



Assessment area	Developing	Secure	Excellent
<b>Data Representation</b>	<ul style="list-style-type: none"> <li>• Understand that computers store all data in binary.</li> <li>• Understand how numbers can be represented in binary.</li> <li>• Identify the 3 basic logic gates.</li> <li>• Understand every character has a binary representation.</li> <li>• Understand a bitmap image is made up of pixels.</li> </ul>	<ul style="list-style-type: none"> <li>• Be able to convert a decimal number into binary (and vice-versa).</li> <li>• Be able to use an ASCII table to convert a character/word into its ASCII representation.</li> <li>• Be able to define the keywords pixel and resolution.</li> <li>• Be able to complete the truth tables for AND, OR and NOT logic gates.</li> </ul>	<ul style="list-style-type: none"> <li>• Describe what a character set is and the difference between ASCII and Unicode.</li> <li>• Explain the difference between a bitmap and a vector images and explain when each would be most suitable.</li> <li>• Understand the relationship between the number of bits per pixel and colours.</li> </ul>
<b>eSafety &amp; PowerPoint skills</b>	<ul style="list-style-type: none"> <li>• Understand the concept of a 'digital footprint'.</li> <li>• Be discerning in evaluating digital content.</li> <li>• Know how to report concerns.</li> <li>• Be able to create a bullet list</li> <li>• Be able to insert text boxes</li> </ul>	<ul style="list-style-type: none"> <li>• Understand a range of ways to use technology respectfully.</li> <li>• Recognise inappropriate content, contact and conduct.</li> <li>• Explain how to use technology safely.</li> <li>• Be able to use different slide layouts</li> <li>• Be able to insert shape objects</li> <li>• Be able to create a simple table</li> <li>• Be able to insert an image</li> </ul>	<ul style="list-style-type: none"> <li>• Understand threats to computers and how to protect against them.</li> <li>• Protect online identity.</li> <li>• Protect privacy.</li> <li>• Consider appropriate design and suitable colour schemes / fonts.</li> <li>• Be able to add a hyperlink</li> </ul>
<b>Computer Systems</b>	<ul style="list-style-type: none"> <li>• Categorise components as input or output devices.</li> <li>• Identify the key parts of a computer.</li> <li>• Name storage devices.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the hardware components that make up computer systems.</li> <li>• Explain the role of the CPU</li> <li>• Given a scenario, select the appropriate type of storage.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the software components that make up computer systems.</li> <li>• Evaluate processor performance (clock speed, cache size and cores).</li> <li>• Describe different types of storage.</li> <li>• To be able to compare the advantages and disadvantages for SSD &amp; HDD</li> </ul>

<b>Programming</b>	<ul style="list-style-type: none"> <li>• Solve problems by decomposing them into smaller parts.</li> <li>• Make use of input and output.</li> <li>• Work with variables.</li> <li>• Use selection in programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Solve computational problems.</li> <li>• Use iteration in programs.</li> <li>• Understand uses of Boolean logic.</li> <li>• Use logical reasoning to find and correct errors in a program.</li> </ul>	<ul style="list-style-type: none"> <li>• To demonstrate their understanding by creating a program based on a given scenario.</li> <li>• Being able to create programs independently using variables</li> <li>• To be able to identify and explain the difference between Sequence, Selection and Iteration</li> </ul>
<b>Future Technology</b>	<ul style="list-style-type: none"> <li>• To be able to explain what wearable tech is.</li> <li>• Give examples of wearable tech and computer based implants.</li> <li>• To be able to discuss the advantages and disadvantages to the current wearable tech.</li> </ul>	<ul style="list-style-type: none"> <li>• Be aware that there are issues surrounding the use of technology.</li> <li>• To show some awareness of Privacy/ Cost/ Available Tech/ Target audience</li> <li>• To be able to develop their own wearable tech – this can be as creative as they wish.</li> <li>• To be able to present their idea/product in an adequate way.</li> </ul>	<ul style="list-style-type: none"> <li>• Discuss the benefits and risks of future technologies.</li> <li>• Demonstrate their ability to present their ideas in a clear and concise way.</li> <li>• To show good awareness of Cost/Target audience/Issues/What is it trying to achieve/Unique</li> <li>• To be able to explain how their product could be improved.</li> </ul>