

Get Revved Up About Preschool Physics

You don't have to be able to fully grasp Newton's Laws of Motion to teach your child the fun of how force, energy, and mass affect the movement of objects.

Experiment with planes, angles, and inclines using everyday objects around you. Hardcover books quickly become ramps when propped against a stack of more books. Use small cars or other wheeled toys to test them out. Try different inclines and objects and compare the results.

What You Need:

- An open space
- Hardcover books of varying sizes
- Small wheeled vehicles or toys (different sizes and weights)
- Marble or small ball

What You Do:

1. Arrange a stack of books and prop another book against them to form an incline, with the book that is propped up resting on the top book of the stack.
2. Demonstrate the fun to your preschooler by releasing a vehicle down the slope. Allow them to try it a few times on their own.
3. Change the angle of the incline by adding or taking away books from the stack. What happens?
4. Experiment with different surfaces and compare them. Does the vehicle move faster or slower when the book cover is textured? What kind of book cover makes for the slickest ramp?
5. Continue trying different books for the ramp itself. Does a short book make the vehicle move faster or slower than a longer book?
6. Use a variety of vehicles and toys. Does the truck move faster or slower than the car? Why?
7. Now try the marble. How does a spherical shape move differently down the ramp than a vehicle with wheels?
8. Finally, you and your child can try some races. Lay a piece of string across the floor to represent the finish line. Set up your inclines...and go! No matter whose car crosses the finish line first, with this activity you've introduced your child to the fascinating world of physics!

