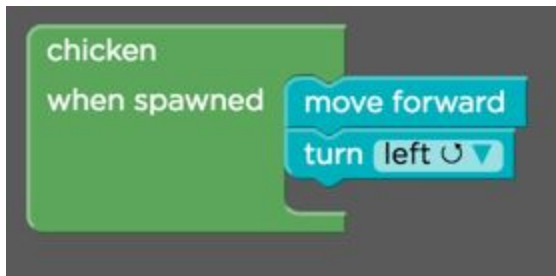# Minecraft Hour of Code Designer: Answer Sheet & Teacher Tips
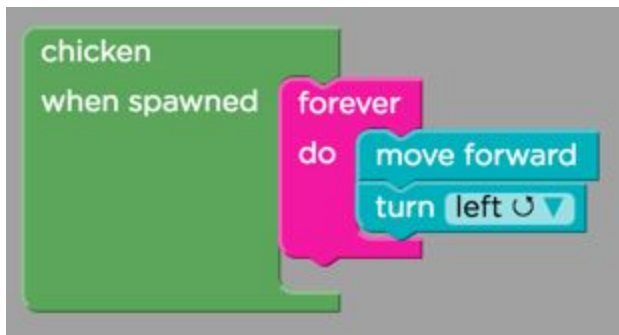
Level 1

Help your students learn how to attach the blocks and hit the "Run" button. They'll pass with any number of move and turn blocks.
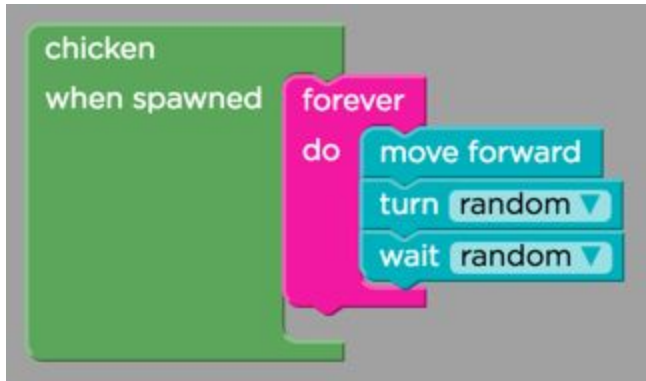

Level 2

Students can make the chickens move any direction as long as it keeps moving. Any number of move and turn commands inside a forever loop will pass this level. Here is an example that gets the chickens to walk in circles:

Level 3

The solution to this one is the same as the previous level, but instead of turning left or right, the students should 'turn random'. To make it even more random, add a 'wait random' command as well:

Level 4

There is no code to write on this level. Have your students use the arrow keys or swipe their screens to walk to the door. Hit the spacebar on the keyboard or tap the game space on a touch screen to "use" the door and open it. When they walk inside the house, they win.
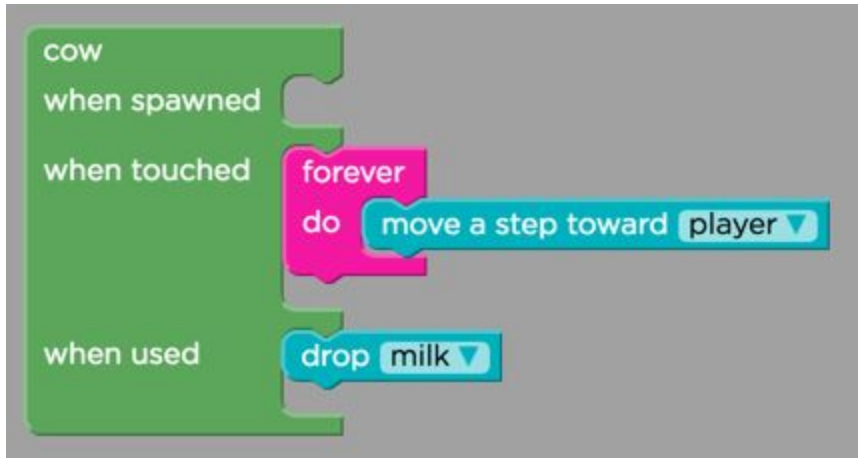
Level 5

