While loop syntax

```
while condition:
    statement                    # These indented statements form the body of the loop.
    statement
    [ more statements ... ]
statement                  # This statement is the first one run after the loop ends.
statement
[ more statements ... ]
```

A while loop runs a block of code as long as a condition is true. The first time the while statement is encountered, the condition is tested, and if it is true, all the statements in the body of the loop are run. Then the condition is tested again. If it is still true, then the body of the loop is run again. The condition is tested again, and this process continues---test condition, then run the body---over and over, until the condition becomes false, when the loop ends. At this point Python picks up with the next statement after the body of the loop.

Common idiom for asking the user if they want to keep looping:

```
# Set up a variable to manage the loop.
run_loop = "yes"

while run_loop == "yes":

    # Put whatever you want to happen
    # multiple times in this space.

    # Ask the user if they want to do it again.
    run_loop = input("Do you want to run it again? ")

# Here you put whatever you want to happen after the user stops the loop.
```