Four in a Row

Grade Level: K-2nd grade

Number of Players: 2

Materials Needed: Four in a Row numeral game board, two paperclips, and a pencil per pair of Players. Manipulative and scratch paper for students as needed.

Mathematical Understanding:
Finding the sum of two numbers for combinations 0-20.

**Classroom may provide manipulatives and scratch paper to support student's problem solving.

Object of the Game:
The first player to mark four squares in a row (vertically, horizontally, or diagonally) on the Four in a Row K-2 game board wins the game.

Directions:
Player 1 puts a paper clip on a numeral on the number line. No square on the sum grid is marked by Player 1 because only one addend has been marked; it takes at least two addends to make a sum.

Player 2 puts the second paper clip on any numeral in the number line (including the same number marked by Player 1 to make a double) and then finds the numeral on the game board that is the **sum** of the two numbers. Player 2 then claims this box by writing the initial of his/her first name over this numeral.

Player 1 moves one of the paper clips to another numeral on the number line and finds the **sum** of the two new numbers. Player 1 then finds this **sum** on the game board. Player 1 claims this box by writing his/her initial over the sum. Only one paper clip may be moved by a player during their turn. The two paper clips can be placed on the same numeral to create a doubles fact.

Each player, in turn, moves one paper clip to create a new combination, problem solves the sum of the two numerals, and claims that box on the game board. If a child chooses an incorrect sum, prompt the child to use the manipulatives to check. If all the appropriate numerals are already marked on the grid, the player does not get to mark a box for that turn. The winner is the first player to mark four squares in a row -- horizontally, vertically, or diagonally.

Guiding Questions:

What do you know?

Where do you think you will begin?

Where are you stuck? What is confusing? What are you wondering about?

What are you going to try?

What did you think about to come to your answer?

Differentiation:

Before play begins, players may decide to play either three-in-a-row (easier) or five-in-a-row (more challenging).

Players may decide that each has to verbally state the math equation they have made.

Players may represent their problem with manipulatives or draw a representation of their problem if needed to find the sum of their combination.

Game Trajectory:

Pre K-K: Players use a game board containing pictorial representations of digits 1-10. They match the pictorials to written digits on a number line to claim a square.

K-2: Players use the game board containing digits 1-20 and move paperclips on the number line to create sums and claim squares.

3-5: Players use the 6x6 products game board and move paperclips on a number line to create products and claim squares.

5-6: Players use the 6x6 products game board and move paperclips on a number line to create products and claim squares.
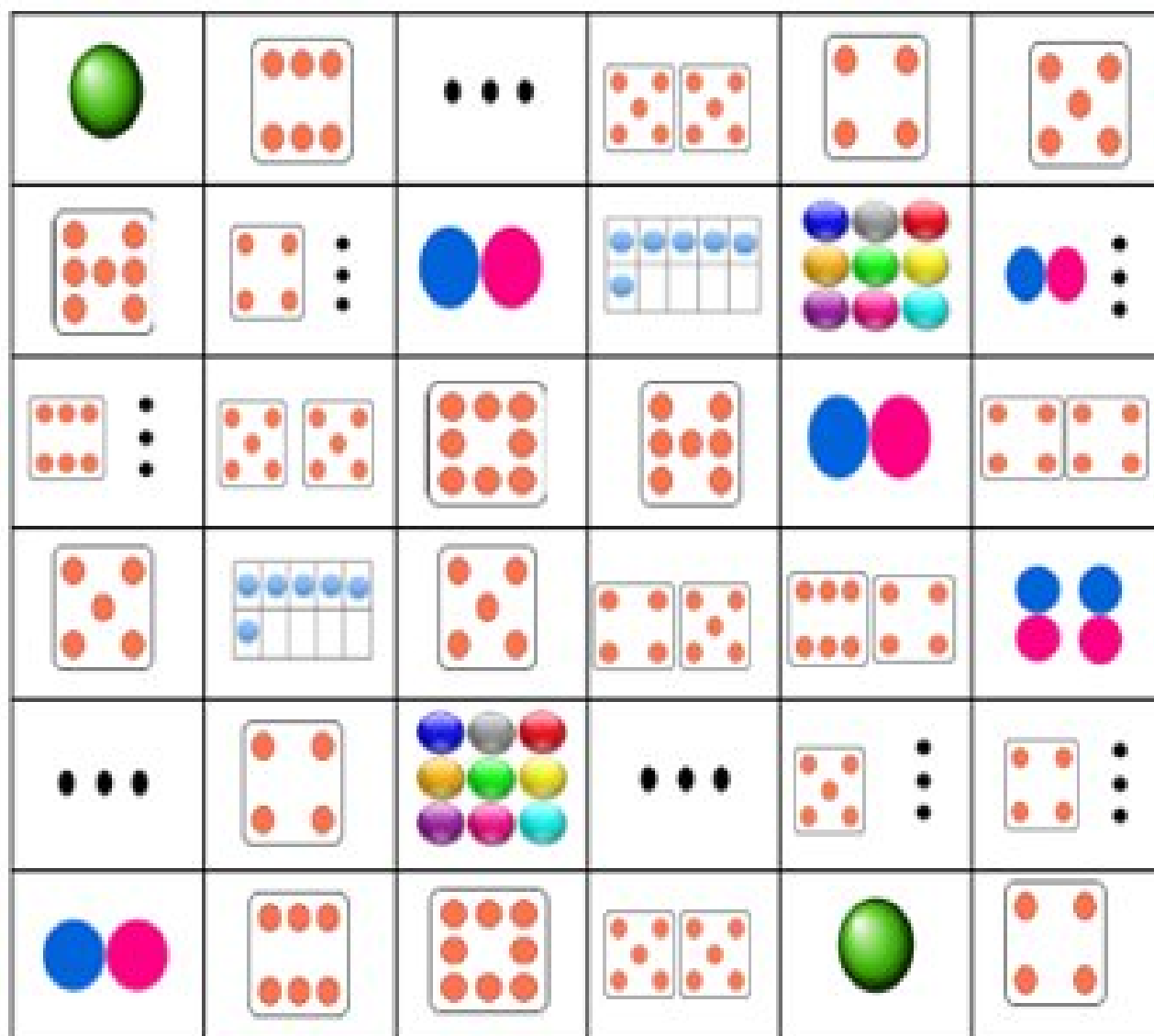
Clean up Checklist for Game Bag:

Laminated Master of the Four in a Row directions

Copies of game boards (extras)
- K-2: 5x4 Sums game board

Pencils and 2 paperclips

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1	2	3	4	5	6	7	8	9	10

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1	6	3	10	4	5
7	17	20	16	9	10
9	10	8	7	12	8
5	6	15	9	10	0
3	14	19	13	8	7
2	6	18	10	11	4

0	1	2	3	4	5	6	7	8	9	10