The code here is just a "drop wool" block in the "when used" slot. The harder part for some students may be figuring out how to get the wool. If they are having trouble moving to the sheep, encourage them to use the arrow keys on the keyboard rather than the buttons on the screen. And, in order to "use" the sheep and get the wool, their character (Steve or Alex) needs to be next to the sheep and facing the sheep. If the sheep steps back when they touch it, take another step toward the sheep.
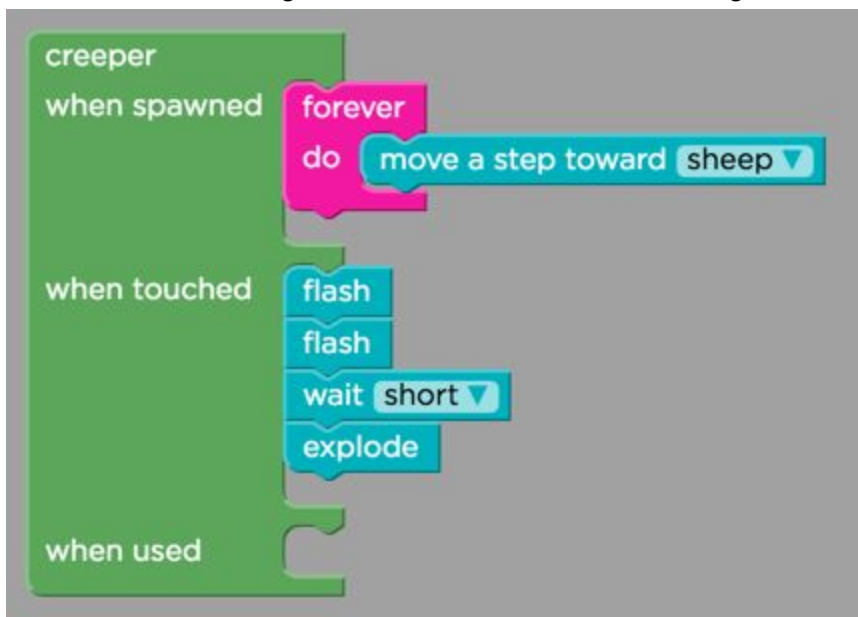

Level 6

To solve this level, students need to get the cows to move toward their character forever and then have the character lead the cows to the grass. They can either do this in the "when spawned" event slot (in which case the cows will walk toward the character when you hit Run) or in the "when touched" event slot. If they do it on "when touched", they'll need to walk over and touch both cows. Then, walk back to the grass so the cows get to the grass.
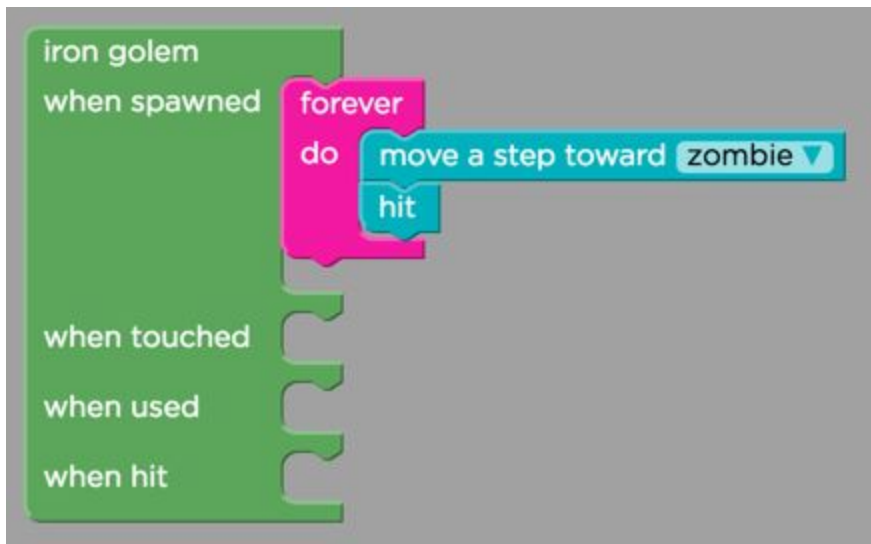
Level 7

