<https://www.youtube.com/channel/UCvjgXvBlbQiydffZU7m1_aw>

The Coding Train youtube channel tutorials.

<https://p5js.org/examples/objects-array-of-objects.html>

<https://p5js.org/reference/#/p5/mousePressed>

<https://p5js.org/reference/#/p5/mouseClicked>

<https://forum.processing.org/two/discussion/18231/mousepressed-create-objects-from-an-array>

^ Used to help create an array of ellipses that can be added to on mousepress of a button.

<https://p5js.org/reference/#/p5/createSlider>

<https://www.w3schools.com/howto/howto_js_rangeslider.asp>

<https://stackoverflow.com/questions/39288562/how-to-get-value-of-html-element-in-javascript/39288612>

<https://stackoverflow.com/questions/29103818/how-can-i-retrieve-and-display-slider-range-value>

<https://www.w3schools.com/jsref/prop_range_value.asp>

^ Used in creation of rgb sliders in html that can be linked to javascript variables

<https://www.w3schools.com/html/html5_canvas.asp>

<https://stackoverflow.com/questions/42001276/css-bootstrap-container-background>

<https://stackoverflow.com/questions/53980755/how-to-auto-position-my-buttons-on-my-website-with-different-screen-resolution>

<https://github.com/processing/p5.js/wiki/Positioning-your-canvas>

<https://www.w3schools.com/tags/att_div_align.asp>

<https://stackoverflow.com/questions/40948611/how-to-link-p5-js-setup-and-draw-with-html-canvas>

^ Used in positioning different Javascript and html elements on the page.

Research into audio visual projects:

<https://p5js.org/examples/objects-array-of-objects.html>

<https://editor.p5js.org/methio/sketches/MAo4isGMN>

Preliminary focus was on creating a series of moving pipes as per an old windows screensaver. Pipes would be added on a button or mouse click.

I had three main ideas to start:

1: Pipes as per windows screensaver.

An array of objects would be added to by clicking. These objects would move randomly across the screen, refreshing after a period of time.

2: Expanding shapes that fill the screen.

This idea was taken from a couple p5 examples I found on button pressing Booleans.

On holding down a button, different shapes would expand, encompassing the screen, before another random shape taken from a list of 3-4 potential shapes would start expanding.

<https://editor.p5js.org/TimSherbert/sketches/ryC0T0caX>

<https://editor.p5js.org/AndreasRef/sketches/oCb-MMETX>

3: Wavelength that changes in shape and colours over time. Potentially link to sound.

The most ambitious idea as it is the one I have explored the least in class or outside.

<https://p5js.org/examples/math-sine-wave.html>

This changed once I began coding.

At first I took the code from the pipeline example: (<https://editor.p5js.org/methio/sketches/MAo4isGMN>) and tried to see how everything worked.

I took out elements I didn’t like, changed others and ended up with a sketch that would simply place a few circles on the screen. At this stage I was having a lot of issues figuring out how to create an array of objects that would move across the screen. It was at this point that I turned to the Coding Train YouTube channel and an example of objects in an array from class. I managed to create a sketch that would start with no objects, then add objects into an array and display them once the mouse had been pressed. I also used my knowledge and tutorials of the latest creative coding workshop – vectors, to replace the generic randomised movement and jittering with vector positions and velocity. This would enable me to perhaps add gravity and an attractor at some point in the future, if I had the time and know-how.

Building on this success, I decided to change my design from a simple mouse press, to a button press – taking inspiration from the sketches behind my second idea. Every time I press the button, the object would appear.

At first this proved simple enough, however positioning the button on the screen proved so troublesome, that I scrapped the idea of creating a button in JavaScript and instead made it using html and CSS. Then, I made a function to add and subtract objects from my array and called the function in HTML.

What’s more, I then decided to add some colour to the sketch, but add it in a form that could be controlled by the user. Up to this point, most of my sketches had utilised randomised colour attributes so, I decided to add three sliders for Red, Green and Blue. I tried adding them in JavaScript but encountered the same issues as with the buttons, so instead added the sliders in HTML, styled them in a CSS and called the property values of each using getElementById and the .value function in JavaScript.