Lesson 6: Control with Conditions

Brief Description: Introduce conditional logic to make decisions within Scratch projects.

Objective:

- Understand and apply conditional logic using if-then and if-then-else statements.
- Enhance projects by making them react differently based on conditions.

Standards:

• **CSTA 1A-AP-17:** Decompose (break down) problems into smaller, manageable subproblems to facilitate the program development process.

Procedure:

- 1. **Understanding Conditions (10 minutes):** Explain the concept of conditions in programming and how they can control what happens in a project.
- 2. **Using Conditional Blocks (20 minutes):** Demonstrate how to use if-then and if-then-else blocks in Scratch to make decisions.
- 3. **Conditional Logic Activity (20 minutes):** Students add conditions to their projects, such as changing behaviors based on user input or other criteria.
- 4. **Peer Review (10 minutes):** Students test each other's projects and suggest improvements or additional conditions.
- 5. **Discussion (10 minutes):** Reflect on how adding conditions changed the project and discuss the challenges faced.

Guiding Questions:

- How did you decide which conditions to use in your project?
- What impact do conditions have on how the project functions?

Conclusions: Students should understand how to use conditional logic to influence the flow and outcome of their projects, gaining skills in more dynamic programming.