This one is a bit of a puzzle. In order to get through the wall, the students need to figure out how to get the creeper to the wall and then make the creeper explode. There is more than one way to solve it, but the easiest is to have the creeper forever move toward the sheep when it is spawned. Then, hit Run, wait until the creeper is right next to the wall, touch the creeper to make it explode **and then walk a few steps away so you aren't hit in the blast**.

If your students don't have enough time to get away, encourage them to change the "wait short" command to "wait long". Or even add a second "wait long" command.

Level 8

This level teaches the students how to code characters to interact with other characters on the screen. Your student can solve this without ever leaving the house. They can use the forever loop to make the Iron Golem attack the zombies. (If they want to join the fight, they can also leave the house and go fight zombies too.)
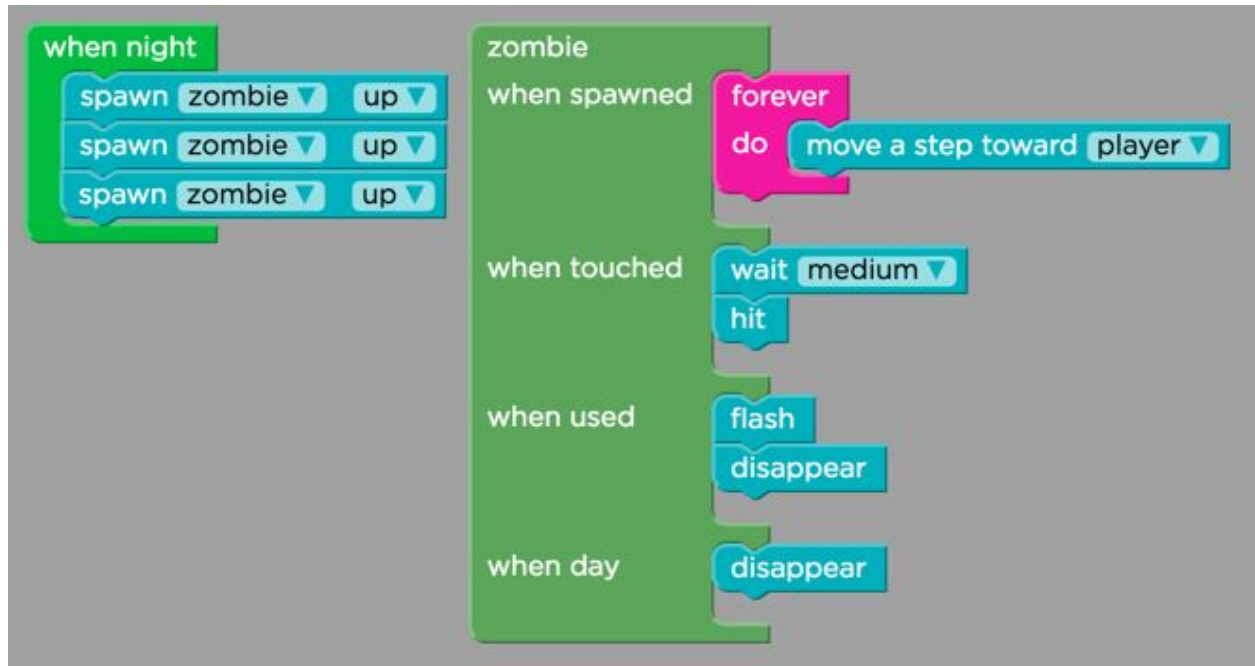

