

<b>AP CSP Python with CodeX</b> <b>Mission 4 Obj 1-7 Assignment</b>	<b>Name:</b>
<b>Getting Started</b>	
<p>From car dashboards to giant stadium scoreboards, you see LED displays everywhere, and most of them are controlled by software. The CodeX display is small, but with <i>your code</i>, it can do a lot! Learn some CodeX display basics. Use CodeX's NeoPixels and push-buttons to create your first game. We're jumping in head-first with some real Python coding. <b>During this lesson you will complete the first goal:</b> Display and print text message strings.</p>	
<b>Mission 4 : Display Games Objectives 1-7</b>	
<p>Complete Objective 1 Read ALL the information. Click on <u>argument</u> to add it to your toolbox. What does "argument" mean?</p>	<p>An argument is passing data to functions.</p>
<p>Complete Objective 2 Read ALL the information. Click on <u>type</u> and <u>string</u> to add them to your toolbox. Give a fact about variable types: What are the three variable types discussed? What is a "string"?</p>	<p>The toolbox mentions four data types and None. It is the kind of information stored in a variable. You can use type() to read a variable's type name.</p> <p>The three variable types discussed in CodeSpace are CodeX image, integer and string.</p> <p>A string is a sequence of characters, like words or sentences. They are surrounded in single or double quotes.</p>
<p>Complete Objective 3 Follow CodeTrek to add code. Read the Hint. What error occurs?</p>	<p>A TypeError occurs.</p>
<p>Complete Objective 4 Read ALL the information. What built-in function will convert any value to a string? What built-in function will convert any value to an integer (if possible)?</p>	<p>str() converts anything to a string int() converts the argument to an integer</p>
<p>Complete Objective 5 Follow CodeTrek to add code. What happens when you run the code?</p>	<p>Only the second line of text shows on the screen.</p>
<p>Complete Objective 6 Take notes in the space provided. How did you change the code?</p>	<p>Changed the display.show() to display.print() so that both lines of text show on the screen.</p>
<p>Take the quiz. How did you do? Is there a concept you need to review?</p>	<p>Answers will vary.</p>

<p>Complete Objective 7</p> <p>Read ALL the information. Click on <u>branching</u> and <u>boolean</u> and <u>indented</u> to add them to your toolbox.</p> <p>Give a fact about branching:</p> <p>Give a fact about boolean:</p> <p>Give a fact about indenting:</p>	<p>Branches are decision points in code. Code takes a different branch depending on a condition. The if statement tells Python to only run the block of code indented beneath it if condition_A is True.</p> <p>A boolean is True or False. Boolean values are named for a famous mathematician George Boole. True and False are keywords. A boolean is often a result of a condition.</p> <p>Indenting is structuring blocks of Python code. Indented code is offset to the right by 4 spaces and follows a statement ending in a colon (:). Indentation needs to be consistent! It is used to define a block of code instead of { }</p>
<p>What is the algorithm for the game?</p>	<p>If a specific button was pressed then:</p> <ul style="list-style-type: none"> <li>• A pixel turns GREEN</li> </ul> <p>Otherwise:</p> <ul style="list-style-type: none"> <li>• A pixel turns RED</li> </ul>
<p>Submit the assignment to the teacher.</p>	