

Level 3 Cambridge Technical in IT

Essential Bridging Work

In order to help you make the best possible start to your studies within the Trinity Sixth Form, we have put together some bridging work that you will need to complete before you enrol. Doing your best in this work will ensure you make the most of the early weeks, which we know are really important in getting the best you can from your studies.

Topic / Context	<p style="color: #e91e63;">Understanding Computer Hardware & Software</p> <p>Computers are everywhere. They are in our pockets, driving our cars, powering our TV and the programs we watch; computers are on our wrists tracking our steps and sending us the latest notification from Snapchat. Hardware (the physical devices) and Software (the programmes and apps) have evolved fast over the last 10 years and the rate of change is forever increasing.</p> <p style="color: #e91e63;">Website Design & App Development</p> <p>The way in which companies, TV shows, schools, hospitals, social media etc. interact with their consumers are through App's and through websites. Both units are delivered on the Single Award IT.</p>
Task	<p style="color: #e91e63;">Understanding Computer Hardware & Software</p> <p>Task1: Imagine the year is 1999 (21 years ago) – produce a review or article for an IT magazine that describes the latest trend in computing devices (including desktops / mobile phones etc.) This should include discussion on the latest hardware and advances in technology.</p> <p>Task2: Imagine the year is 2040 (20 years in the future) – produce a review / article for an IT magazine on the latest technology (what do you imagine this will be like in 20 years' time? What will be the cutting edge hardware?)</p> <p style="color: #e91e63;">Web-site Design</p> <p>During the course, you will have the opportunity to develop a website for a real client – St Thomas More Catholic Academy; this is in association with the Careers Academy program at St Thomas More Catholic Academy and will showcase the opportunities to work with professionals.</p> <p>Using whichever Graphical Software of your choice – create a suitable logo to be displayed on the website. Ensure use of St Thomas More Catholic Academy colour scheme, which can be found on the school website.</p>
Resources	<p style="color: #e91e63;">Online Research</p> <p>Other than the resource links in the task - please see:</p> <p>https://www.mathsisfun.com/binary-digits.html</p> <p>https://www.mathsisfun.com/binary-number-system.html</p> <p>https://www.youtube.com/watch?v=bsNWzQ3S8pE</p> <p>https://www.youtube.com/watch?v=Y4Q9PnjKhac</p>

Presentation	Produce a handwritten explanation and guide on how to convert from Denary to Binary and vice versa, how to convert from Denary to Hex and vice versa. Use examples throughout.
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Topic / Context	<p>Application inventor</p> <p>The world is increasingly reliant on applications that help individuals, businesses and organisations achieve specific activities or purposes. MIT App Inventor is an intuitive, visual programming environment that allows everyone to build fully functional apps for smartphones and tablets. Using MIT App Inventor you can have a simple first app up and running in less than 30 minutes. And what's more, the blocks-based tool facilitates the creation of complex, high-impact apps in significantly less time than traditional programming environments.</p>
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Task	<p>MIT App Inventor 2</p> <p>Activity 1: Show that you are able to work independently by following online instructions to build and develop an app using MIT App Inventor 2. You will first need to setup App Inventor by reading and following through the instructions found at the following website: http://appinventor.mit.edu/explore/ai2/setup.html</p> <p>Note: Internet Explorer is not supported. We recommend Chrome or Firefox.</p> <p>Activity 2: Next, take a tour of the designer and block editor by reading through the following website: http://appinventor.mit.edu/explore/designer-blocks.html</p> <p>Activity 3: Follow the 'Using Multiple Screens in App Inventor' video on the following YouTube channel: https://www.youtube.com/watch?v=gXXRpjzrBsA&feature=youtu.be</p> <p>Activity 4: Follow the 'How to make a Six Pack Menu in App Inventor' video on the following YouTube channel: https://www.youtube.com/watch?v=jlB-377wzpM&feature=youtu.be</p>
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Resources	<p>Online Research</p> <p>http://appinventor.mit.edu/explore/ai2/setup.html http://appinventor.mit.edu/explore/designer-blocks.html https://www.youtube.com/watch?v=gXXRpjzrBsA&feature=youtu.be https://www.youtube.com/watch?v=jlB-377wzpM&feature=youtu.be</p>
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Presentation	Take screen grabs from the designer and code blocks to show you have developed the applications. Add your screen grabs to a document, ensuring your name is in either the header or footer of your document and annotate the screen grabs to identify and explain the features and functions you have used.
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<p>Topic / Context</p>	<p>Social Media and Digital Marketing The use of social media has increased massively over recent years and is now a worldwide phenomenon. Users of social media are able to share ideas and files, compare opinions and pass comment on the activities of their friends and contacts. Digital marketing is part of the overall process of marketing and is the use of digital media to increase awareness of a product or service. As social media offers such a wealth of data and the ability to contact potential customers in their own homes across a range of media channels, it is only natural that the digital marketing seeks to use social media as part of the marketing mix for goods and services.</p>
<p>Task</p>	<p>Digital Marketing Life Cycle Activity 1: Carry out research and using presentation software such as Microsoft PowerPoint create a presentation that explains the purpose of each of the five stages of the digital marketing life cycle with detailed speaker notes. The 5 sections to cover are 1. Setup 2. Traction 3. Positioning 4. Expansion 5. Viral growth</p> <p>Project Development Activity 2: Carry out research and using presentation software such as Microsoft PowerPoint create a presentation that explains the different process of the application development model with detailed speaker notes, although these phases vary depending on the model all will include, in some form the following stages 1. Requirements analysis 2. Design 3. Implementation/coding 4. Testing 5. Deployment 6. Maintenance</p> <p>For Both Activities Above Do Not Just Copy and Paste Text</p>
<p>Resources</p>	<p>Online Research https://www.socialmediatoday.com/content/5-stages-integrated-digital-marketing-life-cycle http://www.venture1st.com/marketing-momentum-the-stages-of-a-digital-marketing-campaign/ http://istqbexamcertification.com/what-are-the-software-development-life-cycle-sdlc-phases/ https://manifera.com/blog/6-basic-steps-of-software-development-process</p>