Level 9

This level teaches spawning. Your students can "pass" it by spawning any creature and any number of creatures. For example, here is code that spawns two chickens and a sheep:
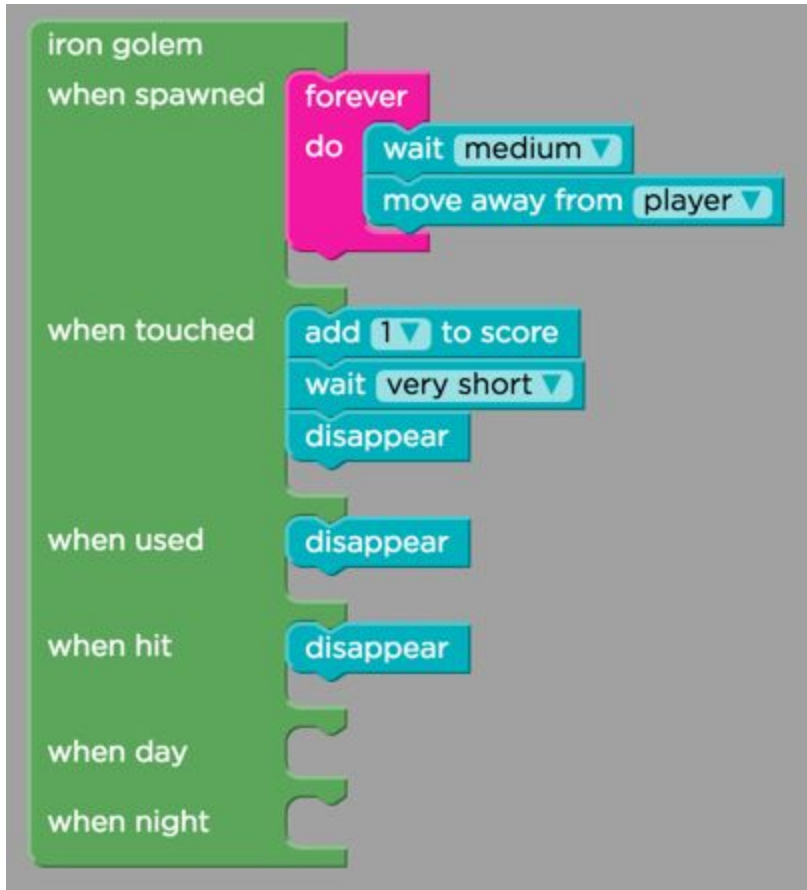

Level 10

To pass this level, students should spawn 3 zombies at night and then make them forever move toward the student. You can fight the zombies by facing them and pressing the spacebar or tapping the game space to "use" them.

If this level is too hard, encourage your students to add "wait long" between each step the zombies take. If that's still too hard, they can get creative to make it easier. After all, they are writing the code. There is no reason zombies have to attack. What if instead of attacking, the zombies "disappear" when touched? Now, you can beat it just by walking up and touching the zombies.

Level 11

This level teaches the students about score keeping. To pass it, they need to add a point every time they touch an Iron Golem. And then, they need to use all 5 Iron Golems. If that's too hard, have them give themselves 5 points when they touch the first Iron Golem.

Level 12

This is completely free play. Encourage your students to be creative! Some students will want to duplicate Minecraft rules: make Zombies spawn at night, have sheep run when you hit them, etc. Some will want to make their own rules. Should chickens lay eggs or diamonds? Should sheep "baaa" or "cluck"? What if the Zombies run away from you and sheep run toward you?

And, when they are done, encourage them to write down the share link so they show the game they made to their friends/parents.

Certificate and next steps

You can print out certificates in advance for everyone in your class to take home with them at https://code.org/certificates.

Thanks for teaching an Hour of Code! Do you want to teach more computer science? We have free workshops and curriculum available for K-12 classes at https://code.org/teach. Or, encourage students to keep learning on their own at https://code.org/learn/beyond.