Name _____ Period _____ Date _____

Potential and Kinetic Energy Conversion Lab

This assignment is due at the beginning of class on Thursday, October 29, 2009, as a summative grade. Late work will be accepted for two days after the due date, with a penalty of 10 points per day.

1. A marble, a ping-pong ball and a tennis ball are all dropped from the same height (100 cm), and the resulting bounce height is recorded, as follows:
   Marble: _____ cm; Ping-Pong Ball: _____ cm; Tennis Ball: _____ cm.
   Write a short claim, evidence and reasoning paragraph to explain the results:

2. A pendulum with a swing radius of 150 cm is released from a position that is 50 cm to the side of the plumb position, and allowed to swing back and forth until it stops. Marks are placed on the white board behind the pendulum at the right end point of each swing, until the pendulum comes to a stop. Write a claim, evidence and reasoning paragraph to explain the result.

3. A marble is released from increasing heights on a "marble roller-coaster" made of foam pipe insulation until the marble is able to complete the complete track without running out of energy. The height of the second and third hills are _____ cm and _____ cm above the floor, respectively. The height of the starting point from which the marble successfully climbed both the second and third hill was _____ cm above the floor. Write a claim, evidence and reasoning paragraph to explain the result.