

PHYSICS FOREST TAKES ROOT

Outdoors at the **Kidspace Children’s Museum** in Pasadena, California, beneath a canopy of native trees, kids and their families operate a giant lever, build a roller coaster, and blast a rocket into the air. They are learning principles of physics as they play in the 30,000-square-foot (2,790-square-meter) *Robert & Mary Galvin Physics Forest*, which opened last July after two years of development. The exhibition is designed to connect kids with nature, encourage them to seek out physics in their world, and inspire them to be the innovators and creators of tomorrow.

“Physics is the way we explain how the natural world works,” says Tim Scheidler, marketing manager at Kidspace. “We thought placing the concept of physics in a natural forest setting was an interesting juxtaposition. We wanted a space that was not restricted by architecture—a space where learners have to explore to take everything in. We also wanted to introduce children to new possibilities for being active outdoors.”

Thirteen interactive exhibits illustrate different principles of physics. For example, as kids and their families work together to design and build a roller coaster, they experiment with gravity, centripetal force, and momentum.



Left: The Roller Coaster exhibit challenges guests to create a track that gives a ball enough kinetic energy to reach and clear obstacles at the bottom. © 2012 Oscar Williams and Kidspace Children’s Museum

Below: Visitors to the *Galvin Physics Forest* experiment with centrifugal force in the *Wheel Roll* exhibit. © 2012 Oscar Williams and Kidspace Children’s Museum

Visitors apply water and air pressure to turn a plastic bottle into a rocket that shoots as high as 30 feet (9 meters). Giant levers, operated by teams engaged in a tug of war, demonstrate the power of mechanical advantage. The natural landscape includes places for parents to sit and for families to have lunch together.

Major funding from Galvin Family Foundations, California Cultural and Heritage Endowment, and Annenberg Foundation made the \$4.4 million exhibition possible. Other individuals, foundations, and corporations provided gifts of up to \$500,000. —Sharon Barry

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