Review:

* Arrays
  + How to add, remove
* Loops: What types of loops are there?

Codeshare: <https://codeshare.io/0ggqll>

Arrays

* 2d arrays
  + Just arrays inside arrays
    - Can create with array literal
    - let activities = [
    - ['Work', 9],
    - ['Eat', 1],
    - ['Commute', 2],
    - ['Play Game', 1],
    - ['Sleep', 7]
    - ];
  + Show of console.table
  + Useful if you want to represent a chessboard, a 2d grid
  + How to iterate?
    - Use codeshare to get students to do it themselves
    - A: use nested loops

Arrays vs Objects

* Arrays and objects both store large amounts of data in a single variable. What’s the difference?
  + Arrays are indexed, the order is guaranteed
  + Objects use a key value system, order is kinda?? guaranteed
    - Depends on implementation
    - Just to be safe, assume objects aren’t guaranteed to be ordered
  + Semantics:
    - An object is one thing in your code
      * Represent a person, an animal, a car, etc
    - Arrays are lists of data
      * List of students for an attendance system
      * Number of people inside a bus

Functions / Methods

* Finally!
* What are functions
  + A bit of code that takes some input, runs some code, and then produces some output
  + The inputs are called arguments
* So this is a function:
  + I’ve been using it quite a lot so you guys should be pretty familiar with it by now
* A few ways to declare
  + function funcName()
  + let funcName = function()
  + IN javascript, functions are typically named with camel case.
    - Goes back to style guide stuff
    - Camel case is where instead of spaces, the first letter of the next word is capitalized
    - The first letter is not capitalized
* Returning
  + Returning return a value
  + This is the output
    - Show example
  + Returning can also stop the function.
    - If you want to function to stop early, you can just put a return statement in without actually putting anything after, and that will just stop function execution
* This
  + References where the function was called
* Arrow functions
  + Shorthand for functions
  + Most commonly used when you need to use a callback in another function
    - Show example of function that needs callback
  + You guys have probably seen me use this too
  + Cons
    - Anonymous
      * Does not have “this”
    - Cannot call itself
      * Explain recursion
        + Fib