

Generating Geoboards

Explore how recycled materials around the house can become a space for geometric and literacy exploration!

Big Idea

Household materials can be used to create geoboards, which allow for children to explore with the concepts of line, shape, and letter creation.

Standards

4.A Listens effectively in formal and informal situations.	Children will listen and follow the adult's direction in creating their unique geoboard.
9.A Demonstrate and apply geometric concepts involving points, lines, planes and space.	Children will create shapes and lines with the rubber bands and push pins.
26.A Understand processes, traditional tools and modern technologies used in the arts.	Children will begin to use pushpins and rubber bands carefully as a traditional tool used in the arts.

Materials

- Cork bulletin board/cardboard box
- Push pins
- Different sizes rubber bands or string loops

Setup

Find a clean space to work, either a table or floor area lay out the bulletin board.

Directions

1. To begin the DIY Geoboard Project lay the cork bulletin board or cardboard box on the floor or hang low so children can access.
2. With adult assistance, place the pushpins around on the cork bulletin board or cardboard box. Place 1 to 2 inches if you have small rubber bands or 3 to 4 inches if you have larger rubber bands. The stretchy rubber bands will determine how far to place the pushpins-too far apart and the pushpins will give way and too close the rubber band will be too loose and create an "O" shape instead of a "I" shape.
3. Try using your fine motor skills, 2 pushpins to make a line, then 3 pushpins to make a triangle. Next, try 4 push pins with equal sides and create a square. What happens when you have a closed shape with 2 sides long and 2 sides shorter. A rectangle! What shape can you make using 5 pushpins and has 5 equal sides? A pentagon!

4. Then try making capital letter and lower case letters. What other designs can you make on the DIY Geoboard?
5. Children can continue to place additional items until they are finished.

Investigation Questions:

Q. Try strumming the different kind of rubber bands? Do they make a high sound or a low sound? Can you make the same sound with your body?

Q. What other designs can you make using a DIY Geoboard?

Q. What other shapes can you create on your DIY Geoboard?