



Going Over the Top

You might not get many riders to line up for the “Potential Energy-Kinetic Energy Exchanger,” but that gives a pretty accurate description of a roller coaster. Potential energy is high at the peaks and is converted to kinetic energy as the



cars plunge down the track. At the low points, the kinetic energy is high, which propels the car back up the track. Basic mathematical subjects such as calculus help determine the height needed to allow the car to get up the next hill, the maximum speed, and the angles of ascent and descent. These calculations also help make sure that the roller coaster is safe. No doubt about it—math keeps you on track.

Image courtesy of Amusement Today.

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