

# AMUSEMENT PARK SCIENCE

**The PHYSICS behind the FUN!**

A Traveling Exhibition of  
**discovery center** MUSEUM

For more information contact:  
 Michael Rathbun  
 (815)972-2841  
 michaelr@discoverycentermuseum.org

Families will enjoy exploring the physics behind the fun at amusement parks when they experience the traveling exhibition **Amusement Park Science**. This fascinating interactive exhibition also includes a Family Fun Guide to further enhance the visitor's experience.



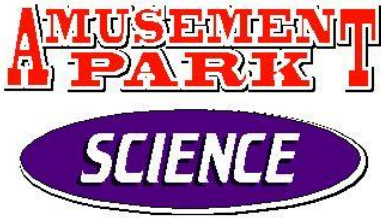
**Includes these exciting exhibits!**

- Bumper Blaster
- Create-A-Coaster
- Amusement Park Model
- Amusement Park Physics Kiosk
  - K'Nex Activity Area
- Wild Wheels Road Block
  - Magnetic Circus
  - Momentum Machine
- Wild Rides Video Kiosk
  - Bump-O-Ramma
  - Wacky Waves
  - Entry Kiosk
    - The Rotor



- ### Previous Venues
- Houston Museum of Natural Science – Houston, TX
  - The Discovery Museum – Bridgeport, CT
  - Children's Museum of Manhattan – New York, NY





1,800 square feet  
Rental Fee: \$13,000/12 weeks

Available Beginning  
Summer of 2014

A Traveling Exhibit of



711 North Main Street  
Rockford, IL 61103  
For more information contact:  
Michael Rathbun (815) 963-6769  
michaelr@discoverycentermuseum.org

## Exhibit Descriptions

### Entry

Newt, the exhibit mascot, welcomes visitors to Amusement Park Science. "Ticket Booths" are on lockable casters.

### Amusement Park Model

Constructed and donated by K'Nex, these working models represent classic and popular amusement park rides like the roller coaster, swings and Ferris wheel.

### Bumper Blaster

Two molded polyurethane cars are placed next to one another on steel tracks, visitors strike the cars with weighted pendulums. By experimenting with the force with which the pendulum strikes the cars, visitors can vary the distance cars travel.

### Create-A-Coaster

Visitors can experiment with potential and kinetic energy by setting up a roller coaster track. Hills and circular loops made from wooden tracks can be fit together in different combinations.

### K'Nex Activity Area

By working together, families can use K'Nex to build model amusement park rides or their own clever creations.

### Wild Wheels Road Block

This exhibit uses a pair of molded polyurethane cars and assorted "passengers" and parcels to demonstrate Sir Isaac Newton's First Law of Motion.

### Magnetic Circus

Challenges a family's skill with magnetism in a carnival setting. Acrylic cube with wooden bottom, painted steel base.

### Momentum Machine

Visitors can spin on a rotating platform, having fun while learning about the Conservation of Angular Momentum.

### Amusement Park Physics Computer Kiosk

A free-standing adaptation of a web page, controlled by a touch screen, allows visitors to learn about amusement park rides while simulating and internet experience.

### The Rotor

The rotor is a cylinder, driven by a hand cranked belt and pulley system that spins just like the amusement park ride. When the visitor pushes the lever to drop the floor, the passengers stick to the wall.

### Wild Rides Video Kiosk

Visitors can take a ride on actual amusement park roller coasters as seen from the riders perspective on a 30" video monitor. Each of the three coaster rides shown contains all the loops, spins and hair-raising plummets of the real ride, and, many visitors have commented that it has the same head-spinning, stomach-turning affect on the "rider"

### Bump-O-Rama

Round, molded polyurethane cars with rubber bumpers simulate the "action and reaction" of a bumper car ride.

### Wacky Waves

A hand cranked pulley and belt system rotate this cast acrylic clear container, half-filled with colored water, with two floats attached to the bottom. The spinning water forms a parabola, while the floats move toward the center. Demonstrates centripetal force.