Do you know how elastic collisions will make some balls bounce higher than others? Or how friction and weight affect the spin of a top? Can you calculate the optimal launch angle to catapult a ball towards the target?

Find out all of this and more when you explore the science of motion at the Sciencenter’s summer exhibition, “Roll, Drop, Bounce,” opening the weekend of April 20-21.

“Roll, Drop, Bounce” features 12 colorful, interactive exhibits designed to engage young scientists and their families in the fun side of physics. This active learning laboratory offers rolling wheels, dropping objects, bouncing balls and things on the move. In a hands-on way, you’ll explore kinetic energy, momentum, Newton’s Law of Motion and other physics principles.

No matter your age, you will think, experiment and play as you investigate catapults, balancing acts, balls racing on ramps and more. Experiment with kinetic energy (the energy of motion) to make a ball loop-the-loop. Design and engineer a mini-car, then race it down a ramp to discover which features make it roll the farthest. Test the cause and effect of friction with a puck on an air-levitation table, then experiment with angle to ricochet the puck into the goal. Build the coolest ball roller coaster with funnels, chutes and tubes!

As part of the exhibition’s opening weekend celebration, special hands-on activities will be offered on both days at 11 a.m. and 1 p.m.:

- **Balancing Act**: Create a balancing craft that appears to defy physics.
- **Catapults**: Engineer a machine to throw objects.
- **Helicopters**: Make and test a spinning helicopter.
- **Loop Gliders**: A Sciencenter classic: make and test a flying glider
- **Magnus Gliders**: Learn how the Magnus effect makes this toy hover in the air before gently gliding to the floor.

The “Roll, Drop, Bounce” exhibition and activities are included with regular museum admission. An exclusive Sciencenter members-only preview of the exhibition, with hands-on activities will be held from 6 to 8 p.m. April 19. “Roll, Drop, Bounce” is sponsored in part by Tompkins Trust Company.

To stay in-the-know of Sciencenter news and events, visit www.sciencenter.org, where you can also sign up for our monthly e-News. Like us on Facebook for exclusive Sciencenter photos and news.

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