

## Year 10 Computer Science Learning Programme 5

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| <p>The LORIC skill focus for this LP is: COMMUNICATION.</p> <p>The Moral Virtues focus for this LP are: COURAGE and HUMILITY.</p> <p>Courage - Acting with bravery and overcoming fears.</p> <p>Humility - Having a modest view of oneself.</p> <p><b>What will I be learning about in this Learning Programme?</b><br/>Understanding the structure of networks and how they operate can help use them effectively.</p> <p><b>Where have I seen this learning before?</b><br/>Basic understanding of networks and systems architecture</p> <p><b>What could I use it for?</b><br/>Revision for Year 11 exam - Paper 1 (Computer Systems)</p> | <p><b>Literacy:</b></p> <ul style="list-style-type: none"> <li>• Capital letters must be used at the start of sentences and for the first letter of proper nouns</li> <li>• Full stops must be used at the end of a sentence</li> <li>• Question marks must be used at the end of a question</li> <li>• Apostrophes should only be used for possession or omission</li> <li>• Days of the week and months must be spelled correctly</li> <li>• Key words must be spelled correctly</li> </ul> |
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| <p><b>In LP5.1, I will know:</b> 13/05/24 - (WK 1)</p> <p>the key benefits and risks of connecting computers in a network;<br/>the structure of the four types of network that are covered.</p> | <p><b>Key Vocabulary</b></p> <p>Network</p> | <p><b>Homework</b></p> <p>Identify the characteristics and functions of a LAN and a WAN from your research.</p> |
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| <p><b>In LP5.2, I will know:</b> 20/05/24 - (WK 2)</p> <p>the components required to create a LAN;<br/>the role of each component in a LAN;<br/>mean by the performance of a network and why this is important and factors can affect the performance of a network.</p> | <p><b>Key Vocabulary</b></p> <p>Components</p> | <p><b>Homework</b></p> <p>Create a leaflet for a business to explain how they can get the best out of your network. Explain the factors that can affect the performance of a network and how these can possibly be overcome.</p> |
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| <p><b>In LP5.3, I will know:</b> 03/06/24 - (WK 1)</p> <p>what is meant by a client-server network;<br/>what is meant by a peer-to-peer network;<br/>my strengths and areas for development for my learning so far.</p> <p>Extended Task.</p> | <p><b>Key Vocabulary</b></p> <p>Peer-to-peer</p> | <p><b>Homework</b></p> <p>Using the worksheet provided, place the correct statements in the correct network structure.</p> |
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| <p><b>In LP5.4, I will know:</b> 10/06/24 - (WK 2)</p> <p>the internet is a worldwide collection of computers;<br/>the role of DNS as part of the internet;<br/>what is meant by hosting and the cloud and how web servers and clients work together.</p> | <p><b>Key Vocabulary</b></p> <p>Hosting</p> | <p><b>Homework</b></p> <p>Create one definition for each of the terms DNS, hosting, the cloud and the Internet.</p> |
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| <p><b>In LP5.5, I will know:</b> 17/06/24 - (WK 1)</p> <p>the diagram of a Mesh and Star Network;<br/>the difference between a full mesh and a partial mesh;<br/>the advantages and disadvantages of both.</p> | <p><b>Key Vocabulary</b></p> <p>Mesh</p> | <p><b>Homework</b></p> <p>Complete the encryption games to experience and learn more about the process and how it works.</p> |
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| <p><b>In LP5.6, I will know:</b> 24/06/24 - (WK 2)</p> <p>the difference between Wi-Fi and Ethernet;<br/>the advantages and disadvantages of both.</p> <p>Extended Task.</p> | <p><b>Key Vocabulary</b></p> <p>Ethernet</p> | <p><b>Homework</b></p> <p>Specify and justify connection methods for a given scenario.</p> |
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| <p><b>In LP5.7, I will know:</b> 01/07/24 - (WK 1)</p> <p>the purpose/importance of standards in networking;<br/>the name and type of communication (e.g. email, web pages, files) for the seven main protocols.</p> | <p><b>Key Vocabulary</b></p> <p>Standards</p> | <p><b>Homework</b></p> <p>Code an encryption program using a programming language of your choice.</p> |
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| <p><b>In LP5.8, I will know:</b> 08/07/24 - (WK 2)</p> <p>the purpose and role of packet switching;<br/>the main layers in Internet communication and explain what they do.</p> | <p><b>Key Vocabulary</b></p> <p>Switching</p> | <p><b>Homework</b></p> <p>Create their own video/animation about packet switching or Layers.</p> |
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| <p><b>Resources to support learning:</b></p> <p><a href="https://www.youtube.com/watch?v=oaNfeCIDMu0">https://www.youtube.com/watch?v=oaNfeCIDMu0</a><br/>Knowledge Organiser</p> |  |  |
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| <p><b>FFET Award Challenge for this Learning Programme:</b></p> <p>Complete 5 of the Python challenges available from your teacher.</p> |  |  |
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