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AP Physics

Mrs. Geddes

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Purpose: To find Kinetic Energy of the marble launches by using 1/2Kx^2 = -du/dx. Also, to find the relationship of potential energy and the springs compression and derive an equation of spring force versus compression distance.

Equipment: A marble launcher, the marbles, a meter stick, safety glasses, and my iPhone to record the data.

Procedure: First, we made a paper background and marked it so we could measure how high the marble went. Then we shot the marbles straight up using the 5 different levels and recorded the data. We used 3 to 4 trials for each level to make the data more accurate. We subtracted the height of the shooter from the data. Lastly we put the data into excel.

Conclusion: We found all of the things stated in the procedure. I found while gathering the data the shooters were inconsistent. I believe this could have been prevented if we used several different shooters, as well as making sure they were lubricated and in better condition. Lastly, the data was recorded from eye level, which could possibly skew the heights recorded.