Lori Young

Ms. Young

ICP - 5

6 November 2018

Roller Coasters

What is a roller coaster? I want YOUR definition -- NOT a definition found on Google. What is ONE reason people ride roller coasters? What is a SECOND reason people ride roller coasters? What is a THIRD reason people ride roller coasters? Do you like to ride roller coasters, why or why not?

Design

What did you learn about the height and shape of the first hill? Can all the hills be the same height? (HINT: Do hills get bigger or smaller along the track? Why?) What did you learn about the angle of the first hill? (HINT: Does the steepness of the hill count?) Why did you choose that exit path? What did you learn about the height of the second hill when compared to the first hill?

What did you learn about the shape of the loop? (HINT: Should it be oval or should it be round?) What else did you learn about loops? (HINT: Should it be the same height as the first hill or smaller?) How curvy should the tops of the hills and the valleys be? (Hint: Should you design sharp turns or smooth turns?) What did you learn about keeping all parts of the roller coaster on the track during the ENTIRE ride?

Energy and Force

How does potential energy relate to roller coaster design? How does kinetic energy relate to roller coaster design? How does Newton's First Law of Motion relate to roller coasters?

https://science.howstuffworks.com/engineering/structural/roller-coaster3.htm