

THE SCIENCE OF DISNEY IMAGINEERING: GRAVITY

APPLIED SCIENCES

Designed For Students:
 Grades 6th-8th
 Ages 11-14

Program Length:
 2.5 hours

Park:
 Disney's Hollywood Studios®
 Meet at the flagpoles outside the Main Entrance

OVERVIEW

Join an Imagineering Associate to explore how Walt Disney Imagineering uses Newton's Laws of Motion to create multi-sensory experiences within Disney Theme Parks. Hands-on experiments challenge students to test the force of gravity and discover how our Imagineers are able to turn ordinary spaces into immersive spaces that challenge their perception of reality.

LEARNING OUTCOMES

Forces At Work

- Students are introduced to the Imagineering way of using science to tell a story
- Participants explore Newton's First and Second Laws of Motion.
- Students discover the difference between balanced and unbalanced forces

Gravity In Action

- Students will discover that gravity accelerates all masses at the exact same rate—even if these masses are very different
- Students discover how Walt Disney Imagineers combined Disney theatrics and Newton's Laws of Motion to create the sensations and effects of The Twilight Zone Tower of Terror™ attraction.

A Magnetic Attraction

- Students discover the difference between mass and weight
- Students explore Newton's Second Law of Motion and how $F=ma$ is just one of the scientific equations behind the excitement and thrill of Disney attractions
- At Rock 'n' Roller Coaster® Starring Aerosmith students uncover some "old" science being put to work in a whole new way

GROUP LEADER RESOURCES

A video overview of *The Science of Disney Imagineering: Gravity* is available on the Disney Youth Programs YouTube Channel.

Multi-media teaching tools that complement this field study, including The Science of Disney Imagineering DVD series and Roller Coaster Ride Builder whiteboard and computer application, are available at DisneyEducation.com.

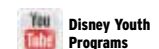
Please note that this program requires a minimum of 15 student participants.



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

All programs subject to availability. Program content, times, attractions, and locations subject to change due to inclement weather, availability, or group dynamics. Students must meet minimum age/grade requirements.

Start planning your field study today! Call 877-FIELDTRIP (877-343-5387) • Visit DisneyYES.com



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