

SD72 PARENT HOME LEARNING LESSON

Connect 4 Multiplication Game

PURPOSE / SKILL: Build fluency with multiplication of single digits.

MATERIALS:

- Game boards (below).
- counters/markers (for example paper clip) to cover the factors on the bottom row of game.
- A separate set of counters/markers (nickels/dimes, two sets of different coloured blocks/counters/buttons),
- access to calculator or timetable sheet.

INSTRUCTIONS: Two player game

- Player A and Player B select one factor (1-9) at the bottom of the game board to start and place their marker on that factor.
- Player A may move one of the two factor markers; multiplies those factors together and uses a marker/counter to cover the product (total) on the gameboard. ($2 \times 7 = 14$)
- Player B may move only one of the factor markers to make a new product and then covers that product on the gameboard. It is possible to place two markers on one factor ($6 \times 6 = 36$)
- Continue to alternate turns, covering the products on the game card until a player has marked 4 in a row.
- When the game is over, discuss the strategies each player used to try and cover the products they needed to make 4 in a row.

ACTIVITY: - *Game board follow next section.*

POSSIBLE NEXT STEPS:

- Create your own game board - Extend board to include factors 10, 11 and 12 and their products.
- Create your own rules/parameters for “winning” the game – like 5 in a row; first to get the corners; etc.
- Try a cooperative time trial – can you cover the whole board?

- Eliminate a few factors and try to get 4 in a row without them – discuss what problems you might encounter and strategies you can use.
- Use a larger game board – like a hundred’s chart and play again.

Division connection: -

- Player A covers one factor, and then selects the product on the board and covers.
- Player B must identify the missing factor for that product, and moves their marker to that factor, selects a new product and repeats.

Example: Player A – selects factor 5 and product 35 – ($35 \div 5 =$ or $5 \times N = 35$) Player b identifies the missing factor – (7) and places their marker on that factor.

Player B then selects a product that has 7 as a factor and player A must identify the missing factor... and so on until there are 4 products in a row identified. Discuss strategies.

Game Board 1

1	2	3	4	5	6
7	8	9	10	11	12
14	15	16	18	20	21
24	25	27	28	30	32
35	36	40	45	48	49
54	56	63	64	72	81
Factors: 1 2 3 4 5 6 7 8 9					

Game Board 2

81	16	63	12	45	8	27	4
32	63	24	49	16	35	8	21
72	24	18	40	12	24	6	56
40	54	30	42	20	30	10	18
45	35	48	36	25	24	15	12
36	56	28	42	20	28	12	14
72	18	54	14	36	10	18	6
64	27	48	21	32	15	16	9
Factors: 1 2 3 4 5 6 7 8 9							

Build your Own Game Board

Factors: