

## Key Stage 4 Curriculum Map 2021-22

### Term 1

Subject: Computer Science	Year: 10		
Focus/Topic	UAE Links	HPL Links	Home Learning/ Recommended Reading
Student induction			
<ul style="list-style-type: none"> <li>Introduction, curriculum orientation, expectations and setup</li> <li>Number bases/system</li> <li>Binary arithmetic</li> </ul>	Accountability	<b>LINKING- Connection finding</b> <b>HARD WORKING-Practice</b>	<b>Reading:</b> Theory textbook chapter 4 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>Hexadecimal</li> <li>Character encoding</li> </ul>	The use of character coding for national and global communications	<b>LINKING- Connection finding</b> <b>META-THINKING-Strategy planning</b>	<b>Reading:</b> Theory textbook chapter 5 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>Representing images</li> <li>Representing audio</li> </ul>	Demonstrate image representation for the UAE flag	<b>ANALYSING-Complex and multi-step problem solving</b>	<b>Reading:</b> Theory textbook chapter 5 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>Data compression</li> <li><b>Assessments</b></li> </ul>	Demonstrate compression for the UAE flag	<b>LINKING- Connection finding</b> <b>META-THINKING-Strategy planning</b> <b>CREATING- Fluent thinking</b>	<b>Reading:</b> Theory textbook chapter 5 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li><b>Assessments – Data Representation</b></li> <li>Feedback and improvements</li> </ul>			
<ul style="list-style-type: none"> <li>Logic Gates</li> <li>Application software</li> <li>System Software</li> </ul>	Brotherhood and accountability	<b>ANALYSING-Precision</b> <b>AGILE- Enquiring</b> <b>EMPATHETIC- Confident</b>	<b>Reading:</b> Theory textbook chapter 7 <b>Home learning:</b> resources as per phoenix
<b>Half Term</b>			
<ul style="list-style-type: none"> <li>System Architecture</li> <li>CPU and Fetch Execute Cycle</li> <li>Magnetic Storage</li> </ul>	Support	<b>LINKING-Abstraction</b> <b>REALISING-Automaticity</b> <b>AGILE- Enquiring</b>	<b>Reading:</b> Theory textbook chapter 7

			<b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>• Memory</li> <li>• Optical Storage</li> <li>• Cloud Storage</li> </ul>	Online storage in the UAE	<b>LINKING-Imagination</b> <b>EMATHETIC- Confident</b>	<b>Reading:</b> Theory textbook chapter 7 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>• <b>Assessments – Computer Systems</b></li> <li>• Feedback and improvements</li> </ul>			
<ul style="list-style-type: none"> <li>• Network Types</li> <li>• Wired and Wireless</li> <li>• Topologies</li> </ul>	Networking topologies within GFS	<b>CREATING- Fluent thinking</b> <b>HARD WORKING-Perseverance</b>	<b>Reading:</b> Theory textbook chapter 8 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>• Protocols</li> <li>• TCP/IP Model</li> </ul>		<b>LINKING-Big picture thinking</b> <b>AGILE- Creative and enterprising</b>	<b>Reading:</b> Theory textbook chapter 8 <b>Home learning:</b> resources as per phoenix
<ul style="list-style-type: none"> <li>• <b>Assessments – Networking</b></li> <li>• Feedback and improvements</li> </ul>			
<ul style="list-style-type: none"> <li>• Security threats <ul style="list-style-type: none"> <li>○ Social Engineering</li> <li>○ Malicious code</li> </ul> </li> <li>• Protecting techniques</li> <li>• Penetration testing</li> </ul>	Security in the UAE	<b>EMPATHEIC- Concerned for society</b> <b>ANALYSING- Critical or logical</b>	<b>Reading:</b> Theory textbook chapter 9 <b>Home learning:</b> resources as per phoenix
<b>Winter Break</b>			