University of Northern Iowa

UNI ScholarWorks

Sharing STEM: Math Games

Open Education Resources

January 2020

Connect Four [4 years-Grade 3]

Regents' Center for Early Developmental Education

Let us know how access to this document benefits you

Copyright ©2020 Regents' Center for Early Developmental Education Follow this and additional works at: https://scholarworks.uni.edu/mathgames

Recommended Citation

Regents' Center for Early Developmental Education, "Connect Four [4 years-Grade 3]" (2020). *Sharing STEM: Math Games*. 15.

https://scholarworks.uni.edu/mathgames/15

This Games is brought to you for free and open access by the Open Education Resources at UNI ScholarWorks. It has been accepted for inclusion in Sharing STEM: Math Games by an authorized administrator of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Offensive Materials Statement: Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

Notes Concerning Connect Four



Level: Intermediate (pre-K (4), kdg., 1st grade)

Recommended # of players: 2

Materials: Connect Four grid, 42 checkers (21 each of 2 colors) *

Relationships: spatial reasoning

Notes:

In this classic game, children try to get 4 checkers in a row on the grid. The tricky part is that children must take gravity into consideration. The grid is perpendicular to the floor, so that when a checker is inserted into a column, it drops to the lowest position in that column. This can be challenging for children who focus on the space that they want their checker to occupy and fail to consider that the space below it is empty.

Young children also frequently have trouble recognizing diagonal rows; they focus only on horizontal and vertical rows and miss diagonals. So this game helps children to decenter to consider all possible rows.

The 42-space grid (6 rows and 7 columns) contains 69 possible rows of 4. Because the number of possibilities is so great, children have the opportunity to learn that they must pay close attention to the grid and how it changes after each turn.



^{*} Connect Four, available in most toy stores, is made by Milton Bradley.

Connect Four

(2 players)

Materials: Connect Four grid, 42 checkers (21 of each color)

Objective: To be the first player to get 4 checkers in a row

To play:

- 1. Players attach the legs to the grid and set it up so that both players can reach it. Make sure the lever at the bottom of the grid is set so the checkers will not fall through.
- 2. Players decide which color checkers they will use and who will go first.
- 3. Players take turns placing checkers into the grid until one player has a row of 4 of his or her checkers in a row. The row can be up and down (vertical), across (horizontal), or diagonal.



4. The first player to make a row wins the game. The winner clears the grid by sliding the lever at the bottom of the board to one side, dropping the checkers.

