

Explore Physics



WHAT IS PHYSICS?

Physics is the study of matter and how it interacts with energy and forces. It is a fun science to study with kids to explore light, sound, gravity and motion. To kick things off, let's talk about simple machines! One of the basic principles of physics is that there are six simple machines that can make our work easier. These machines are found in every aspect of daily life, and include the lever, inclined plane, wheel and axle, screw, wedge and pulley.

ONLINE

Here are ways to explore each of the simple machines:

- To explore inclined planes, help your child build ramps from a pipe or cut a pool noodle in half to race marbles and cars. Do the marbles move faster if the ramp is steeper? Why?
- Learn about wheels and axles as you explore wheelbarrows, tricycles and scooters. Use a wheelbarrow or toy dump truck to move dirt from one area to another.
- Explore wedges, screws and levers with child-size tools. As your child grows, try child-sized versions of the real thing. Make a pulley or purchase one at a hardware store and experiment with lifting buckets of sand, blocks and other objects.

USE PHYSICS TO MAKE ART

A pendulum is a mass hanging on a string. Using a pendulum to paint creates beautiful and interesting geometric artwork. It's a bit messy, but with the right preparation is sure to be a fun art time. Here's a video explaining how to set up your pendulum art: <https://youtu.be/2t20vL9HUh4>.

PHYSICS AND DANCE

Dancers use physics when they leap, spin and jump. They work with and against gravity, rotation, momentum. Watch these break dancers spin, flip and rotate in this video: <https://thekidshouldseethis.com/post/dance-and-the-physics-of-rotation-pbs-kids-whats-good>.

SEE THE SHOW



WED, JULY 29, 10-11AM ONLINE
THE PHYSICS EXPERIENCE



Physics is the study of how things move, interact, and exchange energy. The Physics Experience (TPX) show is a fast-paced, engaging educational program, filled with demonstrations that help people understand the world around them, while having fun! TPX is based on The Wonders of Physics (TWOP) program from UW-Madison. Since 1984, TWOP has educated and entertained thousands of schoolchildren, families, and the general public.



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