"IF-THEN" CODING ACTIVITY

Introduction

When you are on your phone and you click on an app icon, what happens? The app opens up for you to use! In other words, <u>if</u> you click on the icon, <u>then</u> the app opens! What about when you play a video game and you want your character to jump? <u>If</u> you press the button, <u>then</u> your character will jump!

In these examples, certain things have happened that have specific results. In coding, we make this happen by using what we call "if-then" statements! In this fun activity, students can take turns being the "programmer" and "computers" to understand more about this concept without needing a screen!

Learning Objectives

1. Understand how specific conditions must be met for "If-Then" statements.
2. Understand the concept of "If-Then" statements.

Materials

1. Clear, open space for students to spread out.

Step-by-Step

1. Pick one student to start as the Programmer. The rest of the students will act as Computers.

2. The Programmer chooses 2 actions: the "If I…" action, and the "Then you…" action.

3. The Programmer tells the Computers the actions by saying: "If I [action], then you [action]." For example, the Programmer might say, "If I raise my right hand, then you jump up and down."

4. The Programmer can introduce multiple commands to make the game more fun! For example, they can say, "If I sit down, then you turn in a circle. If I clap, then you dance." This way, the Computers have to prepare for what the Programmer will do and will get a chance to test their memory!

5. Have different students take turns being the Programmer. Play for as long as you'd like!

Conclusion Qs

1. What is the relationship between the Programmer and the Computers?

2. When the Programmer gives a command, what do Computers do?

3. Define what are "If-Then" statements.