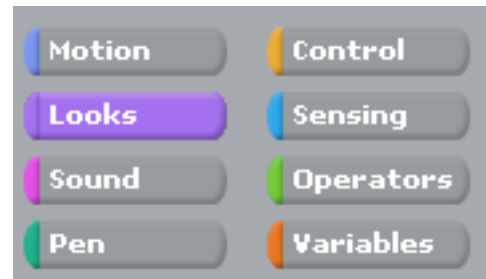


Introduction to Scratch; Loops, Behaviors, Debugging

Today in class we introduced and reviewed the **interface** of the Scratch program. We looked at the **Stage** (for backgrounds), **Sprites** (for characters and things that move in a game), the 3 sprite tabs: **Scripts** (code), **Costumes** (for sprite animation), and **Sounds**, and the 3 stage tabs: Scripts, Backgrounds, and Sounds. Each sprite in a project will have its own scripts, costumes and sounds. The Stage can have its own scripts, backgrounds, and sounds.

Scripts are made using the Code Blocks.

Scratch has six (6) types of Code Blocks. All Scratch projects use the Control (yellow) blocks with at least one other block type. For our first game we will use the Control, Looks, Sensing and Sound blocks. More advanced students can add Motion if they like.



Computer Programming Concepts:

Looping – The yellow Control blocks include a few ways to loop or **repeat** blocks of code. We looked at the “Repeat” and “Forever” loops blocks.

Behaviors – The actions (movements, effects, sounds) of a Sprite or Background

Debugging – Debugging is finding and fixing problems with your code

Instructions for Class Assignment

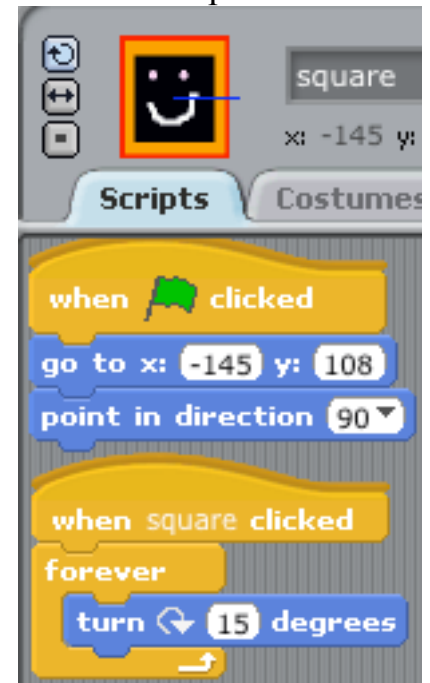
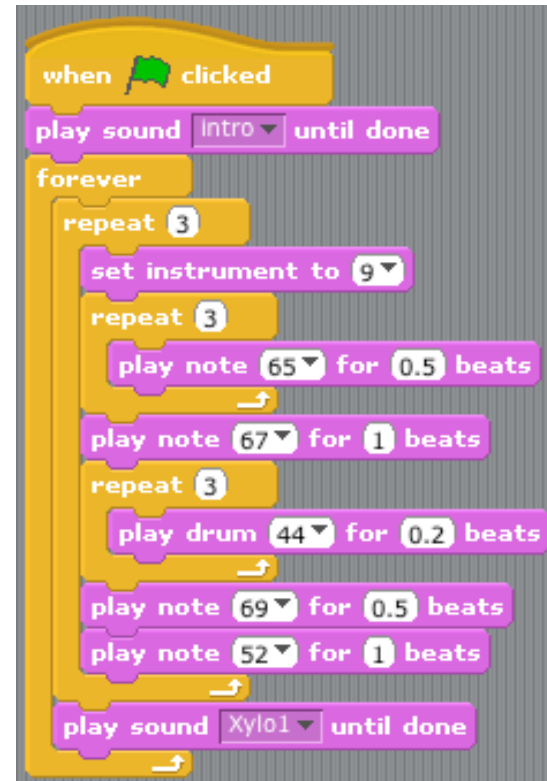
1. Create 2 sprites using the Paint editor. Place them on the Stage where you would like them to be at the beginning of the project. *Give each Sprite a unique name that describes the sprite.*
2. Import 2 sprites from the Costumes folder in Sprite. Place them on the Stage where you would like them to be at the beginning of the project. *Give each Sprite a unique name that describes the sprite.*
3. Use the go to block in the dark blue Motion block group to tell each sprite where to go at the beginning of the project. This block should go right after the yellow Green Flag block from the yellow Control block group.



Art & Music Projects in Scratch

2

4. Click on the Stage and go to the Sound tab.
Name the new sound “intro”. Record a sound that tells the user to click on the different sprites to see what happens. In the scripts tab, drag the pink Sound block to play that sound.
5. Still in the Stage, go back to the Sound Tab.
Create a sound loop from the instrument, note and drum blocks using Repeats inside a Forever loop.
Experiment with different notes and note and drumbeat lengths. Import one of the music loops and add it to the end of your original loop. Add the whole Forever loop to the end of the intro Sound block above. See the example at right for a model. Test it!
6. Now click on each sprite and make sure each has a unique name describing it. Add the yellow “when (sprite) clicked” block to the scripts tab of each sprite. Think about what you want to happen when each sprite is clicked.
7. Add a new, different behavior for each sprite. Try mixing Motion, Looks and Sound behaviors. Make sure you set direction and any looks settings you want at the beginning of the script panel under the green flag for each



Test and Debug!

If you have email and want to ask me anything, you can email me at alfiawallace@yahoo.com See you next week! Keep on Scratching! ☺ ~ Mrs. Wallace