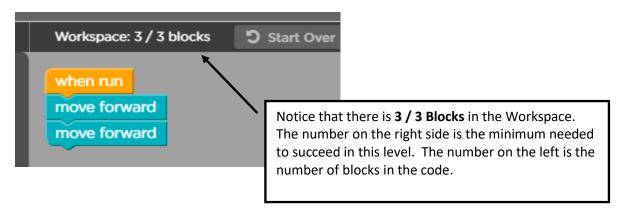
# Minecraft Hour of Code Adventurer: Answer Sheet & Teacher Tips

From Dan Hubing – January 31 2017

Select a character: Steve or Alex.

#### Level 1

Drag over another "move forward" block under the existing move forward block. Then select Run (If the button is Reset, select it to reset the game board and then select Run.)



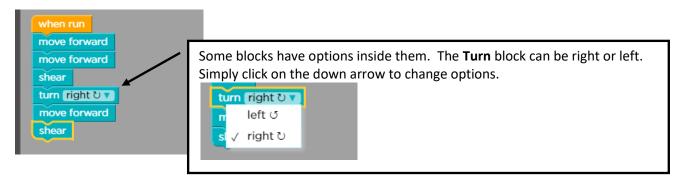
## Level 2

Move forward twice and then use the "destroy block" to chop the tree down.



## Level 3

Move forward twice and then shear the first sheep. Turn right and move one space and then sheer the second sheep.



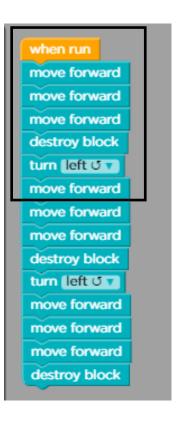
This level starts with 7 out of 15 blocks preset. These 7 will cut down the first tree by moving forward three steps, then destroy block (the tree) and then turn left and move one step.

You need to add two more move forwards and destroy the second tree. Then turn left, move three spaces forward and then destroy the final third tree.

<u>Tip</u>: Notice that there are three similar instruction sets, (move forwards, destroy and turn left). In the next Level 5, you will learn how to use the Repeat boock that automatically repeats similar instruction sets.



This set of instructions are repeated three times. (The last turn left block is not really needed.)



#### Level 5

Watch the Video. It describes the "Repeat" block.

This Repeat block will repeat the instruction blocks that are in it 4 times, since 4 is in the Repeat's pull down menu.

Drag over the "place" block to place birch planks on the game board. (It defaults to birch planks, but other boards can be selected) and then add the "move forward" block in the "repeat" block.

```
when run
repeat 4 v times
do place birch planks v
move forward
```

Select a disign for your house. **The example used here is for the Easy design**.

The first wall is prebuilt for you when this level starts.(If you wish to change your design, click the Level 6 option again.)

The second wall has preset blocks, repeat and turn right.

For the third wall, **Repeat 3** times the move forward and place blocks.

For the forth final wall, you only need to **Repeat 2** since there are only two steps to finish the house.

```
when run
repeat 3 v times
do move forward
place birch planks v

turn right 0 v
repeat 3 v times
do move forward
place birch planks v

turn right 0 v
repeat 2 v times
do move forward
place birch planks v
```

## Level 7

Need to repeat 6 times to plant and move forward. Then turn right.

Repeat moving forward twice.

Repeat moving 6 times forward and planting.

Finally, move forward to get off the garden.

(I could only do this with 12, not 11 blocks.)

```
when run
repeat 6 v times
do plant crop
move forward

turn right v v
repeat 2 v times
do move forward

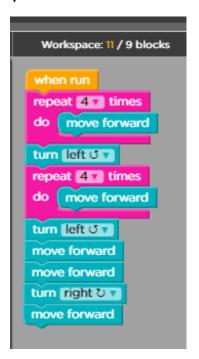
turn right v v
repeat 6 v times
do move forward

plant crop
move forward
```

Move your player forward, left, forward, left, forward, right and then forward one more time. Two solution options are shown below.



Option 1 solution:

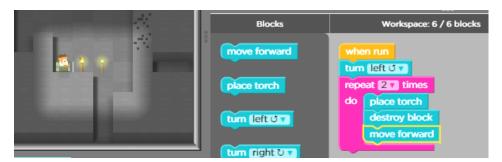


Option 2 solution (more creative)

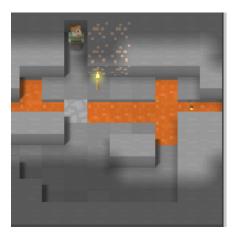


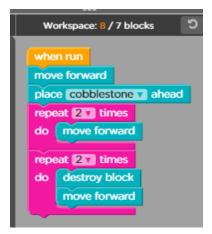
#### Level 9

Turn left first, then repeat placing the torch, destroying the block and moving forward. (If the student may wants more challenge, let them destroy the other coal locations.)



Move forward and place a cobblestone in front, over the lava. Then repeat two move forwards. Then repeat twice the destroy (mining) block and move forward blocks.





#### Level 11

Watch the video since it introduces the **If Statement block**.

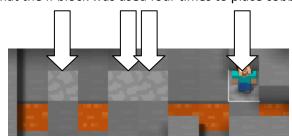
Most of the code is preset for you, other than one "move forward" block

The If block contents will execute if true.

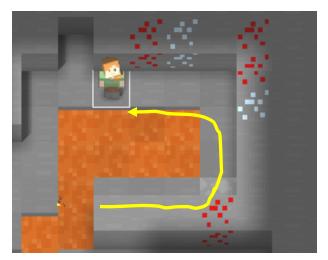
Otherwise it will skip over the If / Do blocks.

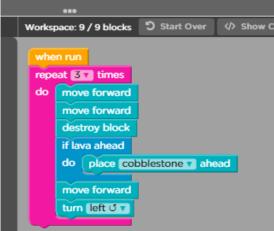
The student only needs to add the move forward block to the repeat loop.

Notice that the If block was used four times to place cobblestones over the lava:



Here there are blocks that need to repeat 3 times: move forward twice, destroy block and then use the if block to determine if lava is ahead, if so, place a cobblestone; then move forward and turn left.

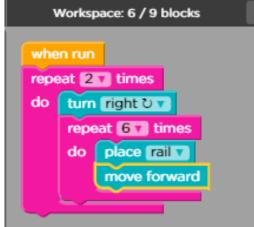




## Level 13

To get the player to ride on the tracks you need to: turn right and then 6 times place a rail and move forward; doing all of this twice.





## Level 14

Watch the video.

The student can now do anything they want. They are on their own to create anything using all the available blocks from what was taught in this Minecraft Adventurer tutorial. When finished they can send a text to a phone which includes the internet address. Selecting finish again will take them to the Certificate page. Type in the name and then select Submit to print.

# Done. ©