

Physics is Fun: DIY Marble Race

Age Group: All Ages

Materials and Equipment:

- Paper tubes – (what to do with all of your toilet paper rolls!)
- Pipe insulation or pool noodles
- Blocks
- Marbles, Puff balls, ball bearings, small rubber balls
- Paint tape or masking tape (gorilla tape if you are serious about sticking power)
- Scissors for making modifications to your tubes

The Science: Discuss kinetic energy, potential energy, and inertia and how they affect the design. Mechanical, Electrical, or Structural engineering degrees are disciplines you could use to become a roller coaster engineer in real life. <https://interestingengineering.com/which-engineering-degree-do-you-need-to-design-roller-coasters>

Because creativity is the biggest factor in this experiment you can try crazy ideas. See what works. Use the a wall, chalkboard, or refrigerator for support. Include other furniture as needed. See which objects use the course most effectively. Why?



Students at Charles Lindbergh Middle School: SWE-CI Adopt-A-School Program

