Programming Basics

Lists

DISCUSSION

- Where have you heard the term "list" before?

- What are the properties of a list?

Vocabulary

- **List** - In programming, a list allows you to hold multiple values in the same place. This is like using one variable to store multiple variables.

- Each value in the list is called an **element**.

- In Python, these values can be of any type: object, strings, and/or numbers.

Vocabulary

- Lists are named just like all other variables.

- The items in a list are listed out between square brackets [ ].

- Each element in the list is separated by a comma ,.

- Example:

```
grocery_list = ["apples", "bananas", "cereal"]
```

Debugging

- What might you accidentally do wrong when creating a list?

  - Share some findings with the class

DISCUSSION

- What errors did you find? What do they mean?

- Did anyone find something that didn't throw an error?

Follow along

- Let's use another type of loop (a for-loop) to do something with each element.
- Start with the keyword `for`
- Then, name a variable to store each item. I just use the word `item`.
- Then use the keyword `in` follow by the name of the list variable.
- Next is a colon and everything in the loop is indented, as we saw before.
- Write the instruction that should happen for each item in the list

```python
for item in grocery_list:
    print("I like " + item)
```

Practice

Write a program that:

- Creates a grocery list

- For each item in the grocery list print a line that reads "Make sure to add: " then the name of the item.