

# A Day at the Amusement Park Lab Observation Sheet

<b>Question:</b> Using what you know about potential and kinetic energy, can you design a roller coaster so that your car (BB) can make it all the way to the end of the ride?		<b>Terms:</b>  Energy  Work  Potential Energy  Kinetic Energy (K.E.)  Law of Conservation of Energy  Energy Transformation  Gravitational Potential Energy (G.P.E.)
<b>Materials:</b>	<b>Hypothesis:</b> (What I think will happen)	
<b>Method:</b> (What I did) Note: You should include a diagram of your final roller coaster design here!  Independent Variable(s): _____ Dependent Variable(s) _____        First we did this...  <hr/> <hr/> <hr/> <hr/> <hr/>		<b>Formulas:</b>  G.P.E.= Height x Weight  K.E. =  $\frac{\text{Mass} \times \text{Velocity}^2}{2}$



Name: \_\_\_\_\_

Period: \_\_\_\_\_

**Results:** (What really happened?)

**Was my hypothesis Correct?** \_\_\_\_\_ **Yes** \_\_\_\_\_ **No**

**Conclusions:** (What did I learn?)

Where were the greatest amounts of potential and kinetic energy located in this roller coaster? \_\_\_\_\_

What could you do differently to raise the amount of total energy in a roller coaster? \_\_\_\_\_

What did you find to be the most important part of your roller coaster in getting the BB to make it through the ride? \_\_\_\_\_

**Notes:**