



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:

build a marble maze to serve as a model for the Fun Farm's annual corn maze!



Supplies Required:

- Graphic organizer
- Shoe box Lid/Cardboard
- Scissors
- Straws
- Marble
- Tacky glue
- popsicle

Video

Learn how corn mazes are built: <https://tinyurl.com/yy5nj3ps>

Overview

The Fun Farm is getting ready for the visitors to their punkin patch and its world famous CORN MAZE, which is a hit every year! However, the farmer who designs the corn maze every year is sick and is not going to have time to make it in time for pumpkin picking season. The team at the Fun Farm called upon you, one of PE's talented engineers, to help them plan a maze that will wow visitors this Fall. Are you up for the challenge?



Instructions

1. **Problem** - What do we want to solve?
How do we come up with a maze where people can explore with multiple routes and turns - it shouldn't just be a trail.
2. **Solutions** - What are some ways to solve the problem?
Draw your ideas and share with friends and family! What ideas do they have to make the maze more challenging or interesting? Which is your favorite?
3. **Model** - Build your design!
Take time to work with your shoe box and straws and recreate your drawing. Cut your materials to size before pasting it to the cardboard.
4. **Test** - Does your model work?
Place a marble in the entrance of your maze and tilt the cardboard box to make the marble navigate all the way to the exit! Did it make it out? Can you try making two marbles out?
5. **Reflect & Redesign** - Was your model successful? Does it need to be redesigned? Write on your graphic organizer what was successful and unsuccessful about their model. Does it need to be redesigned? If so, how? If you were to get to build your model in real life, what design or theme would you build? How long do you think it would take people to get out?

Additional Resources

Think About It! What was successful about your design? What was challenging? Is there more than one solution to your design or is there only one way to enter or exit? How difficult was it for your marble to get through the maze?

1. Learn about mazes with a master maze designer, Adrian Fisher: <https://tinyurl.com/y5u6w8nx>
2. See Illinois' largest corn maze at Richardson Farm in Spring Grove! Last year's corn maze theme was Apollo 11: <https://tinyurl.com/y3lya5dj>

Share It Out

Share on social media: Take a photo of your maze and share it on social media using the hastags:

#MazeDesign
#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

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