Module Overview
Introduction to Computer Science and Micro:Bit
OMIS/OSU Teen CS Curriculum:

- CS basics: **Individual**
    - Computers are stupid
        - Teach kids how to think/write procedurally
        - Example: write out the steps to making a pb&j (and then actually make one use their set of instructions)
- Micro: bit basics:
    - Vocab:
        - Variables
        - Conditionals
        - Loops
        - I/O
    - Designing “name” program:
        - Creating a blueprint for the code that they’ll write from previously taught lessons
        - Turns out they were writing pseudocode!!
        - Created letters using Micro:Bit LeDs
        - Implement a PrintString function in MakeCode/JavaScrip
    - First, learn to code “Hello world” (as a class) in Python
        - Leading into “name” program where they learn to code their names (individually) with I/O using A and B buttons (this teaches both loops and conditionals)
            - A button will show their name once
            - B button will **loop** their name continually
- Security and Encryption module
    - No coding in this, it will be all logic/problem-solving based

    - Mastermind
    - One-Time-Pad

- Extra Modules:
    - 1 Student
        - Smiley
        - PIN input
        - Extras will be added
        - 2 Students
        - Rock Paper Scissors
        - Radio Module
        - 3rd 2 person module

- Final Project: **Paired Programming**
    - Break the lock
        - Teens will work together to break the lock
        - The lock will give off a code that will signal the key (1-7 in binary)
        - Rebecca will give clues if more difficult
        - Unlocking the lock will grant access to the source code
    - Modify the lock (After obtaining the source code)
        - Modify to the desired outcome