

Sixth Form ICT BTEC Level 3 Bridging Work

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

BTEC Level 3 Extended Certificate in IT Course

The BTEC Level 3 Extended Certificate in IT consists of three core unit plus one optional unit which will make up a qualification equivalent to one A-level after completion of the second year.

The BTEC Level 3 Extended Certificate covers the key knowledge and practical skills required in the appropriate vocational sector. In the first year, you will focus on two units which are externally assessed. Unit 1 is an exam and Unit 2 is a controlled task where you will create a relational database under exam conditions, both these units are mandatory. In the second year you will focus on the coursework units where for Unit 3, you will advertise a business on social media and for Unit 6 you will create a website.

Units of study

Unit 1: Information Technology Systems (*External Written exam*)

Unit 2: Creating Systems to Manage Information (*Externally Examined Practical*)

Unit 3: Using Social Media in Business (*Mandatory Coursework*)

Unit 6: Website Development (*Optional Unit*)

BTEC Level 3 Extended Diploma in IT Course

The BTEC Level 3 Extended Diploma in IT consists of seven mandatory core units plus six optional units. The BTEC Level 3 Extended Diploma broadens and expands the specialist work-related focus from the BTEC Level 3 Extended Certificate. This qualification prepares you for employment, apprenticeship or further education in the area of IT/Computing. Units are assessed by completing the coursework, practical examinations and written examination. You will be completing the following units on the course over two years.

Units of study

Unit 1: Information Technology Systems (*External Written exam*)

Unit 2: Creating Systems to Manage Information (*Externally Examined Practical*)

Unit 3: Using Social Media in Business (*Mandatory Coursework*)

Unit 4: Programming (*Mandatory Coursework*)

Unit 5: Data Modelling (*Optional Unit*)

Unit 6: Website Development (*Optional Unit*)

Unit 8: Gaming (*Optional Unit*)

Unit 9: IT Project Management (*Mandatory Coursework*)

Unit 11: Cyber Security and Incident Management (*Externally Examined Practical*)

Unit 13: Software Testing (*Optional Unit*)

Unit 14: IT Service Delivery (*Externally Examined Practical*)

Unit 19: The Internet of Things (*Optional Unit*)

Unit 20: Enterprise in IT (*Optional Unit*)

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 topics below. The research must be in your own words and clearly demonstrate your own understanding.

In a PowerPoint or Google Slides presentation, you need to research and create a slide on all of the topics below; You should make sure that each topic is presented on to a single slide but more importantly, the work should be your own. Any work copied or reworded from the Internet is against the rules on a BTEC course so you need to get into the habit of ensuring the work is always **100% originally yours**.

1) Explain the Different types of Operating Systems **with examples;**

- real time operating system
- single-user single task
- single-user multi-tasking
- multi-user

2) Explain the different types of networks below;

- PAN
- LAN
- WAN
- VPN

3) Research the **Computer Misuse Act 1990**

- Why was this law introduced?
- What does the law state?
- What can a company do to prepare its employee's for this law?

4) Research Data protection legislation (GDPR)

- Why was this law introduced?
- What are the six principles of this law?
- What are the consequences of breaking this law?

Expectation: Around 14 to 18 slides.

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	
WRITE ABOUT WHAT YOU FIND INTERESTING ABOUT THIS PERSON Areas you might comment on are: 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	

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?	
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What are your thoughts? How did the activity inspire you? Has it made you think about something?