

Unit 18 CODE- Move It, Move It

Content Area: **Unified Arts**
Course(s): **Computer Science 1, Computer Science K**
Time Period: **June**
Length: **10 Days**
Status: **Published**

Unit Summary

This lesson will help students realize that in order to give clear instructions, they need a common language. Students will practice controlling one another using a simple combination of hand gestures. Once they understand the language, they will begin to "program" one another by giving multiple instructions in advance.

Student Learning Objectives

Students will learn to...

- Recognize situations where they can create programs to complete tasks
- Predict moves necessary to get teammate from start to finish
- Convert movements into symbolic instructions
- Relate algorithms as programs to teammates

Essential Questions

- What is a program?

Enduring Understandings

Students will understand that...

- In order to give clear instructions, we need a common language.

Application

- Review- This is a great time to review the last lesson that you went through with your class. You can do this as one large group or have students discuss with an elbow partner. Here are some questions that you can ask in review:
 - What did we do last time?
 - What do you wish we had had a chance to do?
 - Did you think of any questions after the lesson that you want to ask?
 - What was your favorite part of the last lesson?
- Lesson Tip- Finishing the review by asking about the students' favorite things helps to leave a positive impression of the previous exercise, increasing

excitement for the activity that you are about to introduce.

- Vocabulary- This lesson has one new and important word:

New Word!

Program

Say it with me: Pro-gram

*An algorithm that has been coded
into something that can be run by a machine.*

Program - Say it with me: Pro-gram

- An algorithm that has been coded into something that can be run by a machine.
- Let's Control Ourselves- Ask your students if they remember helping you draw a smiley face last time.
 - Review the instructions by drawing as they guide you one step at a time.
 - Let them know that you're going to make a small change.
 - Now, I want you to give me two instructions at a time before I move my pen.
 - Can you do it again, but give me three instructions at a time?
 - When you give me multiple instructions at a time, you're providing me with an "algorithm" to draw each piece of the smiley face.
 - Now, suppose we were to have a secret "code" for each of those instructions. For example, "Draw an Eye" could look like this: (make a large circle with your hands). If we had special codes for each of those steps, then our algorithm would become a program.
 - We're going to play a game that allows us to program each other...and you'll do it all with your arms!
- Lesson Tip- Feel free to do an example map with the students as a class before breaking them into groups or even describing the rules (beyond how to react to each of the arm gestures). Learning through play is often more effective than spouting off all of the rules at this age.

Skills

Students will be skilled at...

- giving clear instructions.
- "programming" by giving multiple instructions in advance.

Resources

For the Student

- Maps and Key from [Move It, Move It: Multi-Step Adventure](#)
- Assessment Worksheet: [Move the Flurbs 2](#)
- Scissors
- Glue

For the Teacher

- [Lesson Video](#)
- Teacher Lesson Guide
- Print one [Move It, Move It: Multi-Step Adventure](#) activity pack on Cardstock for each group
- Print Assessment Worksheet: [Move the Flurbs 2](#) for each student