



Spin: The Science of Rotation

is an exciting exhibit that explores the fun — and science — of objects that rotate.

Using interactive exhibits and real-life examples, guests of all ages will explore the science behind spinning toys, sports, transportation, space travel, entertainment — and even the Universe itself.

Spin includes **15 unique exhibit areas**, including:

The Human Centrifuge: Heads will spin as up to four guests sit in this innovative tub and push against a fixed wheel to explore how inertia works. Children and grown-ups alike will want to sit and spin to investigate how their efforts impact the effects of inertia.

Let It Roll: Guests are encouraged to join in friendly competition as they race various objects along the tracks. Who will win the race? Switch out objects by size and weight to explore how these changes impact the way things spin.

Laser Show: A laser light show is about more than just a rockin' sound track. Visitors will find out the science behind this visual entertainment by creating their own mini laser show.



Spin includes the following materials:

- Educational program materials
- Technical manual
- Marketing materials

Cost: \$20,000 for three months

Requirements: 1,500 to 2,000 sq. ft.

Catawba Science Center strives to offer the highest quality of support for all of its traveling exhibitions.

Contact CSC regarding assistance with set-up.



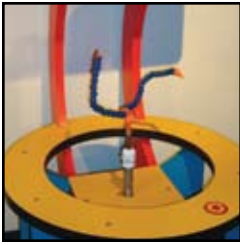
Entry Kiosk

Colorful entry kiosk contains a visitor-controlled mini laser light show that attracts and introduces patrons to the exhibit.



Coriolis Fountain

Visitors experiment with streams of water that curve as they move, demonstrating the Coriolis effect.



Air Thrusters

Air travels through a T-shaped tubing system. Change the orientation of the tubing arms to adjust the direction of escaping air and affect the rotation. NASA uses a similar principle to move and re-orient spacecraft.



Build a Top

Table includes tops of different shapes and sizes. Experiment and observe the amazing properties of these simple machines.



Dynamic Dots

A laser light beam rotates inside enclosed screens, projecting dots of light. Adjust the location of the laser to discover that the projected dot of light moves faster when the screen is far away and moves more slowly when the screen is closer.



Fast Lane

Move a car to ride near the outside edge of the wheel, or to ride near the center. Observe the car's speedometer to see that the car travels faster at the edge of the wheel than it does near the center.



Human Centrifuge

Visitors sit in a large tub with their backs against a curved wall. When they push against a fixed wheel in the center, the entire tub rotates. Visitors feel the effects of inertia while pinned against the wall of the tub.



Let it Roll

Visitors are encouraged to race various objects along the tracks. Objects include disks with weights on the outside and the inside, as well a disk with adjustable weights.



Fluid Centrifuge

Visitors turn a crank that rotates a flat rectangular transparent chamber filled with colored liquid. As the chamber rotates, the liquid rises along the outer walls of the chamber, forming a parabola shape.



Pit Stop

Change the wheels and adjust weights on two similar miniature cars. Race the two cars to observe the effects of wheel size and weight on speed.



Speed Limit

Crank a handle and turn a blower to make air travel through a pipe. Blowing air activates an anemometer. Crank faster, and the governor arms rise upward and outward, limiting the amount of air, thus regulating the anemometer.



Weighted Wheels

Spin two heavy wheels with the same size and weight, but different weight distributions. Compare how much force it takes to start each wheel spinning, how long each wheel continues to spin and how easy it is to make each wheel stop spinning.



Racing Rollers

Roll a pair of cones down parallel ramps constructed of moveable and interchangeable, segmented tracks.



Spin Speed

Visitors sit in a rotating, tilted chair and adjust their weight distribution to affect the chair's rotation.