P5js online resources & download   http://p5js.org/
free

Processing download http://processing.org
shareware

Interesting sketches with code!   http://openprocessing.org
look for the p5js section - free

Max & Jitter https://cycling74.com/
paid

free opensource version Pure Data   https://puredata.info/

Osculator   http://osculator.net
mac only wii remote framework - shareware

Arduino software   http://arduino.cc/

Lada Ada -a great source for products and tutorials
http://www.adafruit.com/

another great source for hardware   http://sparkfun.com

Xbox & Oboes @ Chamber Music America 2020
Robbie Lynn Hunsinger
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P5js Online Coding Workshop

with Robbie Lynn Hunsinger

Your P5js online editor is here
https://editor.p5js.org/

sign up for a free account to save your work!

All about Pixels

Pixels are the tiny dots of color that
create our screens.

These same pixels form our
P5js canvas.

function setup() {
createCanvas(400 pixels wide, 400
pixels tall);
}

We code pixels to make a sketch, create
a background and make shapes.

If you look at a tv, phone or laptop
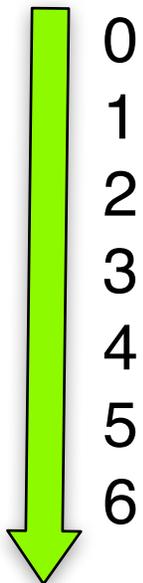screen under a microscope, you would
see individual
Red, Green and Blue pixels -
the same pixels we code to make our
colors in P5js.

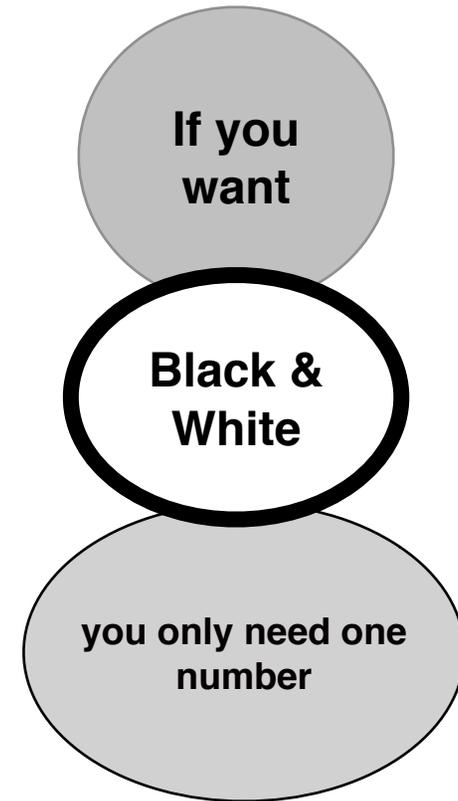Computer/tablet x-axis coordinates go from left to right. 0 is on the left.

0 1 2 3 4 5 6

The y-axis starts at the top of the screen and increases as you go towards the bottom

0
1
2
3
4
5
6

The units we are counting are pixels.

If you want

Black & White

you only need one number

Grayscale Examples

background(0);
makes a black background

fill(255);
makes a white shape

*The parentheses around the (number) and semicolon; are required punctuation in P5js

If you want

RGB Color

**you will need 3 numbers:
one for Red,
one for Green,
and one for Blue!**

RGB Color Examples

background(Red number, Green number, Blue number);

fill(0, 255, 0);
makes bright green

background(40, 0, 40);
this creates dark purple

Coding shapes

use pixel size and placement numbers to fit your canvas size

If they are bigger than your canvas, shapes will run off the screen

ellipse(x coordinate, y coordinate, shape width, shape height);

rect(x coordinate, y coordinate, width, height);

point (x coordinate, y coordinate);

line((x coordinate, y coordinate, connecting 2nd x coordinate, 2nd y coordinate);

fill(); and background( );
are functions already programmed into P5js.

They read the numbers in parentheses to produce either grayscale or RGB color mixes for individual shapes and the canvas background.

The higher the numbers, the lighter the color, and the lower the numbers the darker the color.

0 means none of that color will be added.

background(0,0,0); makes black
background(255,255,255); makes white

Robbie Lynn Hunsinger

- oboist & multi-instrumentalist
- new music and multimedia composer
- technologist & programmer
- improvisor
- experiential installation artist
- teacher

I would love to see more instrumentalists and composers explore the fascinating worlds of interactive media, code and technology. If you need help please feel free to reach out.

I welcome collaborations, commissions and workshop opportunities.

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