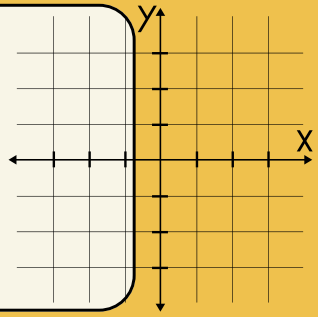# TEACHING THE COORDINATE PLANE: UNPLUGGED

Learning Objectives:

1. Students will practice identifying and using coordinates on a grid
2. Through the battleship activity, students will reinforce their understanding of coordinate plane, which is essential in coding and math applications.

Materials Needed:

- Two copies of 5x5 grids per student (one for their own ships, and one for tracking hits and misses)
- Battleship worksheet for each pair of students
- Sentence stems for structured dialogue during gameplay
- Printed vocabulary words for the word wall (Coordinate plane, Variables, Conditional Statement, Block-based code)
- Anchor chart of a large 5x5 grid for modeling the activity

Educator Preparation:

- Update the word wall with vocabulary words like "Coordinate plane," "Variables," "Conditional Statement," and "Block-based code." These terms will help students connect the game to coding and mathematical concepts.
- Prepare a large-scale 5x5 coordinate grid on an anchor chart to demonstrate the game.
- Print out the grids worksheet for each student and sentence stems to guide student interactions during the game, such as "I choose (X, Y) as my target."

GAME SET-UP: Place the following ships by shading spots on your game board

1 battleship (4 grid spots)
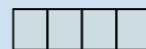
1 cruiser (3 grid spots)
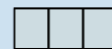
2 destroyers (2 grid spots)

Extensions and Modifications:

- If students finish early, offer a larger grid (e.g., 6x6 or 7x7) for an additional challenge.
- If time permits, organize a tournament where winners from each pair compete against other winners.

Facilitator Notes:

Encourage the use of correct terminology for X and Y coordinates throughout the game. Sentence stems should guide student interactions, ensuring they stay focused on practicing coordinates while playing. Reinforce that the activity is both fun and educational, giving them a hands-on way to explore coordinate planes.

Created for Edutopia by Sabrina Tirachen (Of *My Tech-Savvy Classroom*)
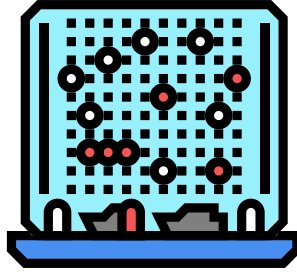
Battleship Worksheet

Name:

Date:

My Grid

Opponent's Grid [Use this to track your guesses!]