

Case Details

Case Title:

Roller Coaster Me Crazy

Author(s):

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Grade Level(s):

Middle School

Subject(s):

Physical Science

Summary:

The Magic Kingdom is opening a new Michael Jackson roller coaster ride. Unfortunately the roller coasters are not functioning properly. The roller coaster cars will not transition over the first ramp. The CEO is looking for engineers to fix the problem.

Suggested Citation:

Mitchell, D., London, L., & Summers, M. (2011). *Roller coaster me crazy*. Retrieved June 03, 2012 from Emory University, CASES Online Web site:
http://www.cse.emory.edu/cases/casedisplay.cfm?case_id=4199

Learning Objectives:

1. Apply the law of conservation of energy
2. Illustrate and demonstrate an understanding of energy transformations
3. Compare and contrast potential and kinetic energy
4. Explain and demonstrate the relationship between potential and kinetic energy

National/State Standards:

Georgia Performance Standards

- S8P2. Students will be familiar with the forms and transformations of energy.
- a. Explain energy transformation in terms of the Law of Conservation of Energy.
 - b. Explain the relationship between potential and kinetic energy