

# Computer Science Principles At-A-Glance - Lamar CISD

Ongoing Skills Imbedded All Year	Professional Standards/Employability Skills/Technical Skills		
Grading Period	Unit Name	Estimated Time Frame	TEKS
<b>Grading Period 1</b> <b>29 Days</b>	<b>Unit 0: Course Introduction</b>	<b>5 Days</b>	
	In this introduction, the expectations and course structures will be established. Students will establish accounts for the resources that will be used through the class.		
	<b>Unit 1: Introduction to Programming (Karel the Dog)</b>	<b>10 Days</b>	
	<ul style="list-style-type: none"> <li>• Abstractions</li> <li>• Programming Style</li> <li>• Control Structures</li> <li>• Debugging Strategies</li> <li>• Designing Algorithms</li> <li>• Pair-Programming Activity</li> </ul>		
	<b>Unit 2: Programming with JavaScript</b>	<b>14 Days</b>	
	<ul style="list-style-type: none"> <li>• Programming Languages</li> <li>• Variables</li> <li>• Arithmetic Expressions</li> <li>• User Input</li> </ul>		
<b>Grading Period 2</b> <b>26 Days</b>	<b>Unit 3: JavaScript Control Structures</b>	<b>11 Days</b>	
	<ul style="list-style-type: none"> <li>• Comparison Operators</li> <li>• Selection</li> <li>• Iteration</li> </ul>		
	<b>Unit 4: Functions and Parameters</b>	<b>15 Days</b>	
	<ul style="list-style-type: none"> <li>• Parameters</li> <li>• Return Values</li> <li>• PT Practice</li> </ul>		
<b>Grading Period 3</b> <b>25 Days</b>	<b>Unit 5: Basic Data Structures</b>	<b>10 Days</b>	
	<ul style="list-style-type: none"> <li>• Data Structures</li> <li>• Data Abstractions</li> <li>• Traversing a List</li> <li>• Algorithm Efficiency</li> <li>• Simulation</li> </ul>		
	<b>Unit 6: Digital Information</b>	<b>15 Days</b>	
	<ul style="list-style-type: none"> <li>• Number Systems</li> <li>• Data Compression</li> <li>• Cryptography</li> <li>• PT Practice</li> </ul>		

<b>Grading Period 4 32 Days</b>	<b>Unit 7: Internet</b>	<b>14 Days</b>	
	<ul style="list-style-type: none"> <li>• Internet Hardware and Addresses</li> <li>• Routing</li> <li>• Packets and Protocols</li> <li>• Computing Systems</li> <li>• Impact of the Internet</li> <li>• Cybersecurity</li> <li>• PT Practice</li> </ul>		
	<b>Unit 8: Data</b>	<b>4 Days</b>	
	<ul style="list-style-type: none"> <li>• Visualizing and Interpreting Data</li> <li>• Collecting Data and Data Limitations</li> </ul>		
	<b>Unit 9: Create PT</b>	<b>14 Days</b>	
<ul style="list-style-type: none"> <li>• Practice PT</li> <li>• Preparation</li> <li>• Programming Period</li> </ul>			
<b>Grading Period 5 32 Days</b>	<b>Unit 9: Create PT</b>	<b>10 Days</b>	
	<ul style="list-style-type: none"> <li>• Practice PT</li> <li>• Preparation</li> <li>• Programming Period</li> </ul>		
	<b>Unit 10: AP Exam</b>	<b>12 Days</b>	
	<ul style="list-style-type: none"> <li>• Scheduled Mock Exam TBD</li> <li>• Big Ideas Review</li> </ul>		
	<b>Unit 11: Creative Development Projects</b>	<b>10 Days</b>	
<b>Grading Period 6 29 Days</b>	<b>Unit 10: AP Exam</b>	<b>1 Day</b>	
	<b>Unit 11: Creative Development Projects</b>	<b>28 Days</b>	
	Remainder of the six weeks period following the AP exam.		