

**Computer Science 1 & 2**  
**Scope & Sequence: Year 1**

Semester 1		Semester 2	
Quarter 1	Quarter 2	Quarter 3	Quarter 4
<p>Technical Standards: 1, 2 Professional Standards: 1</p> <p><u>Unit 1</u></p> <p><b>Beginnings</b></p> <ul style="list-style-type: none"> <li>Algorithms</li> <li>Programming Languages</li> <li>SNAP Self-Portrait</li> </ul> <p>Technical Standards: 4, 5, 8 Professional Standards: 1, 2</p> <p><u>Unit 2</u></p> <p><b>SNAP Basics</b></p> <ul style="list-style-type: none"> <li>Building Blocks</li> <li>Drawing Shapes</li> <li>Animation</li> </ul> <p>Technical Standards: 1, 4, 5, 7, 8, 13 Professional Standards: 3, 5, 7</p> <p><u>Unit 3</u></p> <p><b>SNAP Basics</b></p> <ul style="list-style-type: none"> <li>Loops</li> <li>Nested Loops</li> <li>Inputs and Conditionals</li> <li>Variables</li> <li>Boolean</li> </ul>	<p>Technical Standards: 4, 5, 6, 7, 8 Professional Standards: 1, 2, 3, 5</p> <p><u>Unit 3</u></p> <p><b>Customization</b></p> <ul style="list-style-type: none"> <li>Abstractions</li> <li>Procedures</li> <li>Customization</li> </ul> <p>Technical Standards: 4, 5, 6, 7, 8, 13, 18, 19 Professional Standards: 4, 6, 7</p> <p><u>Unit 4</u></p> <p><b>Lists</b></p> <ul style="list-style-type: none"> <li>Lists</li> <li>Static Lists</li> </ul> <p>Technical Standards: 1, 2, 3, 11, 12, 13 Professional Standards: 1, 2, 7, 8, 9</p> <p><u>Unit 5</u></p> <p><b>Cloning</b></p> <ul style="list-style-type: none"> <li>Cloning Sprites</li> <li>Communication</li> </ul> <p>Technical Standards: 9, 15, 18, 19 Professional Standards: 1, 3, 5</p> <p><u>Unit 6</u></p> <p><b>Final Project</b></p> <ul style="list-style-type: none"> <li>Design Basics</li> <li>Research &amp; Ideate</li> </ul>	<p>Technical Standards: 1, 2 Professional Standards: 1, 2</p> <p><u>Unit 1</u></p> <p><b>Intro to Python</b></p> <ul style="list-style-type: none"> <li>Interactive Mode</li> <li>Script Mode &amp; Variables</li> <li>Variables &amp; User Input</li> </ul> <p>Technical Standards: 9, 15, 17, 18, 19 Professional Standards: 1, 3, 5</p> <p><u>Unit 2</u></p> <p><b>Conditionals</b></p> <ul style="list-style-type: none"> <li>Data Types &amp; Casting</li> <li>Booleans &amp; Expressions</li> <li>Conditionals</li> <li>Lists</li> </ul> <p>Technical Standards: 9, 10, 16 Professional Standards: 1, 2, 3, 4, 6, 7, 8</p> <p><u>Unit 3</u></p> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>Built in Functions</li> <li>User-Defined Functions</li> <li>Return vs Print</li> <li>Debugging</li> <li>Scope</li> </ul>	<p>Technical Standards: 11, 14, 15, 18, 19 Professional Standards: 7, 8, 9</p> <p><u>Unit 4</u></p> <p><b>Loops and Lists</b></p> <ul style="list-style-type: none"> <li>Looping Basics</li> <li>For Loops</li> <li>Nested Lists &amp; Looping</li> </ul> <p>Technical Standards: 1, 2, 3, 9, 10, 16 Professional Standards: 2, 3, 4, 5, 8, 9</p> <p><u>Unit 5</u></p> <p><b>Dictionaries</b></p> <ul style="list-style-type: none"> <li>Dictionaries</li> <li>Dictionaries Methods</li> <li>Dictionaries of Lists</li> <li>Dictionaries Looping</li> </ul>