This is the second lesson of the three-lesson workshop. The lessons are designed to incorporate time for the participants to experiment with the software on their own. This second lesson will move onto some more advanced concepts use in Scratch. There are 2 project that will be created: an art project and a chase game.
Intro to Scratch

Lesson 2
Sensing & Events

John Flynn
John Pearsall
Mike Pettiglio
Yiming Wu
Class Objectives

- Have Fun!
- Use debug tool
- Add randomness to the project
  - Add random sprite
  - Use random operators
  - Use conditional statement
- To understand
  - Sequence and iteration
  - Event
Key Terms

- **Random Operator** – a block used to create chance

- **Sensing** – allows a Sprite to interact based on touch

- **Coordinate System** – the ‘X’ and ‘Y’ value of a specific location on the stage

- *****Hint** – if you don’t know what a block does > Right click it and select “help”**
Chase Game - Background

- Click **stage** > **Backgrounds tab** > **import**
- Choose **underwater** from **nature folder**
- Click **Sounds tab** > **import**
- Choose **Pop** from **Effects** folder
Chase Game - Movement

- Choose two sprites (Dragon1-a and Octopus1-a)
- Octopus - Use **random operator** and **glide 1 sec to x, y blocks** to move one sprite randomly
- Dragon - Use **point towards Octopus** and **move 2 steps** to move the other sprite toward the first one
Chase Game - Control

- Use **point towards mouse-pointer** and **move 10 steps** to control octopus with mouse
- **if statement**, **greater than operator**, and **distance to mouse-pointer** to optimize the movement
Chase Game – Event 1

- Event of octopus
- Use **touching Dragon blocks** and **if statements** to trigger events
- Use **say You got me! For 1.5 secs block** to create the event
Chase Game – Event2

- Add event to Dragon
  - Click **Costumes tab** > **import**
  - Choose `dragon1-b` from **fantasy folder**
  - Add the script to the **Dragon** sprite
Chase Game - Effects

- Add effects to octopus
  - Click **Costumes tab>Copy>Edit**
  - Use 🔄 and 🟧 to change the color of the octopus
  - Use **if-else statement** and **touching Dragon block** to change the costumes
Chase Game - Initialization

- Set the initial positions of the dragon and the octopus