Bouncy Ball Lab

**Purpose**

* The purpose of this lab is to figure out how much energy is lost each time a bouncy ball hits the ground and to find out where this energy is lost.

**Materials**

* You will need to following to complete this lab: Bouncy Ball, Meter stick, calculator, blank paper, pencil, and level ground

**Theoretical Calculations**

* In order to make any theoretical predictions you must know that around \_\_\_\_% of the total energy is lost per bounce.
* Now create a few predictions of the height the ball reaches for the first seven bounces and find the total work.

**Experiment**

* Drop the ball from one meter high and measure the height of each bounce for only the first seven bounces
* Then calculate how much energy is lost per bounce and determine what it is transferred into.
* Create a graph of your data and use the number of bounces on your x axes and potential energy for your y-axis.

**Additional Questions**

1. What is the potential energy transferred into?
2. What is the slope of your line?
3. What does the slope of your graph represent?
4. What is the percent difference between your slope and our slope?