Lesson 3: New Characters and Start on Tap Triggering Block

In this lesson, students will add multiple characters to their projects and learn how to use the Start on Tap triggering block. They will see how scripts are attached to characters so that when a character is deleted, the script disappears with the character.

Discussion (5-10 minutes):

Compare a staged play to ScratchJr. Each character in a play reads his or her own lines from a script. ScratchJr works in a similar way. A ScratchJr project consists of a separate set of instructions for each character to follow. Just as characters in a play read only their own lines, characters in a ScratchJr project perform only their own instructions.

As we learned in the previous lesson, we can trigger action with the Green Flag. If we tap the green flag at the top of the screen, the character will reset its position before it runs the script. When we have multiple characters, the Green Flag will trigger action in all the characters whose scripts begin with a green flag, all at the same time. It will also reset the positions of all those characters before running their scripts. When you have multiple characters whose scripts all start with a green flag triggering block, you can see a big difference between tapping on the green flag in the script area and tapping on the green flag at the top of the screen.

In this lesson we will also trigger action by tapping on the character itself. When we have multiple characters on the screen, tapping on a character will trigger only that particular character's script, even if there are other characters with the Start on Tap triggering block. Each of those characters will run their scripts only when we tap on them individually.

Mechanics (5-10 minutes) –
1. Add a character by tapping the plus sign on the left.
2. Delete a character by long pressing a character (press and hold), either on the stage or in the list of characters.
3. Add scripts to a character. Tap another character in the list and show how those scripts are no longer visible, since each character has its own scripts.
4. Show how to copy a script from one character to another (drag it from the programming area to the character area).
5. If you work hard on a script and then decide you want to change the character, keep in mind that if you delete the character and add a new one, you will lose your script as well. To avoid this, you can add the new character that you want, then drag your script to the new character to copy it, and then delete the character that you don't want anymore.
6. Show how Start on Tap works. Note: Many children will have difficulty tapping on a character without moving it. They will think that the script is not working. In fact, if you move a character while trying to tap on it, the script will not run. To get the script to run, you have to tap on a character without moving it.
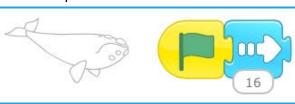
Self-directed work (20 minutes):
Create the Sharks and Minnows game, or Fishy Fishy Cross My Ocean, in ScratchJr. You can use the whale character in place of a shark. Make several sharks and one minnow. Program the sharks to respond to a flag and the minnow to respond to a tap. Notice that you will be able to get multiple sharks to move across the screen with the green flag, but you will only be able to get one minnow at a time to move with a tap.

Here are scripts that will work for this project:
Minnow script: Shark script:

Wrap-up (5-10 minutes):
Ask a few students show their projects to the class. Try to select students who have projects that look different from each other.

● ●