

Notes Concerning the *Sandwich Game*

Level: Advanced (1st grade and above)

Recommended # of Players: 2

Materials: *Sandwich Game* gameboard; 64 tokens that are of 2 colors, one color on each side (see notes); paper and pencil for scoring

Relationships: Spatial reasoning, addition by 2s

Notes:

If tokens with a different color on each side are not available, pennies can be used, with one player being heads and the other tails. However, when pennies are used, it is more difficult for children to distinguish the tokens on the board, so colored tokens are recommended. Tokens of 2 colors can be made by gluing together 2 tokens of different colors, or by painting one side of a set of tokens.

This game is very similar to the commercial game *Othello*. It is a very good game for spatial reasoning. Children have the opportunity to track many different potential sandwiches, and to evaluate the possibilities for sandwiches with each new placement. Because of the rule that sandwiched tokens are turned over and thus change color (becoming the other player's tokens), the arrangement of the game board can change frequently. Children must pay close attention while playing the game in order to keep track of all possible sandwiches.

This game provides children with many opportunities to decenter to consider all of the possible rows on the board (horizontal, vertical, and diagonal). Young children frequently have trouble recognizing diagonal rows; they focus only on horizontal and vertical rows and miss diagonals.

This game also promotes perspective taking as players try to anticipate where the other might place a token on the next move. Players have the opportunity to learn how to play both offensively (trying to sandwich the other player's tokens) and defensively (trying to prevent their own tokens from being sandwiched).

Adapted from Kamii, C. & Housman, L. (1999). *Young Children Reinvent Arithmetic: Implications of Piaget's Theory*, Second Edition. New York: Teachers College Press.

The Sandwich Game

2 players

Materials: *Sandwich Game* game board; 64 tokens that are a different color on each side; paper and pencil for score keeping

Objective: To have the most points at the end of the game.

To Play:

1. Players each take 32 tokens and decide which side (color) each player will use.
2. Players each place 2 tokens in the center (shaded part) of the board diagonally from each other (as in diagram, right).
3. Players decide who goes first.
4. Players take turns putting down one token at a time in a square, trying to “sandwich” 2 of the other player’s tokens between 2 of their own. Sandwiches can be made horizontally, vertically, or diagonally, but must be in a row. Multiple sandwiches can be made at the same time in different directions.
5. A move only counts as a sandwich if a player places one of the outside tokens. If a player places a token so that it is inside a sandwich, this does not count as a sandwich.
6. Each time a sandwich is made, the tokens sandwiched in between are turned over so that the tokens are now the other color. The player who made the sandwich earns 2 points. If one placement makes more than one sandwich, each sandwich earns 2 points.
7. The game ends when all of the tokens have been placed on the board. The player with the most points is the winner.



