Intro to Coding with python

Why learn coding?

- Build things for yourself and others
  - Games, websites, etc
- Automate something boring
  - Calculations, tasks
- Increase technical literacy
  - Different languages, technologies
- To have fun!
  - It's super fun I promise

Let's get started!

- Go to repl.it
- Click + new repl
- Choose python
  - Ignore pop up window

But wait what are these windows

- Right Window: REPL
- Middle Window: Editor
- Left Window: Files

What is a coding language

- Computers only understand Binary (1s and 0s)
  - It's very hard to write binary
- We create languages that can compile down into binary
  - The languages we create are easy to code in
- Each language has different features and difficulty levels
  - We're using python which is good for script making, web apps, and data mining
  - It is very easy to understand and very flexible
  - It also has a large community and cool libraries

Guess the number game

Game description

- Generates a random number
- Asks user to guess the number
- Tells user if the number is higher or lower
- Two modes
  - Limited play - 10 guesses
  - Free play - infinite guesses

Generate a random number (Output and libraries)

- Output
  - print("words")
- Libraries
  - from random import seed
  - from random import randint
  - seed(1)
  - randint(0,10)
- Try to print out a random number!

Ask user to guess (Input)

- Input
  - hello = input("say something\n")
- Try having a program print out some input!
  - Hint in the example above the input gets saved into the variable hello

Tell user if the guess is higher or lower (conditions)

- Conditions
  - if *condition*:
    - *do a*
  - elif *condition*:
    - *do b*
  - Else:
    - *do c*
- Use conditions to check input guess

Limited play (for loop)

- For x in range(0,5):
  - *code snippet*
- Repeats code snippet 5 times

Free play (while loop)

- while(condition):
  - Code snippet
- Will continue to run code snippet while the condition is true

Thanks for coming!