

Patterned Pathways

(Grades 3 through 8)



Strand:

Number & Quantity

Algebra

Functions

Geometry

Statistics & Probability

X

Materials Needed:

- 6 by 6 gameboard
- 4 game pieces
- Tetrahedral dice
- Set® cards, one deck

Where:

Outside

Inside

On-line

On-site

X



Use your pattern recognition skills to move your game piece across a patterned board in this game for 1 to 4 players!

Set-Up:

- Use commercial Set® cards. Remove all cards with 3 shapes and all cards that are shaded with lines.
- Deal the remaining cards onto the 6 by 6 gameboard (one card per space).
- Place the game pieces, one on each side of the board.
- The starting space corresponds to the ending space that is directly across the board from it.

Object of the Activity: Plan a solution pathway by comparing and matching attributes of figures.

Playing the Game:

1. Roll a die. If the die lands on 1, 2, or 3, move your game piece up to that many spaces. To move from one space to the next, the two spaces must share a side and the figures on the spaces must share at least two attributes. (Exception: On your first turn, you may move to any adjacent space.)
 - a. The attributes that two figures can share are color, shape, shading, and number of shapes.
 - b. For example, if your piece is on a space with one shaded, red oval, you may move to an adjacent space that displays two shaded, red squiggles because both figures on the cards are shaded and red.
 - c. Game pieces can move back to spaces they have already occupied; however, this counts as one of your moves.
2. If the spinner lands on 4, move to one adjacent space, even if it shares no attributes with your current space.
3. Your turn is done. The player on your right takes a turn.
4. Play continues in this manner until one player reaches their ending point on the opposite side of the game board.

To Win: Once a player lands on the space on the opposite side of the game board that matches their starting space, that player wins the game.

Think About It:

- Compare the figures' color, shape, shading, and number of shapes. Plan a route before you make your first move.

Variations:

Connected Pathway: In this version, follow all of the directions listed above. However, when you move your game piece, every space you move to must share the **same two** attributes with the figure you **begin your turn on**.

One Player: Find the shortest route from a starting space to the corresponding ending space.

Nothing in Common: In this version, follow all of the directions listed above. However, instead of being able to move to an adjacent space if it shares at least two attributes, play where you may only move to an adjacent space if it shares *no* attributes in common.