

## Advanced Logic

### Lesson 5 – Expert Coding in Minecraft with Python

1. Sometimes innovations can sometimes lead to \_\_\_\_\_.
2. Computing innovations can have both \_\_\_\_\_ and \_\_\_\_\_ impacts on society, the economy, and culture.
3. What should responsible programmers think about?
4. What are for loops?
5. What are the 3 conditions that a for loop needs to be defined.

Condition 1 – \_\_\_\_\_

\_\_\_\_\_

Condition 2 – \_\_\_\_\_

\_\_\_\_\_

Condition 3 – \_\_\_\_\_

\_\_\_\_\_



6. How does a while loop function?

### **In Game Assessment References:**

\*\*For Activity Assessments, students will build the code completely on their own. They need to press C at the activity area and create a new project. When complete, they will save their MakeCode file and upload it to the portal for grading.

#### Activity Assessment 1:

Use a while loop and a for loop to have the agent break all of the emerald ore blocks in the area

#### Final Assessment – Game

For the final assessment, you will be given a code to import into MakeCode. This code is for a mini-game. You will be given this information about the game:

You will need to debug the code so they can play the game. Then save the code and upload it to the portal for grading.

This game is intended to do the following:

This game requires the player to break the stained glass blocks in the correct order. When broken in the correct order, the agent will build a staircase up to the brick block and then a bridge to the gold block. The stained glass blocks should react in the following way.

Red – build 1 level

Orange – build 2 levels

Yellow – build 3 levels

Green – build 4 levels

Blue – build 5 levels

Once the player is able to move up the staircase and across the bridge they should break the gold block to win the game.

