Energy Lab

This lab must be word processed.

Purpose: to determine the relationship between kinetic and potential energy and to verify the law of conservation of energy.

Procedure:

1) Open interactive physics 2000, NOT IP PLAYER.
2) Click from the handout folder on I drive locate handout, science, strachan, physics 11 folder then open energy1.
3) Run the experiment and sketch the graphs, be very careful, as I will mark these for accuracy.
4) Complete a table like the one below in your report:

	Potential Energy (J)	Kinetic Energy (J)	Total Energy (J)
When pendulum is highest			
When pendulum is lowest			
Any point between high and low			

5) Mark on your graphs the points when the pendulum is at its high points, and when its velocity is highest. Make sure the difference can be clearly seen.
6) Close this file and open energy3..
7) Run the experiment, carefully sketch the graphs.
8) Record on your graph of Vy the points when the mass is at its highest point, and lowest point.
9) If the mass is 5.0 kg, calculate the Ek at its highest value.

Discussion:

1) In the first experiment was the value of Ek highest, lowest or somewhere in between when Ep was at a maximum?
2) In the first experiment where in its path was the mass when it had its highest velocity?
3) In the 2nd expt. why is the maximum velocity not at the low point of the object's path?
4) Where does the Ek go when the mass is falling in the 2nd expt?
5) Is the Law of Conservation of Energy violated in any expt?

Your meaningful conclusion should include something about the Law of Conservation of Energy, and the relation between Ep and Ek in each experiment. When your are fully finished close all applications, DO NOT SAVE CHANGES IN INTERACTIVE PHYSICS!!

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Sample only do not use this table.

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