

Lesson 1 - Intro to the Agent I (Basic Moves)

Objectives

I can code my Agent using the MakeCode interface to complete basic moves.

Standards

- 4-6.CT.4 Decompose a problem into smaller named tasks, some of which can themselves be decomposed into smaller steps.
- 4-6.CT.5 Identify and name a task within a problem that gets performed multiple times while solving that problem, but with slightly different concrete details each time.
- 4-6.CT.8 Develop algorithms or programs that use repetition and conditionals for creative expression or to solve a problem.

Gradual Release of Responsibility (I do/We do/You do)

I Do

Teacher will review the basic Minecraft commands: C, T, and ESC

- C: Summons the Agent and opens the MakeCode interface
- T: Opens the chat panel in Minecraft ("on chat command")
- ESC: Allows user to leave the game, leave the chat, or pause the game

Teacher will demonstrate using MakeCode to code the agent to move using the "on chat command", "agent move", and "agent turn" blocks. Teacher will also demonstrate bringing up the chat and using the assigned command to start the agent's algorithm.

We Do

Teacher will drive and students will navigate this activity.

Task: Code the agent to make a path of 10 blocks. The path should turn once.

Directions: Think-Pair-Share: Students should take a few minutes to write pseudocode for the agent to make a path. Then, they will share their pseudocode with a partner. The partner will check that the agent makes a path of 10 bricks. A few groups should share their pseudocode. The teacher will choose one student and they will navigate while the teacher drives to demonstrate.

You Do

Task: Code the agent to build a rectangular prism of 24 cubic units.

Extension: Code your agent to build a pyramid. The pyramid should have at least five layers.

Exit Ticket

1. Which command summons the Agent?
2. What does the "On chat command" do?