

Key Stage 3 Subject Assessment Grid			
Subject: Computer Science		Year: 8	Unit: Computer Systems
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: <ul style="list-style-type: none"> <li>Understand the difference between computer hardware and application software.</li> <li>Identify the different input and output devices.</li> <li>Understand why computers are used.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Understand that computers can collect data using various input devices and sensors</li> <li>Explain when a particular input/output device should be used.</li> <li>Explain the different components to connect to a network.</li> <li>Know a range of application software that can run on the same hardware.</li> <li>Explain the advantages and disadvantages of a computer network.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Provide details explanation of the internal parts of a computer.</li> <li>Provide details advice with justifications about technology related issues.</li> <li>Able to carry out details self and peer assessments by reviewing work.</li> </ul>
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
	Foundation	Significant gaps	Significant gaps
Key Stage 3 Subject Assessment Grid			
Subject: Computer Science		Year: 8	Unit: Data Representation
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: <ul style="list-style-type: none"> <li>Recall the digital content can be represented in many forms.</li> <li>Explain different types of data: text, number etc.</li> <li>Know that digital computers use binary to represent all data</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Know how bit patterns represent numbers and images</li> <li>Convert numbers from binary to denary and vice versa.</li> <li>Perform simple operations using bit patterns e.g. binary addition.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Perform binary multiplication and division</li> <li>Explain how characters are stored in binary using ASCII</li> <li>Be able to explain the limitations of ASCII and the need for Unicode.</li> </ul>
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
	Foundation	Significant gaps	Significant gaps
Key Stage 3 Subject Assessment Grid			
Subject: Computer Science		Year: 8	Unit: Web Development (HTML and CSS)
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	Secure The student can: <ul style="list-style-type: none"> <li>Plan appropriate web design structure</li> <li>Use HTML to create a simple page of information</li> <li>Define a website</li> <li>Use appropriate names for pages</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Use and adapt HTML to add hyperlinks and different colours</li> <li>Create a website with no broken links or assets containing 2 pages minimum.</li> <li>Use a range of appropriate assets for audience.</li> <li>Use a consistent layout for each web page</li> <li>Evaluate their finished website.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Research and apply different HTML coding to enhance web page.</li> <li>Create a website with at least 3 pages which can be navigates between in a consistent and sensible manner.</li> <li>Use internal and external hyperlinks which enhance the website.</li> <li>Fully evaluate their own website.</li> <li>Comparing own website to renowned websites such as the BBC to improve final product.</li> </ul>
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
	Foundation	Significant gaps	Significant gaps
Key Stage 3 Subject Assessment Grid			
Subject: Computer Science		Year: 8	Unit: Python Programming
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
	Secure The student can: <ul style="list-style-type: none"> <li>Describe what algorithms are</li> <li>Understand the a program written in a programming language needs to be translated to be executed by a machine.</li> <li>Write simple python programs to display messages.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Create a program with simple selection (if/else)</li> <li>Know the different data types</li> <li>Describe how iteration controls the flow of program execution.</li> </ul>	Secure The student can: <ul style="list-style-type: none"> <li>Create programs that include multi-branch selection (if/elif/else)</li> <li>Use iteration to control the flow of program execution</li> <li>Use variables as counters in iterative programs.</li> </ul>
	Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps
	Foundation	Significant gaps	Significant gaps

To be assessed as secure, students must achieve competence in all statements.	<ul style="list-style-type: none"> <li>Write simple python programs that assign values to variables and receive keyboard input.</li> </ul>	<ul style="list-style-type: none"> <li>Locate and correct simple syntax errors.</li> </ul>	<ul style="list-style-type: none"> <li>Apply casting to code to execute programs correctly</li> <li>Combine iteration and selection to control the flow of program execution.</li> <li>Confidently debug programs.</li> </ul>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps
Key Stage 3 Subject Assessment Grid			
Subject: Computer Science Year: 8 Unit: Cryptography			
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Understand the term 'cryptography'</li> <li>Identify 2 early methods of cryptography</li> <li>Explain the reasons of encryption</li> </ul>	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Be able to explain the reasons of encryption including advantages and disadvantages</li> <li>Research and investigate real life scenarios where cryptography was used</li> <li>Explain the term 'cryptography'</li> <li>To be able to extract information from a barcode</li> <li>Explain how personal information is securely transmitted over the internet by using encryption methods</li> </ul>	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Confidently explain why companies encrypt their network with advantages and disadvantages</li> <li>Understand the purpose and use of check digit</li> <li>Understand how public and private keys are used as part of the encryption and decryption process</li> <li>Explain how DRM makes use of encryption and authentication techniques</li> </ul>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps
Key Stage 3 Subject Assessment Grid			
Subject: Computer Science Year: 8 Unit: Mobile App Development			
KS4 target direction	4	6	8
Advanced	Achieving aspects of pathway 6 competence statements	Achieving aspects of pathway 8 competence statements	Achieving outcomes beyond secure competence statements for pathway 8
To be assessed as secure, students must achieve competence in all statements.	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Add at least one extra measurable success criterion to the list.</li> <li>Create a basic outline of what is to be included on each screen. Little to no annotation.</li> <li>Attempt to decompose the problem into more manageable steps.</li> <li>Create a partially functional app and only meets some of the success criteria</li> <li>Successfully use an event handler to perform an action triggers by the user.</li> </ul>	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Add success criteria to the list, most of which are relevant and measurable. Some criteria are subjective.</li> <li>Create appropriate screen designs provided, both of which act as a guide to style and layout.</li> <li>Fully decompose the problem into sensible steps.</li> <li>App is mostly functional and meets most of the success criteria.</li> <li>Successfully implement: event handling, variables and selection.</li> </ul>	<p>Secure</p> <p>The student can:</p> <ul style="list-style-type: none"> <li>Has added success criteria to the list, all of which are relevant and measurable.</li> <li>Create screen designs with full annotations to provide clear guidance on style, positions, ids and any linked events.</li> <li>Fully decompose the problem into sensible steps.</li> <li>App is fully functional and meets all of the success criteria.</li> <li>Successfully implement and extended the project to include: event handling, variables, selection and iteration.</li> </ul>
Developing	Mostly secure – one or more gaps	Mostly secure – one or more gaps	Mostly secure – one or more gaps
Foundation	Significant gaps	Significant gaps	Significant gaps