



# Destination Transformation

## Strands:

Number &  
Quantity

Algebra

Functions

Geometry

Statistics &  
Probability

Flip, turn, and slide your way to the finish! Use your knowledge of transformations to reach your destination.

## Set-Up:

### Game Board Assembly:

- Cut one of the game board halves along the dotted line.
- Align the cut edge with the dotted line on the other half. Glue or tape the two board halves together so that the squares on both halves of the board align exactly and so that the blue and red lines of reflection are straight once the board is together.

### Game Piece Assembly:

- Cut out each colored rectangle. Fold them in half along the line indicated.
- Glue or tape the edges so each playing piece stays folded.
- Print and cut out question cards.

**Object of the Activity:** Reach FINISH by successfully completing transformations and answering questions.

## Playing the Game:

1. The player whose birthday is closest goes first.
2. Begin on "START" with your game piece "Heads" side up in the same direction as the word START.
3. Roll the die, then move your game piece forward the number of spaces you rolled on the die.
4. When you land on a space, complete the transformation or answer a question as follows:
  - Reflection and Rotation spaces: Follow the directions stated on the space.
  - Translation Spaces: Each orange path and arrow shows how the edge one square is translated onto the edge of another. Pay attention to corresponding edges of each square to translate your game piece. State the translation (for example, 3 spaces right and 2 spaces up).
  - Question spaces: Read and answer the question on the top question card. Your opponents determine if your answer is correct. If you are correct, move forward 2 spaces. If not, move back 1 space. Do not perform the transformation on this space.
5. Your turn ends. Play moves to the player on the left.

## If you transform the game piece incorrectly:

- The other players determine into which space the game piece should be transformed.
- If the transformation moves you ahead, do not move your game piece.
- If the transformation moves you backward, move to the correct space for the transformation.

## If you cannot move:

- If you cannot move the number of spaces you rolled, remain on your current space. Your turn ends.

**To Win:** The first player to reach FINISH wins!

## Materials:

- Scissors
- Tape or glue
- Game board
- Question cards
- Game pieces, one per player
- 1 die

## Where:

Outside

Inside

On-line

On-site

**Think About It:**

- Why is it important to pay attention to the numbered corners of the game piece?
- Why does the orientation of the game piece matter?
- Which transformations preserve the orientation of the game piece?
- Why aren't there any dilation spaces in the game?

**Variations:**

**Choose the End:** To win, your game piece must land on FINISH in one of the following ways (choose one before the game starts):

- HEADS side up.
- Corners 1 and 2 must be on top.
- HEADS side up with corners 1 and 2 on top.

**Which Way?** Players may move backward or forward on any turn.

**Helpful Hints:**

- Always pay attention to where the corners of the pieces are and which side is facing up.
- Watch the other players perform their transformations to make sure they are correct and to help you better understand how the pieces are moved.