PLTW Virtual Learning

6th Grade Intro to Tech

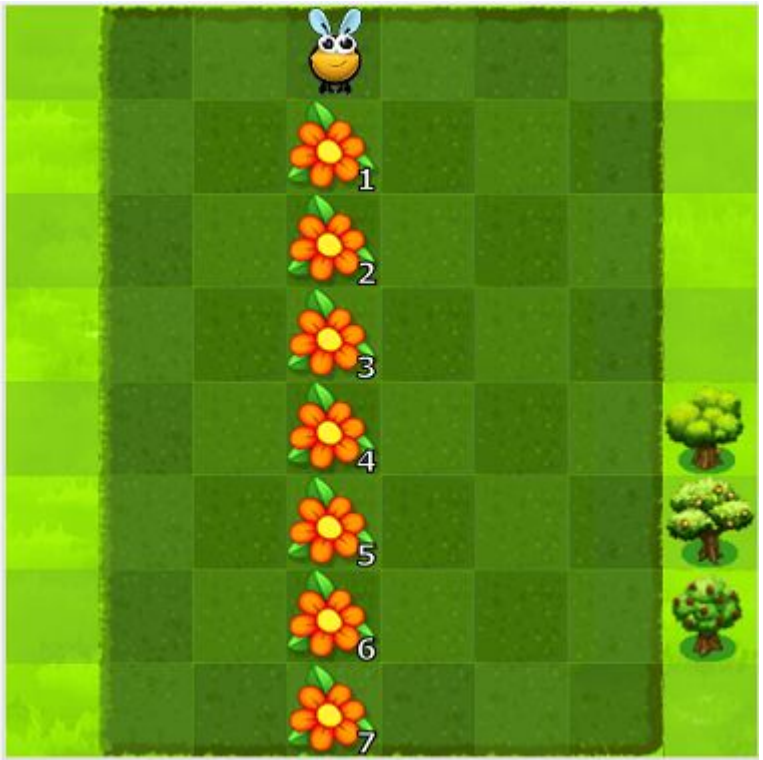
May 21, 2020

6th Grade Intro to Technology
Lesson: May 21 (Part 9 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:



We know about repeat blocks and loops, but how would you solve a puzzle like this?

If you were just using words to explain it instead of code, how would you tell the bee to collect the increasing amounts of nectar?

Lesson Introduction/Background Information:

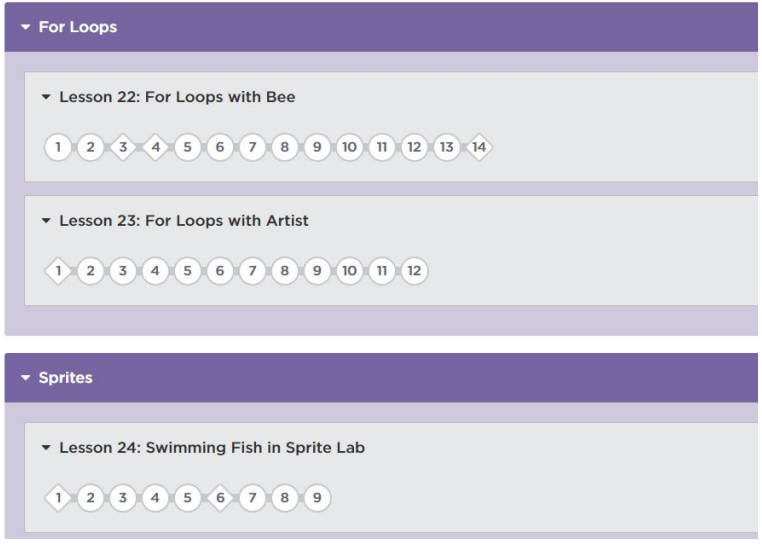
Regardless of your previous experience (or lack of) with coding, you are going to be spending the next two weeks working through structured coding lessons and learning some fundamental concepts of writing code that apply whether you are doing blocky (drag and drop) coding or you are doing text-based 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!)

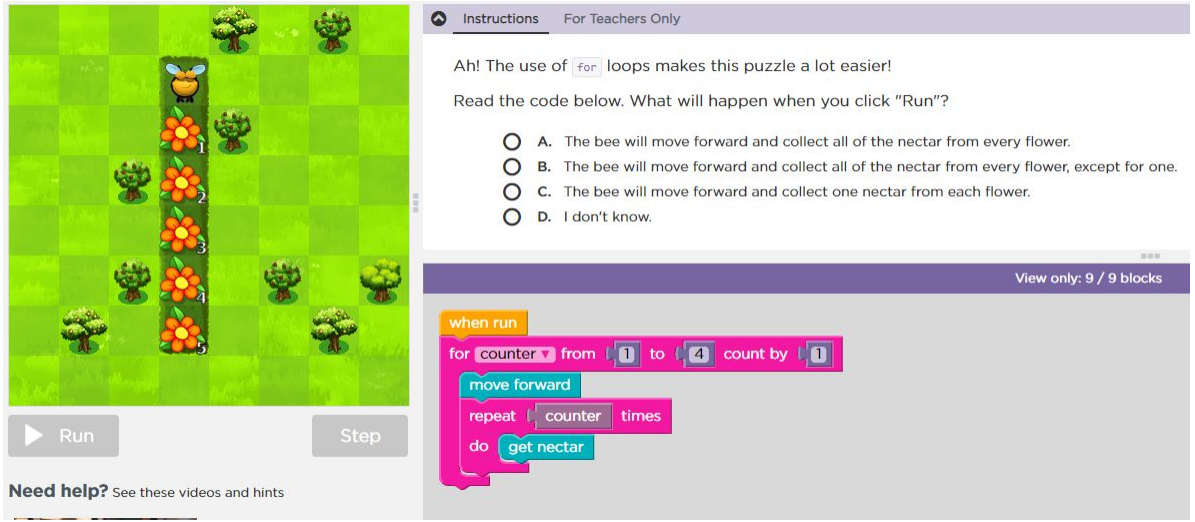
Practice:

- Navigate through the course catalog to the Express Course, or follow this link: https://studio.code.org/s/express-2019
- Today you are going be introduced to for loops, which allow you to solve puzzles like the one in the warm-up, in lessons 22-23. You will also start the last unit with lesson 24 today.



Practice:

- For loops are the type of code that was buried behind repeat loops the whole time, as the video in section 4 (lesson 22) explains. Explore this concept with today's lessons, featuring the Artist and that friendly bee again.



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:

Tried this and think it is too easy for you?

In this section, I'll be recommending some other coding sites that will be a bit more challenging than code.org because they require text-based coding.

Today's recommendation:

Zulama MakeQuest