

Make a text game

Do all the code cards below to learn everything you need to make a text-based game in Python

A <u>string</u> is a fancy word for text - some characters strung together. Use quotation marks to make a string, like: <code>"I am a duck!"</code> ☐ Use <code>print("something")</code> with a string to print out a joke or silly sentence	An <u>integer</u> is just a whole number, like: <code>42</code>. You can do math things with integers, like: <code>42+8</code> or <code>16/2</code>. In coding, math symbols like <code>+</code> <code>-</code> <code>/</code> <code>*</code> are called <u>operators</u>. ☐ Do some math: use <code>print()</code> with integers to print what the year will be when you are 20 years old.	A <u>variable</u> is like a special box with a name on it. You can put a value (like a string or integer) in the box, and get the value out later using the name of the box. You put a value in like this: <code>name="Jim"</code> ☐ Put your name in a variable ☐ Put your grade (6/7/8) in another variable ☐ Print out your name and grade using the variables
The value stored in a variable can be changed over and over again (variables <i>vary</i> - get it?). ☐ Choose a fruit and put it in a variable (don't forget quotes <code>" "</code>) ☐ Print it out ☐ Put a different fruit in the same variable and print it again	In Python you can use the <code>input()</code> function to let the user of the program choose the value for a variable like this: <pre>fruit = input("Choose a fruit:")</pre> ☐ Use <code>input()</code> to put a value in a variable, then print it out	To compare values use <u>comparison operators</u> like <code>==</code> (equals), <code>!=</code> (does not equal), <code><</code> (less than), <code>></code> (greater than). For example: <pre>print(fruit == "banana")</pre> ☐ What does that <code>↑</code> line print? ☐ Try to print this comparison: fruit does not equal "pear".
To make a decision, you can use a <u>conditional statement</u> like <code>if</code> with <u>comparison operators</u> like <code>==</code>. For example: <pre>if fruit == "banana": print("yum") ↙you need to indent here!</pre> ☐ Print different reactions like "yum" to some fruits the user might enter	In coding, a <u>comment</u> is a line that the computer just ignores. You can use comments to turn off a line of code, or to write a note in the program for other coders to see. In Python, you make a comment with <code>#</code> <pre># This is a comment</pre> ☐ Comment out (turn off) a line of your code with <code>#</code> and see if it runs.	Is this variable holding an <u>integer</u> or a <u>string</u>?: <pre>bananas = "42"</pre> ☐ See what happens when you add numbers like this <code>"42"+"8"</code>. Print the answer out.
The <code>input()</code> function always makes a <u>string</u> variable. You can change it to an <u>integer</u> like this: <pre>age = input("Enter your age:") age = int(age)</pre> ☐ Use <code>input()</code> to get the user's age ☐ Turn it into an <u>integer</u> ☐ Calculate and print the year the user was born.	A <u>loop</u> is a piece of code that repeats. A <u>while loop</u> repeats the indented code as long as a <u>condition</u> is true. Example: <pre>word = "go" while word == "go": word = input("Enter a word:") print("Stopped!")</pre> ☐ Try out this <code>↑</code> bit of code. What does it do? ☐ Change the code so the loop keeps going as long as the word does not equal "stop"	Now put it all together to make a simple game. ☐ Use <code>input()</code> in a <u>while loop</u>, ask the user to guess your favorite fruit over and over again until they get it right. ☐ When they guess the wrong fruit, print "Yuck!". ☐ When they guess the right fruit, print "Yes!" and end the loop. ☐ Make another game using the ideas you learned!

