

Sixth Form ICT BTEC Level 3 Bridging Work

Welcome to BTEC Level 3 at A-Level. You can either complete the **BTEC Level 3 Subsidiary Diploma** in IT (*equivalent to one A-Level*) or **BTEC Level 3 Extended Diploma** in IT (*equivalent to three A-Levels*).

BTEC Level 3 Subsidiary Diploma and Certificate in IT Course

The BTEC Level 3 Subsidiary Diploma in IT consists of two core unit plus four optional units that accredit to a total of 60 credits for A-level and 30 credits for AS. The BTEC Level 3 Subsidiary Diploma and certificate covers the key knowledge and practical skills required in the appropriate vocational sector. All the units are assessed by completing the coursework. You will be completing the following units on this course over two years. If you are on the certificate course, you will only cover three units.

Units of study

Unit 1 - Communication and Employability Skills for IT

Unit 2 - Computer Systems

Unit 30 - Digital Graphics

Unit 7 - Organisational Systems Security

Unit 3 - Information Systems

Unit 22 – Developing Computer Games

BTEC Level 3 Extended Diploma in IT Course

The BTEC Level 3 Extended Diploma in IT consists of three core units plus fifteen optional units that accredit to a total of 180 credits. The BTEC Level 3 Extended Diploma broadens and expands the specialist work-related focus from the BTEC Level 3 Subsidiary Diploma. This qualification prepares you for employment, apprenticeship or further education in the area of IT/Computing. All the units are assessed by completing the coursework. You will be completing the following units on this course over two years.

Units of study

Unit 1 - Communication and Employability Skills for IT

Unit 2 - Computer Systems

Unit 3 - Information Systems

Unit 7 - Organisational Systems Security

Unit 8 – E-Commerce

Unit 9 - Computer Networks

Unit 11 - Systems Analysis and Design

Unit 14 - Event Driven Programming
Unit 15 - Object Oriented Programming
Unit 16 - Procedural Programming
Unit 18 - Database Design
Unit 22 - Developing computer games
Unit 26 - Mathematics for IT Practitioners
Unit 28 - Website Production
Unit 30 - Digital Graphics
Unit 31 - Computer Animation
Unit 42 - Spreadsheet modelling
Unit 43 - Multimedia Design

This bridging unit is designed to help you do just that. The BTEC bridging unit is designed to help you research some key areas of study and to test your own skills in A-level style assessment. This unit is an opportunity for you to find out what you can do and we hope you enjoy it. You should be ready to hand in your project when you start your course in September. **You must attempt all tasks below.**

Task One

Carry out research on the hardware that makes up a computer system and explain why they are important in making a computer work.

In a PowerPoint presentation, you need to describe all the hardware components of a computer system using diagrams or photographs with the explanation of its function. Make sure to research and write about all the components listed below. You can carry your research out on the Internet but the work should be in your own words with nothing copied from the Internet. **You should aim to describe what each component does within the computer system and explain why the component is important to the running of the system.**

- Processor
- Motherboard
- ROM
- RAM
- Power Supply
- Fan and heat sink
- Input Devices – Keyboards, scanners, microphone, mouse.
- Output Devices – Monitors, speakers, printers.
- Backing Storage – Hard disk drives, Solid State Drives, USB/Flash Devices
- Cables – SATA, IDE

Task Two

Task 2: You should carry out research on one person that has been successful in the field of IT/Computing. You should fill out the worksheet below

Possible examples of people you can research about; **Steve Jobs, Mark Zuckerberg, Bill Gates, Alan Turing, Jean Bartok, Ada Lovelace or Corrine Yu.**

NAME OF PERSON BEING RESEARCHED	
I CHOSE THIS PERSON BECAUSE	
<p>WRITE ABOUT WHAT YOU FIND INTERESTING ABOUT THIS PERSON</p> <p>Areas you might comment on are:</p> <p>What are their notable contributions to the subject? Try to work out why they are successful – what seemed to drive them? What skills do they have that stand out? Has their life been one of constant development or has it been uneven or barriers they needed to overcome? What questions do you have about them</p>	

Task Three

Below are a few activities you can do. Please choose one from the list and write about it below. Please ensure the task you chose is related to IT/Computing.

Visit a place / read a book or article / watch a film / watch a YouTube video / engage with a specific web site / join an association / go to free lecture.

Possible books you could read:

Digital Fortress by Dan Brown

The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World by Pedro Domingos

Pandora's Brain by Calum Chace

Which of the above tasks did you do?	
What are your thoughts? How did the activity inspire you? Has it made you think about something?	