

## Example of a teaching outline used by the Teen Tech Squad to lead a two-day workshop

### *Day 1*

#### Introductions

- Instructors and volunteers
- Please pay attention to whoever's talking at the front of the room
- Icebreaker activity to help kids relax a little

#### Get everyone started with Scratch website

- Go to Scratch website (already open)
- Demonstrate how to run a project – look at project notes, click the green flag
- Let kids explore projects. invite kids to come up and show favorite project
- Explain how you can load your project up to the website and the whole world can see it, download it, remix it

#### Intro to Scratch platform

- Show kids how to open Scratch (click the cat)
- Explain that there are projects saved in Scratch
- Show people how to open a project, how to run it (click the green flag)
- Show how to get info/notes about a project, how to make it full screen
- Let kids explore projects
- Invite kids to come up and show favorite project

#### EVERYONE LOOK UP FRONT!!!

- Most people have probably figured out a few things about the platform, but... here is a basic orientation to the platform. Refer to Scratch Reference Guide (available on the Scratch website) Page 2 has diagrams that name all the parts of the platform and

helps orient users.

- Green flag/stop sign
- stage /scripts area
- area where the sprites are—your characters are called sprites, they do what scripts tell them to do, they do everything on the stage
- On the left, all the programming blocks you have to choose from

## **EVERYONE LOOK UP FRONT!!!**

### **Create a sprite**

- Scratch comes with sprites, but we want you to try to draw one. Something simple, doesn't have to be perfect
- Make a sprite that represents you. Doesn't have to look like you, maybe a border collie or a tennis ball represent you, only you can decide that sprite will be!
- Use scissors, cut the cat
- Click on paintbrush to open paintbox
- Demonstrate some paintbox elements
- how to change paint color / how to change brush size
- fill tool
- circle/square tool
- eraser / clear/ undo!
- Explain about the transparent color (checkers)
- DON'T DRAW BACKGROUND, JUST DRAW CHARACTER
- Make a SIMPLE drawing
- Click OK when done

## **SAVE!!!!!!**

## **EVERYONE LOOK UP FRONT**

## **HAND OUT SCRATCH CARDS**

### **Animation—explain how it works**

- How do cartoons on tv work? series of pictures with small changes to create an illusion of movement
- Make a copy of your sprite's costume, make changes to the copy
- Important to make a small, subtle change to your sprite. Suggest blinking, talking, walking, etc. For this workshop, we're going to make your sprite into a SUPERHERO. So the change in your sprite will be what your sprite does when it changes into a SUPERHERO! Add a cape, add glowing eyes, etc.
- Refer to 1 hour animation handout (separate) for more details

### **SAVE!!!!**

### **Adding movement**

- Describe different classes/colors of blocks: control, motion, etc.
- Looks: say something

### **Adding sounds**

- Show where to find sounds saved in Scratch
- Show how to record

### **Adding background**

- Show where to find ones saved in Scratch
- May need to import to drawing platform if regular import does not work

If there's time, have everyone set up accounts and upload

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## ***Day 2***

### **Check in**

How is everyone? Did anyone go home last night and download Scratch and work on their projects? What was the most interesting thing you learned yesterday?

**Goal for today:** Today we're going to show you how to do some more complicated things with Scratch, like make sprites interact, how to program them so they can be controlled by the computer user (you or somebody else.) We'll also show you some different ways to make sprites move around. These things are helpful when making a simple game. That's our goal today, to make a simple game. If you have a project you're working on that you want to keep working on, that's okay. However, you'll want to pay attention when we're showing you new things, because they will help make your project cooler.

Either start a new program, or try this stuff on the project you started yesterday.

### **Advanced Movement**

- Explain XY axis, coordinates, how you can see where your mouse is on the screen by looking at the lower right hand corner
- Go to--for if you want your sprite to start at a certain location, like for example when you hit the green flag
- Glide--for smooth movement to a specific point
- Have kids try this out
- Hand out Key Moves Scratch card, talk about controlling sprite with mouse or keyboard. Have them try it out.

## Sprite-Sprite Interaction

- Add a second sprite (pull out a ready-made one--does everyone know how to do this? Demonstrate how to do this)
- Demonstrate swirl, size change, color change (u pick) on this second sprite
- We're going to write a program to make the second sprite change color (for example) after the first sprite bumps into it.
- Demonstrate, have kids try, have kids get up and look at each other's projects if they want

## Gaming Breakout

- What are the elements of a game?  
Timer (teach about Variables)  
Points counter (teach about Variables)  
Character the player controls  
Objective—how do you score points  
Bad guy—takes away your points?
- Everyone work on their games, ask if you need help

Make sure everyone saves, try to get everyone to upload to server, try to get everyone to walk around and do show-and-tell of their projects.

Collect usernames and Friend!