Exploring Computer Science

Introduction to Scratch

What's Scratch

- Free programmable toolkit
- http://scratch.mit.edu
- MIT project
- Designed to let you think about "recipes" without getting bogged down in syntax

Algorithms

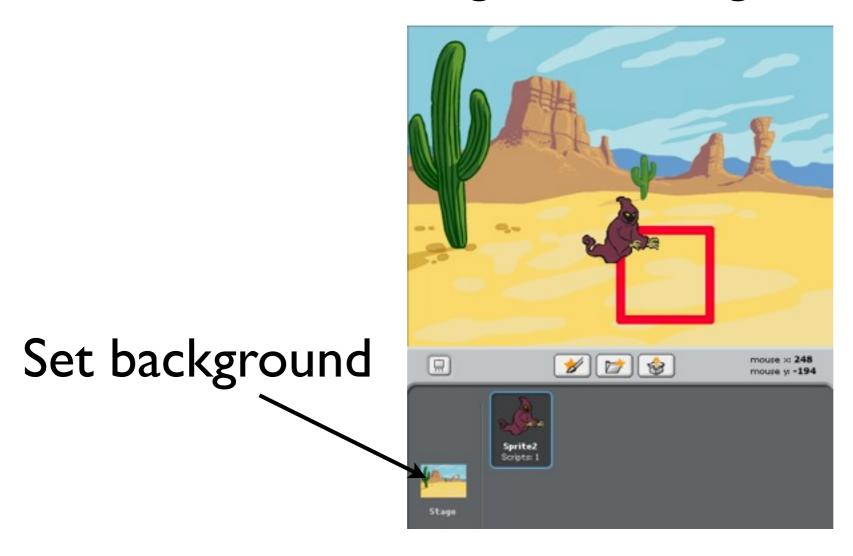
- More serious word for 'recipes'
- Well-defined set of instructions for completing a task
- People spend their entire lives studying and inventing algorithms

Sprites and scripts

- The animated character is a sprite
- You give it instructions in a script
- You can add and remove sprites, resize them, etc

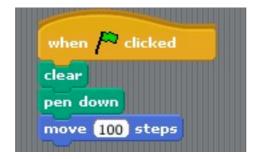
The stage

- Scripts are executed on the stage
- You can change the background



Drawing with a sprite

- Use a combination of motion and pen commands
- For example, to draw a horizontal line:



Things to play with

- Change color
- Change thickness
- Make it draw the same line each time

Your turn!

- Choose a sprite and a background
- Make your sprite draw a square
- Make sure it's in the same position each time the script is run!

