



PLTW Virtual Learning

6th Grade Intro to Tech

May 13, 2020



6th Grade Intro to Technology Lesson: May 13 (Part 3 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:

Find a volunteer in your family to practice your sequencing skills you learned yesterday on. Ask them to only follow your verbal instructions, exactly as you say them. You aren't going to tell them what the end goal is, because they should achieve it if you give instructions clearly!

Then try to sequence your instructions correctly and get your family member to:

1. Do a jumping jack
2. Come give you a high five

Lesson Introduction/Background Information:

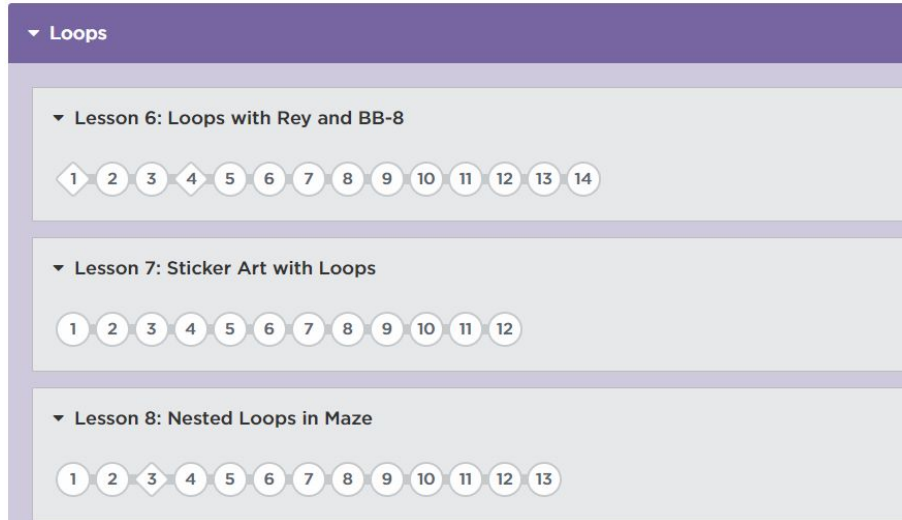
Regardless of your previous experience (or lack of) with coding, you are going to be spending the next two weeks working through structured coding lessons and learning some fundamental concepts of writing code that apply whether you are doing blocky (drag and drop) coding or you are doing text-based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

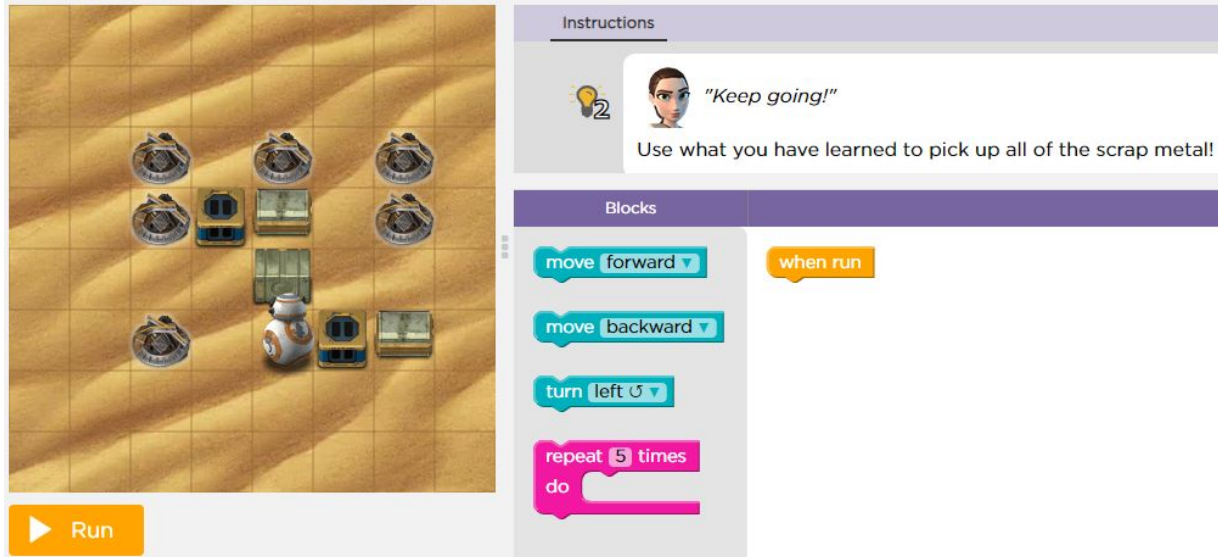
Practice:

- 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 work through the concept of Looping, or taking some of the repetition out of our code, in Lessons 6-8.



Practice:

- You might have discovered while working on sequencing that sometimes code repeats itself, and it gets annoying to have to keep putting the same code in that really just needs to be repeated. That is what loops do for us! Explore this concept with today's lessons, featuring Star Wars, sticker art, and a friendly bee!



The screenshot displays a programming interface with a Star Wars theme. On the left, a 10x10 grid shows a desert landscape with BB-8 in the center. Several pieces of scrap metal are scattered around. A 'Run' button is at the bottom left. On the right, the 'Instructions' panel shows a character saying "Keep going!" and the text "Use what you have learned to pick up all of the scrap metal!". The 'Blocks' panel contains a 'when run' block followed by a loop block: 'repeat 5 times do' containing 'move forward', 'move backward', and 'turn left'.

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:

[CodeHS](#)