



# “DISNEY’S WORLD OF PHYSICS: PROPERTIES OF MOTION”

## PHYSICAL SCIENCE

**Location:**

Disney California Adventure™ Park in California

**Grade Levels/Ages:**  
 6th-12th, ages 11-18

**Program Length:**  
 3 hours

This program is aligned with National Standards.

### OBJECTIVE

*Disney's World of Physics: Properties of Motion* is a three hour program through *Disney California Adventure™* Park where sixth through twelfth graders gain an understanding of the real world application of physics in a theme park setting. Students will identify and define potential energy, kinetic energy, speed, velocity, and acceleration. They will have the opportunity to make observations, hypothesize, experiment, and come to a conclusion by exploring *Goofy's Flight School*, *The Twilight Zone Tower of Terror™ \**, and *California Screamin'*. *Disney's World of Physics: Properties of Motion* is sure to unlock their imagination and send adrenaline pumping as they go “Screamin’” through the principles of physics.

### KEY LEARNING HIGHLIGHTS

After completing *Disney's World of Physics: Properties of Motion*, students will be able to do the following:

- Apply a problem-solving technique to everyday situations
- Identify, define, and illustrate potential and kinetic energy
- Identify, define, and discuss speed, velocity, acceleration and friction
- Discuss and illustrate inertia
- Discuss and illustrate horizontal forces
- State and illustrate The Law of Conservation of Energy
- Articulate various forms of energy
- State Newton's First and Third Laws of Motion
- Articulate various careers associated with the study of physics
- Discuss the precise terminology of physics
- Discuss factors that may influence the roller coaster and attraction design process
- Discuss the utilization of magnets as compared to traditional roller coaster lift systems

### THE DISNEY DIFFERENCE

- Trained and knowledgeable *Disney Youth Education Series* Cast Members facilitate this high-quality and educationally sound program, while never forgetting that fun is a vital part of learning



Disney Youth Education Series programs are accredited by the Northwest Accreditation Commission.

\*The Twilight Zone Tower of Terror™: The Twilight Zone® is a registered trademark of CBS, Inc. and is used with permission pursuant to license from CBS, Inc.

All programs subject to availability. Program content, times, attractions, and locations subject to change due to inclement weather, availability, or group dynamics.