Marble Mazes

Activity Provided by

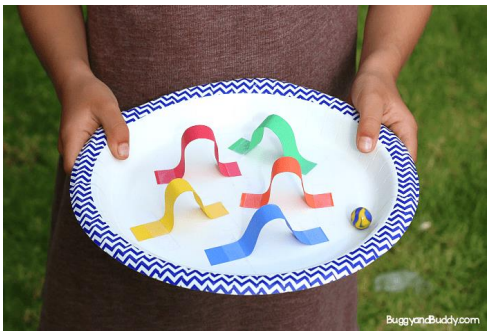
Maria Mitchell Association

Materials:

A paper plate, three strips of paper, tape
Optional: add straws, yard, or other materials to make your marble maze more challenging

Instructions:

1. Lay paper plate flat on your desk or table.
2. Cut out a strip of paper (or use one included in your kit) and put it on your plate where you want a tunnel to go.
3. Using tape or stickers, attach one end of the strip to the paper plate.
4. Now, slide the other end of the paper strip closer so you create a loop or tunnel that a marble can fit through then tape that side to the plate.
5. Repeat steps 2, 3, and 4 until you have all the tunnels you want
6. Place your marble on the plate, gently lift your plate off the desk with two hands and move it around until you get your marble through all of your tunnels.

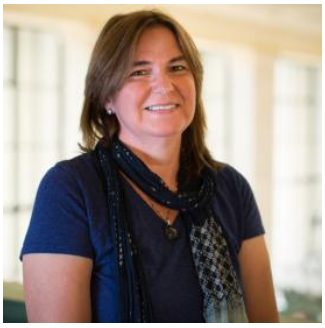


Creative challenge: Add straws, yarn, pasta noodles, or other items to make your marble maze even more challenging.

What are we learning?

When your marble is sitting still, it has **potential energy.** When you release the marble, it begins to move through the maze as you tilt the paper plate. This transforms the **marble's potential energy** into **kinetic energy**. **Kinetic energy** is the **energy of motion**. Any object that has mass and is moving has **kinetic energy**. So, when you are sitting still you have tons of potential energy and when you walk, jump, run, wiggle or dance, your potential energy is transformed into kinetic energy too.

A Real Life Scientist:



Dr. Angela Belcher runs the Belcher Lab at the Massachusetts Institute of Technology. She and her team seeks to understand and harness nature's own processes in order to design technologically important materials and devices for energy, the environment, and medicine. She was named Climate Change Hero by Time Magazine in 2007 for designing a new type of battery that can be grown instead of built and has a lot of potential for clean energy.

Participate and Win Prizes

Scan this QR code and fill out a quick questionnaire to be entered to win a prize for participating in the Nantucket Science Festival 2021!

Another way to win prizes: Video and Photography Contest!

Take part in this science festival **technology** challenge. Make a video or shoot photographs of you or others engaged in STEAM (Science, Technology, Engineering, Art, Math) activities, post it on FaceBook or Instagram with #ACKSciFest and tag @The Maria Mitchell Association and @Nantucket Community School and be automatically entered to win one of our great prizes. You can do this activity, choose another from https://www.mariamitchell.org/nantucket-science-festival or come up with your own experiment or challenge.

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