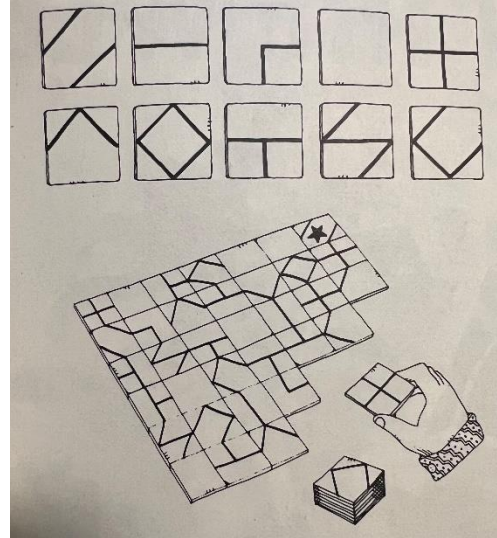


Primary STEM Activity **Finger Maze Cards**

Activity from: Play Book by Steven Caney

A printed maze that you solve with a pencil is fun, but once you've done it, you've got to find or make another to do more. With finger maze cards you can create new and different mazes in a few minutes. In fact, if you have a deck of fifty maze cards you can make hundreds of different mazes. Some patterns will be quite easy to solve, some difficult, some impossible but every maze will be unique. The more maze cards you make and use the more difficult to solve.

This can be played as a solitaire game with the object being to find a path that gets you from start to finish, or two or more can compete to see who can solve maze in the fastest time. Sometimes it is fun to see who can construct the most difficult maze pattern.



Good maze-solving strategy requires that you look ahead to see which path seems most favorable and which paths might lead to dead ends. You can use a simple trial and error method to find the correct path through the maze, but you will do better consistently if you use your mind and think the problem through. Some players like to trace the maze from both ends and hopefully meet somewhere in the middle.

For younger kids, the Finger Maze Cards can be used as an abstract puzzle offering endless possible designs. In this case there is no correct way of working with the cards. The only rule is to place them so that the lines connect.

Materials: thin cardboard (like a cereal box/index cards/ file folders/construction paper), scissors, ruler/straight edge, crayons/marker

Construction:

Cut the thin scrap cardboard into squares of the same size. Either measure out each square for cutting or make one good square to use as a pattern for the others. Your child can help with this drawing and measuring, and support with the cutting where needed. Any number of cards will do but try to make at least fifty cards. Using a dark crayon, or marker copy the ten card patterns below. One of the pattern cards is blank. Try to have about the same number of cards for each pattern. Notice that all the pattern lines begin and end at the middle of an edge. This is so that the lines will connect or match up when the cards are placed together. Select any two of the cards you made, except for the blank cards, and mark a big dot on each one. One of the cards with a big dot will be the start position and the other cards will be the finish.

How to Play:

Method 1: Shuffle all the finger maze cards and deal them in order face up. Make rows of cards with all cards and rows touching. (The overall shape of the maze is up to you). If you start with fifty cards, you can make five rows of ten cards, or seven rows of seven cards and have one left

over. See if you can follow the connecting lines from one for card to the other without reaching a dead end. Use your finger to trace the path.

Method 2: Start with on of the dot cards and lay out all the cards to form a maze. You pattern can be tricky with lots of dead ends, or a simple long winding one. End the maze with the other dot card. Challenge someone else to solve your maze.

Maze Cards Patterns: **Some lines go over the edge so that if you want to print them the maze will connect to the next card.*

