

Simple Machines Contest

Background:

- Know the 6 different types of Simple Machines (PPT)
- Know and be able to manipulate the equations for (PPT)
 - Metric Conversions
 - Mechanical Advantage
 - Work
 - Ideal Mechanical Advantage
 - Efficiency

Objective:

You will be able to tell me the mass (between 50 and 500 grams) of an unknown object using different simple machines.

Requirements and Other Information:

1. Complete and pass the "Simple Machines Worksheet" BEFORE starting labs
2. Collaboratively perform labs relating to 3 of the simple machines
3. Complete the worksheets that accompany the labs
4. Perform your own experiment(s) to help you achieve the objective
 - a. You must record and graph data
 - i. Must be in a typed table
 - ii. Graph MUST be labeled, titled, etc.
5. You only get **ONE** chance to determine the mass of the unknown objects

Possible Lever Combinations

	Fulcrum(cm)			Mass Location (cm)	
1 st Class	25	50	75	End	
2 nd Class	25	50	75	End	25
3 rd Class	25	50	75	End	25

Incline Plane Angles

Angle (°)	15	30	45
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Pulley

Data on ALL 3 Setups