



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences –particularly students of color and girls – by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at www.projectexploration.org/stemathome.

In this activity, you will:

construct a maze for a ping-pong. Blow the ball through the maze and see how far you get!



Supplies Required:

- Ping-pong ball
- 1 piece of styrofoam
- 3 sheets of cardboard
- 4 paper cups
- 4 toilet paper rolls
- Tape
- Glue
- Scissors

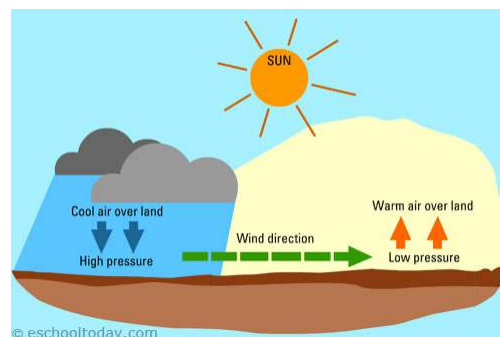
Video

Follow along as *The Wind Blew* is read aloud: <https://tinyurl.com/y5u6sdou>

Overview

In the story, a problem arises on a day when the wind nearly blows an umbrella, a kite, a wig, and other items out to sea. Wind is air in motion. It is produced by the uneven heating of the earth's surface by the sun. Since the earth's surface is made of various land and water formations, it absorbs the sun's radiation unevenly. Two factors are necessary to specify wind: speed and direction.

Using your own wind, blow the ping-pong ball through your maze. How far can you get?



Instructions

1. Problem: What do we want to solve? Look at the materials you have available. How will create a challenging maze.
2. Solutions: What are some ways to solve the problem? Construct a maze by taping obstacles, tunnels, bridges to a table top. Blow air through a straw to move a ping pong ball through the maze. Will the ping ball go through obstacles? Under bridges? Through tunnels?
3. Model: Build your design! Construct your maze on a table top or a large piece of cardboard.
4. Test: Does your model work? Blow the ping pong ball through the maze.
5. Reflect & Redesign: Was your model successful? Does it need to be redesigned? Can you make it from start to finish or do you get stuck along the way? If so, what can you change to make the maze pathway easier to navigate?

Additional Resources

1. Where does wind come from? <https://tinyurl.com/pr9d3yc>
2. Bill Nye the Science Guy on wind: <https://tinyurl.com/ms2496l>

Share It Out

Share on social media: Take a video of your maze! How fast can you get your ping-pong ball through? Share with family and friends and explain how wind is formed. Use the hashtags:

#WindMaze
#ProjectExploration
#StemAtHome

For more activities like this one, go to www.projectexploration.org/stemhome. If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



Call or text us for help: 312-772-6634

www.projectexploration.org