

# Lesson 8 - Working Collaboratively on a Build (Design)

## Objectives

I can work collaboratively with my peers to construct a build.

## 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.

## Vocabulary

**Loop** - a structure that repeats a set of instructions (algorithms) until it is told to stop.

**Nested Loop** - A loop within a loop.

**Conditional** - An action that occurs if something specific happens.

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

### I Do/We Do

Lead-in: Now that you have planned, you should begin working based on your plans created on Day 1.

While you are working use documentation tools to document your process! These can include the camera, book & quill, screenshots of code, etc.

### SUCCESS CRITERIA

Over the next several days, you will be working with your classmates in the Revisiting Biomes world. In multiplayer mode, you will work together to figure out how to manage the five different tasks found in four different areas of the island. You must:

- Create at least 2 algorithms to solve the problem/task

- Utilize repeat loops, conditional loops, or nested loops in the program
- Test and debug your program as needed

You Do:

Day 2

Your group needs to:

<b>PROGRAMMING</b>			
	<b>EXCEEDS (3)</b>	<b>MEETS (2)</b>	<b>APPROACHES (1)</b>
<b>CREATE ALGORITHMS</b>	THREE OR MORE SOLUTIONS ARE CREATED FOR EACH TASK	TWO ALGORITHMS ARE CREATED FOR EACH TASK	ONE SOLUTION IS CREATED FOR EACH TASK
<b>UTILIZE LOOPS, CONDITIONAL LOOPS, OR NESTED LOOPS</b>	ALL TASKS INCLUDE A LOOP, CONDITIONAL LOOP, <u>AND</u> NESTED LOOPS (THE ENTIRE PROJECT HAS TO ONE OF EACH, NOT EVERY TASK)	ALL TASKS INCLUDE A LOOP, CONDITIONAL LOOP, <u>OR</u> NESTED LOOPS	SOME OR ALL TASKS DO NOT INCLUDE A LOOP, CONDITIONAL LOOP, OR NESTED LOOP
<b>TEST AND DEBUG YOUR PROGRAM</b>	ALL PROGRAMS WORK SUCCESSFULLY AND UTILIZE INNOVATIVE SOLUTIONS	ALL PROGRAMS WORK SUCCESSFULLY	SOME OF THE PROGRAMS WORK
<b>DOCUMENTATION</b>	USED 3 OR MORE DOCUMENTATION TOOLS	USED AT LEAST 2 DOCUMENTATION TOOLS	USED ONE OF THE DOCUMENTATION TOOLS