Name:	
Date:	
Period:	

Roller Coaster Physics

 Go to <u>www.youtube.com/watch?v=Eh1P4adv6I</u> How does a roller coaster use Potential Energy to make the ride fun?

Why is the first hill on a traditional roller coaster always the tallest?

2. For the hypothetical roller coaster shown below calculate the Kinetic & Potential Energy for each point. Use a mass of 400kg as the mass of the car and its occupants.

Point	Formula	Substitution	Solve with units
A			
В			
С			
D			
Ε			

 Go to gated.jason.org/digital_library/4851.aspx Use the Coaster Creator and make a roller coaster. In the space below, draw the best roller coaster you created that did not fail. Be sure to include the Mass of the cars & height of the first hill.

4. Describe how roller Coaster designers use Potential Energy to fuel their designs and how they continuously transform this potential energy into kinetic energy and back into potential to be used again.

