



CARTESIAN COORDINATES WITH ARRAYS

CREATED BY

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TOPICS

Mathematics, Programming

GRADES

5-8

METHOD

OzoBlockly

DURATION

15 minutes

Cartesian Coordinate Practice with Arrays

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Are you a teacher who needs to introduce the Cartesian coordinate system to your students? Would you like to give your students an enjoyable way to practice identifying coordinates in your classroom? Then the ***Evo Classroom Application: Cartesian Coordinate Practice*** is just what you are looking for!

All you need to do is load *EvoCartesianCoordinatePractice.ozocode* into your classroom Ozobot Evo robots and print copies of the maze on the next page for each group of students.

Instructions

1. To run the loaded program on Evo, begin with Evo powered down. Press Evo's button once to turn Evo on. Then when the front lights show blue, double-press the button. Evo's top light should then be a deep blue color. The OzoBlockly program has started running.
2. Quickly place Evo on the start location on the OzoMap facing the direction shown by the arrow. Make sure that the leading edge of Evo does not extend beyond the gray curve.
3. After about a two second delay, Evo will move randomly to one of the coordinates on the Cartesian coordinate plane and will stop. After stopping, Evo will show a green colored top light for five seconds. This five seconds is intended to give the student time to determine the (x, y) coordinates of the location where Evo stopped. Following this five second delay, Evo will inform the student of the correct coordinates by speaking them on his speaker, giving the student immediate feedback as a check on what the student thought the coordinates were.
4. After Evo has spoken the answer, he will blink yellow for eight seconds. During this time, the student should manually move Evo back to the "Start" position, where Evo will again randomly move to another coordinate pair on the Cartesian plane. This process will continue for 40 random points on the coordinate plane, but the program can be stopped and Evo turned off at any time by pressing Evo's button once. On any given run of the OzoBlockly program, Evo will not present the same (x, y) coordinates more than once.



Start

