Physics **Newtonian Physics** **Mr. McMullen**

Names_____ _____ Date _____ Period ___

Newtonian Physics – Determining μ Lab

In this activity you be determining the coefficient of sliding friction between a wooden box and a wood plank. Your accuracy in measurements and calculation will be a determining factor in your grade. Make all measurements as precise as possible.

Measure the weight of four masses and a box. Record the box number and board number you are using.

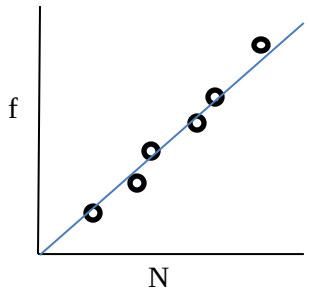
	Weight
Mass #1	
Mass #2	
Mass #3	
Mass #4	
Box	

Box Number	Board Number

Pull the box with varying amounts of masses inside, over a wooden board by hooking it to a newton scale. Start at the same spot on the board each time. Record the force needed to begin to move the box. A small piece of index card on the scale will aid in your reading. The force indicated on the newton scale is the frictional force (f). The sum of the weights and the box will be the normal force represented by N.

N	f

Graph f vs. N and determine the slope of the line



The slope of the line represents μ

Bring your graph and all data, represented on the back of the graph in a neat table form, to your teacher.
You MUST leave all weights and board at your lab station so that your answer may be evaluated.