



Subject		Year	Term
Computer Science		10	
Topic			
1.3 Networks			
Content - Intent			
Prior Learning (Topic): Hardware, Data Representation			
<p>Networks and Protocols.</p> <p>The operation of communication networks, and which type of network is appropriate for different circumstances. When building a network, what hardware and software is required and the weaknesses of the different types. The main shape (topology) of a network, advantages, disadvantages types of hardware needed in different circumstances. Factors affecting bandwidth. Client-server systems.</p>			
Future Learning: Networks, Security, Programming			
What Knowledge and Skills will be Taught (Implementation)		How will your understanding be assessed and recorded (Impact)	
<p>Networks</p> <p>The internet and the protocols that make it work, with particular reference to the TCP/IP model. How the internet operates through routers, packet switching and IP addresses. Types of networks for different situations. How to manage bandwidth.</p>		<p>A test in class based on past questions and on those provided by the exam board which are part of the end of unit test package. Students will be given a grade based on published grade boundary data. Suggestions on how to improve answers to the next grade boundary will be provided. There will be interim on-line testing throughout the unit.</p>	
<p>Protocols</p> <p>How data is sent along network using TCP/IP and how each layer in the stack contributes a different protocol that allows for network and internet communication. POP3, HTTPS, HTTP, FTP, SMTP, IMAP</p>		<p>A test in class based on past questions and on those provided by the exam board which are part of the end of unit test package. Students will be given a grade based on published grade boundary data. Suggestions on how to improve answers to the next grade boundary will be provided. There will be interim on-line testing throughout the unit.</p>	
How can parents help at home?			
Ensure revision and homework is completed			
Helpful further reading and discussion (Including reading and Vocabulary List)			
<p>Reading</p> <p>CGP Computer Science revision book GCSE Pod Smart Revise Computer Science UK Teach ICT ISAAC Computing YouTube – Craig ‘n’ Dave</p>	<p>Vocabulary List</p> <p>Bandwidth Protocol Client Server Star Mesh</p>	<p>MAC address IP address TCP/IP stack Packets Packet switching</p>	