

## Gears—Kid-Tested, Museum-Approved

When children are asked what they want to be when they grow up, the answers are undoubtedly diverse. Some immediately respond with doctor, lawyer or firefighter while others take a more creative approach with answers like spy, princess or superhero. The Addendum Staff has yet to come across a youngster that seems committed to a career in gear manufacturing.

The Discovery Center Museum, located in Rockford, IL is hoping to change this. With 250 hands-on exhibits, a planetarium, a news studio and an outdoor science park, the children's museum has a little bit of everything to educate young minds and highlight the appeal of science, manufacturing and engineering careers.

Two exhibits, particularly, hold interest to those reading this magazine. The *Gears Gears Gears* exhibit allows visitors to start a set of gears in motion and observe how the gears change speed, direction and force. The *Gear Wall* consists of a variety of colorful gears that children can arrange properly to spin a propeller extending above the wall.

"With both exhibits, visitors can observe things like how each gear affects the turning direction of the gear it engages as well as what happens when a large gear turns a small gear and vice versa," says Christopher Bernd, out-

reach coordinator. "Teachers can also bring their students to the Discovery Center for a special field trip featuring a class about simple machines."

The most exciting revelation might just be how interested the kids seem to be once they start work on the exhibits. "Our youngest visitors get a kick out of watching the gears on our *Gear Wall* and realize they caused the movement," Bernd says. "We often see children or whole families working together, adjusting gears, to make everything on the wall move."

In addition, the museum takes programs on the road to schools, daycares, libraries and park districts that focus on gears and pulleys.

"In our outreach programs, children love experimenting with the sequence and combination of gears. I often hear groans of protest when it's time to clean up and move on," Bernd says.

Along with gears and pulleys, the museum focuses on engineering and the benefits for children to get interested at an early age. For years, the Discovery Center has collaborated with local libraries, colleges and the Illinois Society of Professional Engineers to celebrate National Engineers Week in February. Activities include bridge building competitions, college and high school career nights and a program



Visitors can arrange the gears on the *Gear Wall* to spin a propeller (courtesy of the Discovery Center Museum).

called "Discover Engineering."

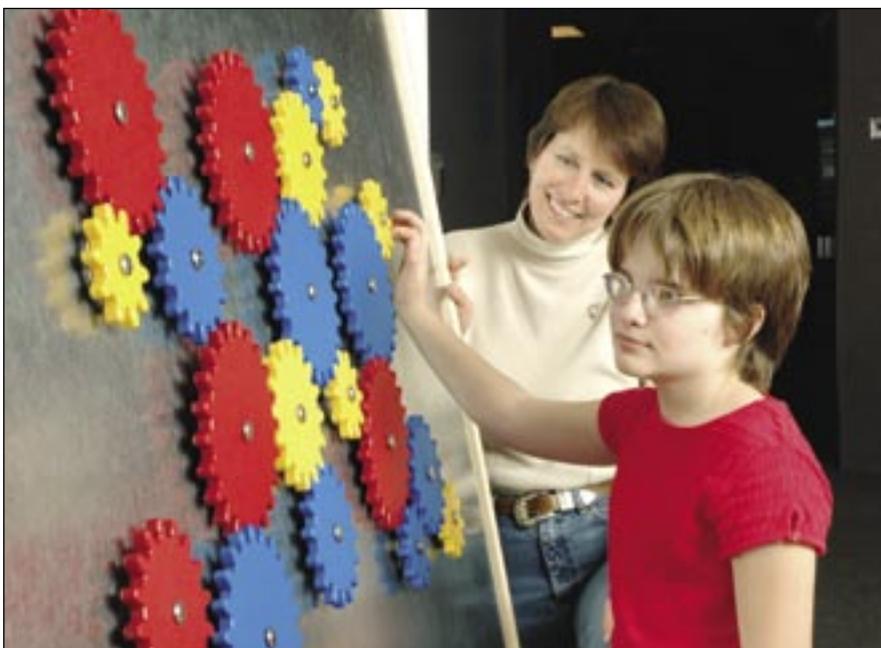
"This is where we invite local engineers and businesses that incorporate engineering and engineering technology in the products they produce, for what could be described as a hands-on expo for families," Bernd says.

This fall the museum is bringing several gear heads to Rockford, including Grant Imahara and Kari Byron from the Discovery Channel hit show *Mythbusters*. An electronics wizard, Imahara often makes the robotics for the show while Byron is the resident sculptor and model-maker. The two will be at the museum on Saturday October 3, for a 90-minute discussion focused on audience questions.

In the future, the museum plans to continue taking its exhibits on the road and getting the message out on career opportunities in manufacturing and engineering.

"If children can understand the process to produce something, they will likely appreciate the product more," Bernd says. "And an appreciation of that can lead to curiosity and learning."

For more information on the Discovery Center Museum, visit [www.discoverycentermuseum.org](http://www.discoverycentermuseum.org).



How do gears change speed, direction and force? Children learn first hand at the *Gears Gears Gears* exhibit (courtesy of the Discovery Center Museum).