

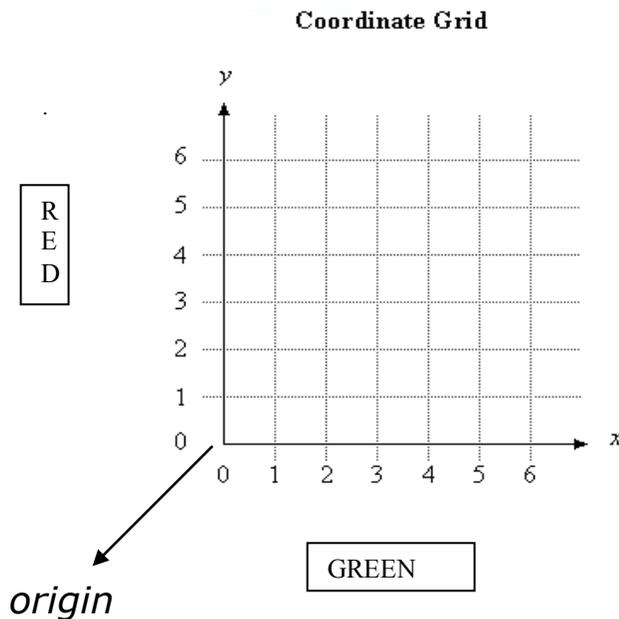
Tic-Tac-Toe! Four in a Row

Students practice plotting points on a coordinate grid using ordered pairs of numbers, called coordinates.

Materials: 6 x 6 grids created by six vertical and six horizontal intersecting lines; two 1-6 die of two different colors (green die will tell us the coordinate for the horizontal axis and the red die will tell us the coordinate for the vertical axis); Two colored pencils (different colors)
Label each axis so students will not get confused.

Instruction:

Introduce the game by showing students a 6 x 6 grid.



Ask students which lines are parallel? Which lines are perpendicular?

With students, label the vertical axis with numbers 0-6.

With students, label the horizontal axis with numbers 0-6

Introduce the word *Origin* as the place where the vertical and horizontal lines intersect. We use this intersection as the starting place when we locate points. The origin is labeled 0,0.

Coordinates: Tell students that where horizontal and vertical lines meet is a coordinate point. For example: Roll the dice;

Green 3 and Red 5

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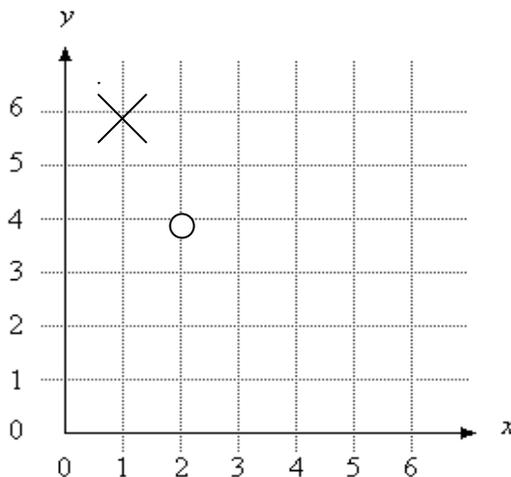
With students, starting at 0, count across to 3 (horizontal axis) and then move up the vertical axis to 5. The order of the coordinates matter. We also call them *ordered pairs*.

Directions:

1. Players decide who is going to represent his/her coordinate points with X and who is going to represent their coordinate points with O.
2. Player 1 rolls the dice. If player 1 rolls a green 2 and a red 4, the player begins at the origin (0) and count across the horizontal line to two and then moves up the vertical line to 4. Player 1 places an O at the intersection of (2,4) and records the coordinates.
3. Player 2 rolls a green 1 and a red 6 and places an X on the grid at 1,6
Player 2 records the coordinates.
4. The first player to get 4 points in a row- Vertically, diagonally, or horizontally wins. (just like the game of Tic Tac Toe)

X	O
1,6	2,4

Coordinate Grid



Variation: Players play on the same game grid. Instead of using dice, players determine the coordinate points and plot them on the grid. Students record the coordinate points.

Selecting their own points, allows students to block the other player. This game is played like Tic Tac Toe except the Xs and Os are placed on the intersection where the vertical and horizontal lines meet.

Name _____

Date ___/___/___

