

## Leader's Guide: Lesson 5 - More fun with Python!

In our first program, we learned how to use:

- Print Statements
- If/Else Statements

Today, we're going to add one more tool to our coding toolbox:

- The Variable

Variables are used in coding and in math. A variable is a name we can give to a number or a piece of information that we want to be able to store and/or change.

In our first program today, we're going to use the variable `answer`. In the second program, we'll add the variable `times`.

Don't forget! When we use if/else statements, we have to make sure that we tab over the lines that follow (also called indenting, or blocking), then stop using the tab when you are ready to go on to the next thing. For example:

```
if age < 4:
    print("Wow! How are you so good at typing already?")
else:
    print("Hello!")
```

**Be prepared to need to reinforce the use of tabs in if/else statements more than once.**

## Activity 1: Make a Quiz

Today, we're going to create our very own quiz game. It's up to you to write your own questions and answers. Can you write the trickiest questions and stump your friends?

```
# my quiz program
print ("_____?")
answer = input()
if (answer == "_____"):
    print ("You are correct!")
else:
    print ("Wrong!")
```

Followup:

- Was it easy or hard to guess the right answer?
- What could you do if you wanted to have more than one right answer?
  - **Explain the concept of elif**
- Can you figure out how to add another question?
- What's the deal with sometimes using = and sometimes == ?
  - **Explain that = changes the value of the variable while == checks to see if the answer matches the value of the variable. For younger students, it can be useful to explain variables as boxes that you can fill with different values.**

## Activity 2: Keeping Score

Now let's add a scoreboard to our quiz game!

```
#my score keeping quiz program
times = 0
print ("_____?")
answer = input()
if (answer == "_____"):
    print ("You are correct!")
    times = times + 1
else:
    print ("Wrong!")
    times = times - 1
print ("Your score is", times )
```

Challenge:

Make a multi-question quiz and test your friends!