



Create a Marble Maze using LEGOS

Students will create a marble maze out of LEGO bricks.



Learning Objectives

Students will collaborate to create a LEGO marble maze. This fun activity encourages students to solve a design problem and encourages planning and creativity. Students can work alone, or in pairs.

Materials and Directions:

- Graph paper
- Colored pencils or crayons
- An assortment of LEGO bricks
- LEGO base boards - 10" x 10" - one board per maze
- One marble per maze

Ask students what they already know about engineering. What do engineers do? Facilitate the discussion to draw attention to the creativity and problem-solving elements of design engineering.

Announce that the design engineering challenge is to create a marble maze out of LEGOs.

1. Work alone or with a partner and create a marble maze that is based on the idea of moving the marble from one end of the base board to the other.
2. Make a sketch or drawing of your maze before you begin building.
3. Design a maze that will provide a path for the marble to travel from one side of the baseboard to the other. Check effectiveness by experimenting with a marble throughout the building process. Adjust and revise the design as needed after testing.
4. Refer to the original design to see what changes had to be made for the marble maze to improve the design.

