



PLTW Virtual Learning

6th Grade Intro to Tech

May 18, 2020



6th Grade Intro to Technology Lesson: May 18 (Part 6 of 10)

Objective/Learning Target:

Students will develop knowledge of the fundamentals of the coding process through a blocky code language (or a text-based language if they choose a more advanced challenge).

Warm-Ups:

Define in your own words the following terms you've learned about:

Condition -

Loop -

Repeat -

While Loop -

Warm-Ups: **Answers**

Define in your own words the following terms you've learned about:

Condition - A statement that a program checks to see if it is true or false. If true, an action is taken. Otherwise, the action is ignored.

Loop - The action of doing something over and over again.

Repeat - Do something again

While Loop - A loop that continues to repeat while a condition is true.

Lesson Introduction/Background Information:

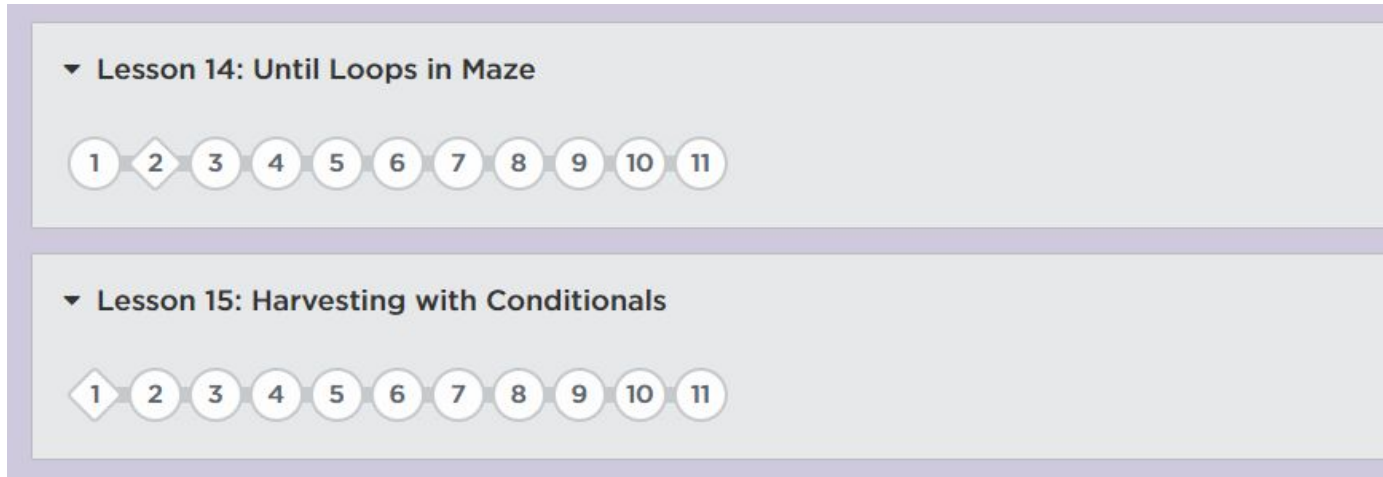
Regardless of your previous experience (or lack of) with coding, you are going to be spending the next two weeks working through structured coding lessons and learning some fundamental concepts of writing code that apply whether you are doing blocky (drag and drop) coding or you are doing text-based coding. Coding can be used from everything to making games, designing websites, creating apps, and programming robots (which you will be doing next year if you take Automation and Robotics).

Practice (Signing-In):

- Go to code.org
- This is not required, but if you want to save your progress on this FREE site, click the turquoise “Sign In” button in the top right corner.
- Click the red “Continue with Google” button on the right side.
- Click your school email (or any Google account) to continue.
- Watch [this video](#) to see these steps in action to get logged in (which is optional!)

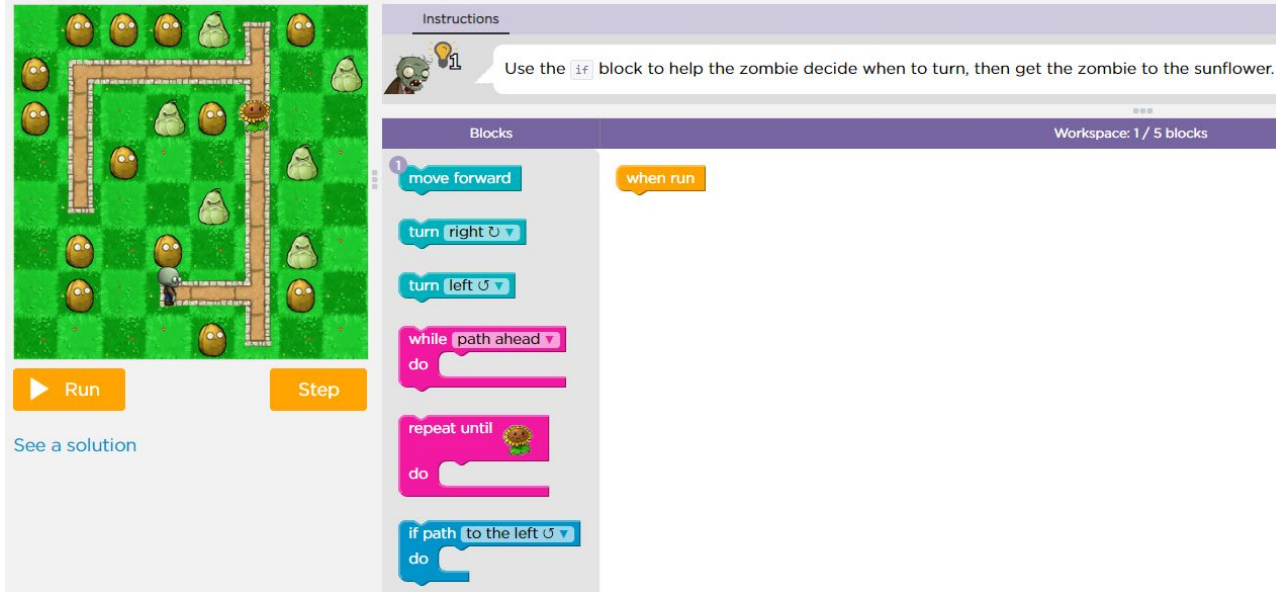
Practice:

- Navigate through the course catalog to the Express Course, or follow this link: <https://studio.code.org/s/express-2019>
- Today you are going to be introduced to the last type of conditional, the Until loop, and then you will review all of the conditionals that you have learned in lessons 14-15.



Practice:

- Just like your brains can use logic to make decisions, so can code! Using conditionals like “if/else”, “while”, and now “until” allow your code to get smarter, which allows you to do more. Explore this concept with today’s lessons, featuring zombies and farming.



Instructions

1 Use the `if` block to help the zombie decide when to turn, then get the zombie to the sunflower.

Blocks

Workspace: 1 / 5 blocks

1

when run

move forward

turn right

turn left

while path ahead

do

repeat until

do

if path to the left

do

Run Step

[See a solution](#)

Self-Assessment:

Each lesson will check your work as you go, so you get immediate feedback!

Did you use more blocks than recommended on a level? Go back and see if you can complete it while staying under the block maximum.

Extend Your Learning/Continued Practice:

Code.org also has some great videos about computer science. Check out two of them below, finishing the How Do Computers Work series!

[CPU, Memory, Input, and Output](#)
[Hardware and Software](#)