**Scratch 2.0 Tutorial**

**Scratch is…**

**Scratch** is a programming language and online community where you can create your own interactive stories, games, and animations.

**To Start Scratch**

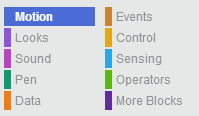
* + Open Scratch @ <http://scratch.mit.edu>
  + Either make an account or just click “Create” to start a project
  + If you made an account, save & name your project by clicking “File” and then “Save Now”

Some Important Terms

* + **Sprite** – what you program
  + **Stage** – where your sprite “performs”
  + **Script** – where you put your puzzle pieces

\*To move Scratch before you start running the program, click and drag Scratch to the location you want him to start

**To Start & End the Program**

* + Start - Click the green flag, drag Scratch back to starting point each time
  + \\osiris\SecHomes\GY2015\201592\Pictures\Scratch\green.pngEnd – Click the red stop sign

**To delete a puzzle piece**

* + Drag it to the left panel

-There are different categories of puzzle pieces

* + Each color contains may puzzle pieces pertaining to that topic
  + Ex: **Motion** – includes puzzle pieces that make the sprite move & turn

**How to make a VERY simple project**

1. \\osiris\SecHomes\GY2015\201592\Pictures\Scratch\flag.pngClick File-New to start a new project
2. Click “Events” in the top right corner and drag the button to Scratch’s script
3. Then click “Motion” in the top right corner and drag any of the blue puzzle pieces to the script and attach it to the orange piece that is already there
4. Start the program (by clicking the green flag)

**This simple program will show you how Scratch works with just a**

**few puzzle pieces – once you can do this, you can start to add more pieces and get creative!**

**How to edit a costume**

* + Click the Costumes tab and click the Edit button for costume1or make a new costume
  + Use the Paintbrush, Eraser, Fill tool, Rectangle tool, Oval tool, & Line tool and the color squares to edit Scratch’s costume
  + Click the somewhere else on the screen to save the changes that you made to the costume

**How to Create a background**

* + Click the Stage icon in the lower-left corner and then click any of the

four images below “New backdrop:” to edit the background

* + You can choose a background from their library, paint a background, upload an image to use, or use the camera to take a picture to use as the background
  + To save it and go back, click “Scripts”

**Other Tips**

**To copy a block of code**

* Right click on the top puzzle piece you want to copy (it copies every puzzle piece that is below it)

**To copy code from one sprite to another sprite**

* Drag the block of code that you want to the picture of the sprite

**\\osiris\SecHomes\GY2015\201592\Pictures\Scratch\size.pngTo change a Sprite’s size**

* To make it bigger
* To make it smaller
* On the gray bar at the top of the screen, click the button (if you want it bigger or smaller) and then click on the sprite that you want to change
* Click on it as many times as you want in a row and then move your mouse off the sprite

**To create a new sprite**

* **\\osiris\SecHomes\GY2015\201592\Pictures\Scratch\new sprite.png**Click on one of the four images next to “New sprite” to either choose one from their options, draw one, upload an image to use, or take a picture to use

**To delete a sprite**

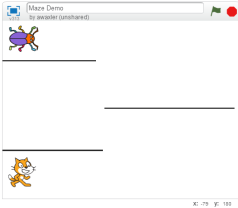
* Right click on the sprite you want to delete and then click “delete” from the options

[http://scratch.mit.edu/scratchr2/static/\_\_v-2013-05-22-19-09-4 g532f74b\_\_//pdfs/help/Scratch2Cards\_Jan2013.pdf](http://scratch.mit.edu/scratchr2/static/__v-2013-05-22-19-09-4%20g532f74b__//pdfs/help/Scratch2Cards_Jan2013.pdf) \*\*Click on the link above to go to a website with helpful tips

**How to Make a Maze**

* 1. Create a new project and save it with the name “Maze”
  2. Add a new sprite to the project & choose to paint it
  3. Draw a few lines of any color to create a maze and name it “Maze”
  4. Use the Shrink sprite button at the top of the window to resize the

Scratch sprite so that he fits in the lines of the maze

* 1. Drag Scratch to the desired beginning position of the maze
  2. Add code like this to make the arrow keys work
  3. To make Scratch go back to start if he touches the lines of the maze, add code like this, but make the x and y numbers to wherever you want Scratch to start the maze

**\*\*** If you want to make your maze more complex,

you can add another sprite and put it at the end of

the maze for Scratch to reach



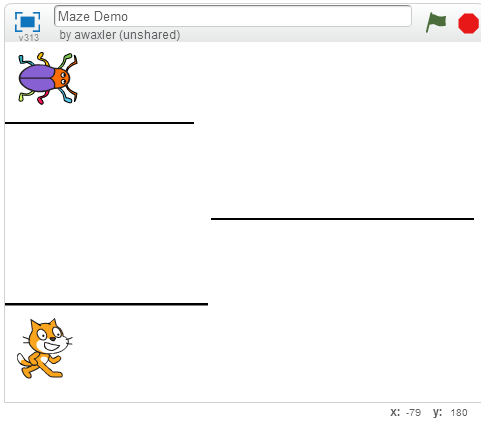
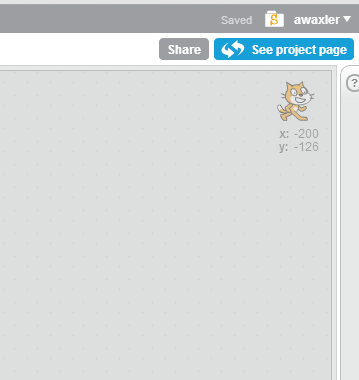
* To do this, add code like this
* Where it says “Beetle” make sure it says the name of the new sprit
* You can also change what Scratch says after it touches the new sprite

(where on my code it says “Good Job!”)

* Lastly, make sure you make your x and y numbers wherever you

want Scratch to start the maze (to find these numbers, drag Scratch to

where you want him to start the maze and record use those x and y numbers that are located in 2 places)

**1. 2.**

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To view my Scratch Demo Programs… Go to <http://scratch.mit.edu/search/projects/?q=awaxler&date=anytime&sort_by=datetime_shared>