

## The Positive Engagement Project <br> IJG ЂO2t!

Making a difference...not a dollar.

A Great Strategy Game Using Ordered Pairs


Coordinate Fours is a game that is designed to reinforce basic coordinate point skills in a fun and engaging approach. With two different game formats to choose from (level 1 and level 2), it's a game that can be played across a wide range of grades and ages. Within each turn, students will need to mentally check multiple points and use strategies which reinforce critical thinking skills before making a final decision for their move. It is easy to learn for the students and provides immediate informal assessment for teachers all within a game format students enjoy. Played as a whole group or with partners, this game is a great way to reinforce a skill in a format very conducive to students of all ages. Enough with the jibber jabber. Let's get to the game.

## Level 1: Grades 2-4

Materials: Game board, 2 whiteboard dry erase markers (different colors).
Game Objective: The game is won by making two straight lines of 4 in a row. The two lines may share 1 common marker. The first person or team to do this wins the game.

Skill Objective: Allow students to practice the concept of graphing coordinate points in a fun, engaging, and meaningful fashion.

## How to Play:

1. Display the game board on an overhead projector (or give to each group playing the game).
2. Decide who will go first by using the "rock, paper, scissor" method.
3. Player 1 selects a point by giving the coordinates and placing his/her marker on that point. Player 2 must be sure to watch carefully to be sure that Player 1 properly places their piece on the board (remembering that $X$ comes before $Y$ ).
4. At this point it becomes Player 2's turn. Player 2 repeats step 3.
5. Players alternate turns until someone has successfully made two straight lines of four in any direction. The two winning lines can share one marker or be completely separate.

> Be sure to laminate your game boards if you use dry erase markers. If using hands on marking items, be sure they are small enough to fit on each order paired point.


## Level 2: Grades 5-7

Materials: Game board, 2 whiteboard dry erase markers (different colors).
Game Objective: The game is won by making THREE straight lines of 4 in a row. The lines may each share 1 common mark. The first person or team to do this wins the game.

- IMPORTANT NOTE: ALL THREE LINES CANNOT BE IN THE SAME QUADRANT. AT LEAST ONE OF THE LINES MUST BE IN A QUADRANT SEPARATE FROM THE OTHER LINES. HOWEVER, EACH OF THE THREE LINES CAN BE IN DIFFERENT QUADRANTS.

Skill Objective: Allow students to practice the concept of graphing positive and negative coordinate points in a fun, engaging, and meaningful fashion.

## How to Play:

1. Display the game board on an overhead projector (or give to each group playing the game).
2. Decide who will go first by using the "rock, paper, scissor" method.
3. Player 1 selects a point by giving the coordinates and placing his/her mark on that point. Player 2 must be sure to watch carefully to be sure that Player 1 properly places their mark on the board (remembering that X comes before Y ).
4. At this point it becomes Player 2's turn. Player 2 repeats step 3.
5. Players alternate turns until someone has successfully made THREE straight lines of four in any direction in a minimum of two different quadrants. The winning lines can share one mark with another line and a minimum of two quadrants must be used.

- IMPORTANT NOTE: ALL THREE LINES CANNOT BE IN THE SAME QUADRANT. AT LEAST ONE OF THE LINES MUST BE IN A QUADRANT SEPARATE FROM THE OTHER LINES. HOWEVER, EACH OF THE THREE LINES CAN BE IN DIFFERENT QUADRANTS.
- IMPORTANT NOTE: IF A LINE CROSSES AN AXIS, THUS IT IS SHARED BY TWO DIFFERENT QUADRANTS, THE QUADRANT WITH TWO OF THE POINTS IS CONSIDERED THE LOCATION OF THAT LINE. THIS IS IMPORTANT WHEN DETERMINING WHICH QUADRANT A LINE IS IN TO ENSURE A MINIMUM OF TWO DIFFERENT QUADRANTS ARE USED TO WIN THE GAME.

> Be sure to laminate your game boards if you use dry erase markers. If using hands on marking items, be sure they are small enough to fit on each order paired point.


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