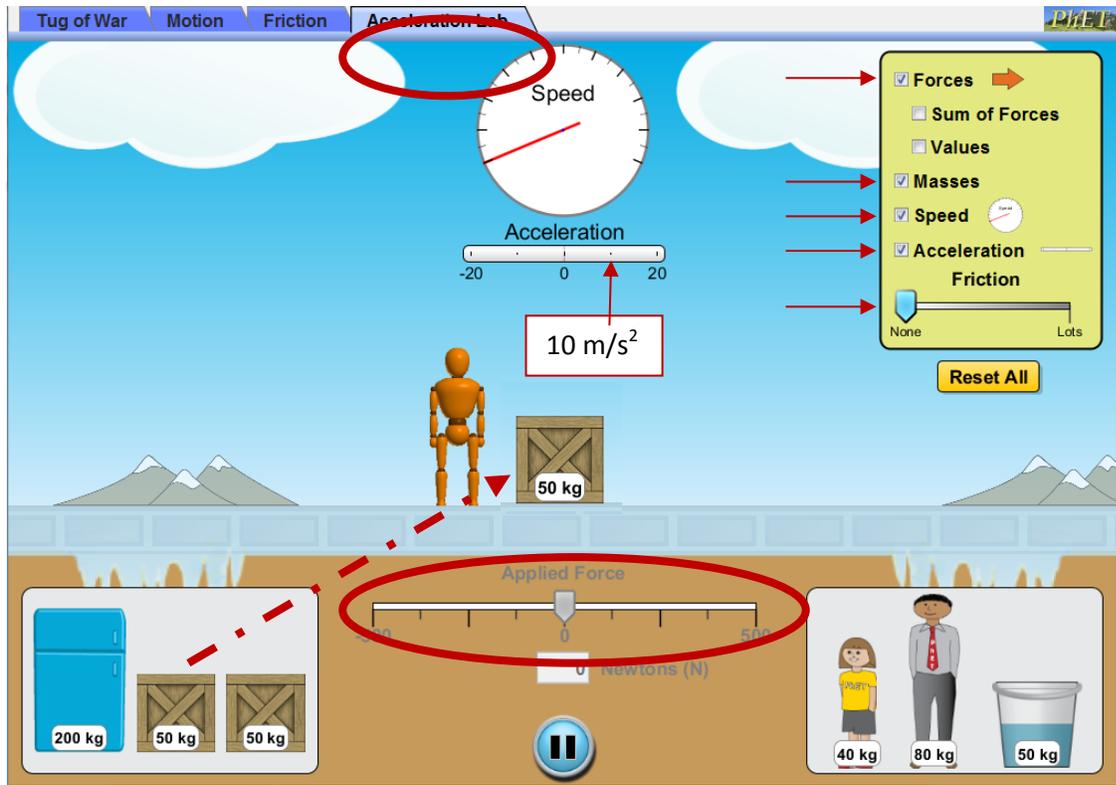
Period _____

Date _____

Forces and Motion

Lab #2

- 1) Find today's date on my calendar. Click on the Forces Lab 2 and then click [simulation](#). Open the file that downloaded.
- 2) Click on the acceleration tab at the top of the simulation
- 3) Click the forces, masses, speed, and acceleration boxes so they are checked
- 4) Slide the friction to none.
- 5) Drag a box onto the track.
- 6) Use the slider under the frozen track to push the box (See below):



- 7) Use the simulation to answer each of the questions below (Use complete sentences to answer each question:
 - a. How do you make the box speed up?

I make the box speed up by _____

- b. How do you make the box move at a constant speed?

I make the box move at a constant speed by _____

- c. Once the box is moving how do you make it stop?

d. Once the box is moving how do you make it change direction?

e. Describe the motion the box undergoes when you make it change direction.

8) Any change in motion is called acceleration. When does the box accelerate?

9) What is the acceleration of each item?

I did the first one. Check my answer. Then find the acceleration of all the others.

Object	Mass	Acceleration	Force
Young Woman	40 kg	10m/s ²	400 N
Man in Suit	80kg		400N
Bucket	50 kg		500N

10) Use the table above.

a) How do you find force?

Force = _____ x _____

b) How do you find acceleration?

Acceleration = _____

c) How do you find Mass?

Mass = _____

11) How much force would the orange man need to use for the 200kg Fridge to accelerate at 5m/s²?