

## **Module 1: Introduction**

- Icebreakers
- Discussion
  - Technology/computers in our lives
  - Uses in the world
- Overview of course
- Code art examples

## **Module 2: Painting with the Mouse**

- Learning the mouse with MS Paint
  - Opening applications
  - Clicks and double-clicks
  - Choosing tools/brushes
  - Saving files

## **Module 3: Being Creative with the Keyboard**

- Learning the keyboard with Notepad
  - Opening applications
  - Saving files
- Creating folders (right-click)
- Navigating the OS (folder structures and searching)

## **Module 4: The Internet**

- Navigation, searching, scrolling
- Creating an account/logging in p5.js web editor
- Downloading/uploading photos

## **Module 5: Grids and Pixels**

- Review of coordinate systems
- How computers display info (pixels)
- First sketch: the ellipse function

## **Module 6: Shapes and Colors**

- Rect, Line, Point
- Understanding color: RGB values
- Fill and Stroke

### **Module 7: Variables and movement**

- Setup and Draw
- Introduction to variables and moving a shape
- Mouse interaction (mouseX/mouseY)

### **Module 8: If/else statements and resources**

- Bouncing ball - if(x>width) etc
- mousePressed, keyPressed
- p5 Reference - how to read it
- Links/handout of other resources

### **Module 9: Loops and useful tools**

- What is iteration? What can we do with it?
- While loops and For loops
- random(), map(), constrain() functions

### **Module 10: Using and creating functions**

- What is a function?
- Built-in event functions in p5.js
- Creating your own functions
- Resources to continue coding independently