Explore: Conditionals

Blue Level Unit 3

Objectives

In this activity, students will:

- Explore an existing Scratch project on forever loops using the TIPP & SEE Model
- Remix the TIPP & SEE projects

Activity Description (45-60 minutes)

5 min.	⭐ **Introduce**: Activate students' prior knowledge from the previous lesson on Conditionals
5-10 min.	💥 **MINI-LESSON** *(optional)* Review the concept of **conditionals** using pages 10 and 11 (EN / SP) in the Blue Level Student Workbook. (5-10 min.)
10-20 min.	📝 **PLAN** Provide students with enough time to explore the TIPP&SEE Projects - Mini Golf (slides 5-6). Drop the link in the students' Google Classroom and students will be able to access the program with very little problem. Students should then read the **title**, **instructions** (how to use it), and **purpose** (skills to learn) of the project. Plan to mention that all projects must have these three components. This information helps the user under the program and the code inside. Provide time to review the answers and reasons why that's the best option.
20-25 min.	🚧 **TINKER TIME** Provide students with work time in Scratch to begin creating their own version of the Dragon Boat Race program. Remind students how to navigate to the Scratch website, log in to their account, so they can save their work. During Tinker Time, students should use the Ball sprite's code to see what happens when they do the following: **1.** Change the number of degrees in the Turn Left block from 5 to 15. What happens? **2.** Does the Ball turn faster when the **LEFT** or **RIGHT**arrow is pressed?

	3. Change the  block on the Ball sprite to a  block. 4. Move the ball into the water Does the Ball do the **SAME** or **DIFFERENT** actions Going Deeper: Reload the project, click the remix button, click share, then: 1. Add a script to the **Ball** sprite to move the Ball when it touches the **Sand**. (Look at the Ball sprite's script for the water for help!) 2. Add a script to the **Hole** sprite to make it move when it is **touching the Water**. 3. Add **play sound blocks** inside the conditionals for the Ball and Hole sprites.
5 min.	📓 **REFLECT** Ask students to think back on their experience using the TIPP&SEE project today by responding to these reflection prompts: • How did the Mini Golf program help you understand conditionals in computer science? • How would you explain conditionals to another person?

Reviewing Student Work

★ Are students using forever loops to make things happen in their projects? Are students using events to make things happen in their projects? Are their events triggering a sequence of 2 or more actions, instead of just 1 action? Are they using the "when green flag clicked" event to *initialize* their project?

Lesson Notes

➕ Utilize a variety of resources to help students who get "stuck" while working on their project in Scratch. Encourage them to ask peers for support, explore Scratch tutorials or Starter Cards, or utilize one of these strategies to get unstuck!