

BTEC AAQ Extended Certificate in Information Technology – Preparatory Work 2026

The main purpose of this qualification is to study the fundamental knowledge of Information Technology covering the role and implications of using IT systems and cyber-security threats and how to manage attacks. Over the 2 years, you will also develop important skills for creating websites to meet a specific purpose and to manage data through the development of a relational database solution.

The aim is to prepare you for progression to higher levels of study (not necessarily in IT), taking on an apprenticeship, or employment. Throughout the course you will be expected to use skills that are highly sought after and valued by employers, such as organisation, planning, problem-solving and independent study.

There are four units studied over two years, and your assessment will be through external examination and internal assessment.

Information Technology Systems (examined unit year 1), Website Development (internally assessed, year 1), Cyber Security and Incident Management (examined unit year 2), Relational Database Development (internally assessed, year 2).

- 66% is assessed through external assessment involving two written examinations.
- 34% of the work is assessed through internal assessment of (project-based) exam board set briefs.
- Final grades of Pass, Merit, Distinction or Distinction* are awarded.

To start you off and give you an insight into the course content you are required to complete the following tasks and submit your document in the first lesson. We will submit the document/photo of the document electronically in the lesson. The work will be assessed and returned to you. It will form part of your initial course progress test.

Preparatory Tasks

The use of AI in assessments is not permitted by exam boards and there are many factors that are being discussed both by academic institutions (schools, universities), students, teachers, employers and employees. There is a growing unrest around the use of AI replacing many jobs/people and varying opinions about the use of AI in general.

Research the use of AI in at least two areas of life (e.g. medicine and entertainment). **Identify** positives and negatives of AI. Based on your findings, make a judgement on 1. the ethics of AI, 2. whether you believe that students should be allowed to use AI, 3. clearly state the reasons.

Task 1a: Write a short report (roughly one side of an A4 page in standard size text) on the findings from your research (as stated above). Look up the correct way to reference your research and make sure that you are **using Harvard referencing in the work you hand in.**

Task 1b: Why do you think referencing is important? (list all you can think of) *Remember to reference your sources for all tasks.*

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Task 2

Explain in your own words what these command words mean:

Describe

Explain

Justify

Evaluate

Task 3

Research these terms for Relational Databases:

Entity

Attribute

ERD

Database Relationship

Primary Key

Foreign Key

Composite Key

Task 4

List and explain the impact of 3 Cyber Security Breaches that have happened in the UK in the last 5 years.

What advice would you give to an organization on preventative measures?

Task 5

Research website design principles. Write a short paragraph on the following aspects:

Layout

Accessibility

Legal and Ethical issues

Create a simple webpage using HTML code to demonstrate any HTML code you understand and can use.

Possible Sources of information:

BBC Bitesize

http://www.bbc.co.uk/bitesize/ks3/english/writing/inform_explain_describe/revision/2/

<http://www.bbc.co.uk/guides/z8yk87h>

Tech Terms <https://techterms.com/definition/database>

W3C

<https://www.w3.org/>

Canva

<https://www.canva.com/learn/20-web-design-principles-follow/>

Figma

<https://www.figma.com/resource-library/web-design/>