

Introduction to Computer Science and Micro:Bit

- ****All individual work****
- 1 CS basics ~ 1 hour
 - Computers are stupid
 - Example: write out the steps to making a pb&j (and then actually make one using their set of instructions :))
- 2 Micro: bit basics ~3 hours
 - Vocab [slides](#)
 - Variables
 - Conditionals
 - Loops
 - Pin I/O
 - Buttons
 - Radio
- 3 Security and Encryption module: ~7 - 9 hours
 - No coding in this, it will be all logic/problem-solving based
- 4 Extra Modules ~ 2 - 5 hours:
 - 1 Student
 - Flashing Heart
 - Smiley Face
 - Coin Flipper
 - Name Tag
 - Dice
 - Micro Chat
 - Mood Radio
 - Snap The Dot
 - Crashy Bird
 - Karel The LED
- 5 Final Project: ~4 hours
 - ****Paired programming if they want****
 - 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

Working code: <https://makecode.microbit.org/17071-54036-90995-40288>