


Name: _____

Connecting Scratch and Python

Fill in **all blank cells** of the following chart in your own words using the filled cells as guides:

Programming Concept	Python Example/Explanation	Scratch Example/Explanation
<p>Variables - used to store information for later use</p>		<p>Click on orange 'variables' section then use 'make a variable' button. Give the variable a name (example: age). The variable can then be used wherever values can go.</p> <p>For example, in a conditional's test:</p>  <p>Variables always have rounded corners.</p>
<p>Definite loop - used to repeat parts of a program a fixed number of times</p>		

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Programming Concept	Python Example/Explanation	Scratch Example/Explanation
Conditional - used to change a program's behavior based on the results of a test	<pre>if(name == "BJay"): print("Welcome, master") elif(name == "Joe"): print("Access denied") else: print("Who are you?")</pre> <p>This program looks at the value stored in the name variable and gives the user different feedback depending on the value of that variable.</p> <p>In Python, conditionals are containers that control other statements. They always end with a colon and are followed by indented code.</p>	
Indefinite loop - used to repeat parts of a program an unknown number of times as long as a condition holds true.		

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Programming Concept	Python Example/Explanation	Scratch Example/Explanation
User input - allows users to supply values used in a program	<pre>name = raw_input("What's your name?")</pre>	
Random number generation - allows programs to have randomly-selected different behaviors		Click on the green 'operators' section to find the 'pick random _ to _' block. This block can be used anywhere a number can be used.

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What does the 'when green flag clicked' block at the top of the 'control' section do?

What does the 'broadcast' block in the 'control' section do? (right click on it and use 'help')

In what ways might using Scratch be better than using Python (give at least 2 specific reasons)?

In what ways might using Python be better than using Scratch (give at least 2 specific reasons)?