Labeling your Rollercoaster

In this activity, you will be revisiting and labeling your rollercoaster with different signs.

First Label (make 1):

Marking the maximum potential energy of your rollercoaster. Find the highest location of your rollercoaster. This is where you have the maximum potential energy.
To calculate your potential energy, you must calculate:

mass x 9.8 x the height of that location

Maximum Gravitational Potential [???] Joules

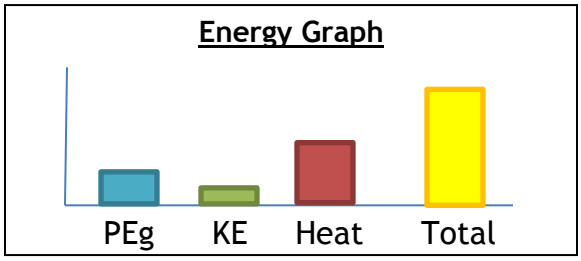
Second Labels (make 5):

The amount of potential energy that you have at the highest point is also equal to the amount of total energy at every single point. Create FIVE signs that match the one at right. Each of these should have exactly the same number as the above orange sign. Place these on any five locations

Total Energy [???] Joules

Third Labels (make 5):

These labels will show the types of energy that you have at several locations. You will create a bar graph of the different energy types. You should have FIVE total bar graphs that represent the five different locations that you placed your pink labels on.



How to make your energy bar graphs:

The “total” bar should always be the same size
The “PEg” bar should always be decreasing on the way down
The “Heat” bar should always be increasing on the way down
The “KE” bar will change based on speed
At any point, PEg + KE + Heat = Total

Look at the energy skatepark lab that we did to see examples.