

Please note this is a new qualification we are offering from September 2026, but due to the government's constant changes we will not be able to offer to new cohorts in September 2028 and will need to update this information again with V-Levels!

BTEC National Level 3 AAQ in Computing (New course from September 2026)

Subject Leader: Callum Palmer

Curriculum Intent:

Our curriculum is designed to reflect the rapidly evolving nature of the computing industry. Students develop computational thinking, analytical reasoning and problem-solving skills while applying their knowledge to realistic vocational contexts. The qualification has been developed in consultation with higher education and industry representatives, ensuring that the knowledge and skills learners acquire are relevant to progression into modern computing-related disciplines.

We aim to provide a rigorous, future-focused Computing curriculum that develops students' understanding of computer science principles, software development, cyber security and human-computer interaction. Through the Pearson Level 3 AAQ BTEC National in Computing, learners gain a strong academic foundation alongside practical and technical skills that prepare them for higher education, degree apprenticeships and careers within the digital sector

Beyond technical knowledge, our curriculum is intended to develop students as reflective, independent learners who can communicate effectively, manage projects, work collaboratively and evaluate the impact of technology on individuals, organisations and society. These transferable skills are essential for success in higher education and employment.

The department promotes a culture of innovation, resilience and curiosity, encouraging students to explore emerging technologies while understanding the ethical, legal and professional responsibilities associated with computing. Learners are challenged to think critically, solve complex problems and develop solutions that are secure, accessible and user centred.

By the end of the programme, students will possess the knowledge, technical competence and academic confidence required to progress to computing-related degree courses, higher apprenticeships and careers in software development, cyber security, data analysis, network administration, user experience design and the wider digital technology sector.

We aim to inspire the next generation of digital innovators by developing confident, analytical and adaptable learners who can use computing knowledge and technology to solve real-world problems and shape the future of the digital world.

Core Knowledge

Topics:

Unit 1 - Programming Fundamentals
Unit 2 - Computer Network Security and Encryption
Unit 3 - Human-Computer Interaction
Unit 4 - Practical Programming

Students will study Units 1 and 3 concurrently in Year 12 and Units 2 and 4 concurrently in Year 13.

Procedural Knowledge

Students will:

- Apply computational thinking to unfamiliar problems.
- Collect, analyse and interpret technical information
- Use industry-standard development approaches
- Produce technical documentation and reports
- Manage projects and meet development milestones
- Evaluate computing solutions against user requirements
- Apply professional, ethical and legal standards within computing contexts

Students completing the **BTEC Level 3 National AAQ in Computing** develop procedural knowledge relating to the analysis of computational problems, algorithm design, software development, cyber security implementation, user-centred design, testing, debugging, evaluation and project management, enabling them to apply computing principles in realistic and professional contexts.

Homework:

Out of class learning is essential to remembering factual information, practising application of key concepts, practising examination technique and completion of internally assessed work. The best approach to this is little and often.

Students are expected to match the 5 hours of contact time in the classroom with 5 hours of out of class independent study. Each week, at least one of these hours will be directed by the teacher, submitted by a specific deadline and the student will be provided feedback. At different points in the year, more of these hours may be explicitly directed. When not explicitly directed, students will be supported with a choice of independent study tasks, and they are expected to document these on the blue coloured sheet in their file.

Home learning tasks may include some of the following: creating a revision resource, completing past paper questions, watching a documentary, reading an article, super

curricular task, completing a section of their assignment, practising and refining skills and techniques from the lessons.

Assessment:

The BTEC National AAO Extended Certificate in Computing externally assessed examinations can be taken at two possible windows, January and June in each of the two years of the course.

Students are permitted to sit each external examination (Unit 1 and Unit 2) a maximum of 3 times, with the best result contributing to their overall qualification result. To ensure sufficient opportunities are available should they be required, we have designed our delivery so that the students sit Unit 1 in June in the first year of the course, allowing for resit windows in the January and June of Year 13. Unit 2 will be sat in the January of the second year of the course, allowing for resit if required in the June of that year.

Students are required to achieve a minimum of Near Pass on all externally assessed examinations and a minimum of a Pass in the internally assessed units to be able to gain the qualification.

Internally assessed units are completed throughout the 2 years of the course, Unit 3 in Year 12 and Unit 4 in Year 13. The student's teacher will assess the completed work which must be submitted by the set deadline. It may be deemed that the student can have a resubmission, which permits 15 working days for the student to add to their work and resubmit. Work from the internally assessed units are sampled by the exam board to ensure that nationally, there is fairness and consistency in the marking.

The overall qualification result is determined by their score in each of the four units. The Uniformed Mark Score (UMS) that they achieve in each unit is combined to provide a total UMS and then converted to a grade. Below are 3 tables to show the UMS for each grade for internally and externally assessed units and when calculating the overall result.

Points available for internal units

The table below shows the number of **points** available for internal units. For each internal unit, points are allocated depending on the grade awarded.

Grade	Unit size (60 GLH)
U	0
Pass	6
Merit	10
Distinction	16

Points available for external units

Raw marks from the external units will be awarded **points** based on performance in the assessment. The table below shows the **minimum number of points** available for each grade in the external units.

Grade	Unit size (120 GLH)
U	0
Near Pass	8
Pass	12
Merit	20
Distinction	32

Calculating the final grade based on UMS for all 4 units:

Extended Certificate (360 GLH)

Grade	Points threshold
U	0
Pass	36
Merit	52
Distinction	74
Distinction *	90

Links to Personal Development:

Studying the **BTEC Level 3 National AAQ Extended Certificate in Computing** supports personal development by helping learners become confident, independent and adaptable problem-solvers. Through programming, systems analysis and computational thinking, students develop logical reasoning, creativity and resilience when tackling complex challenges. The qualification also strengthens communication, teamwork and project-management skills through practical tasks and collaborative activities. By reflecting on their work and applying technical knowledge to real-world scenarios, learners build the professional attitudes, digital skills and self-discipline needed for success in higher education, apprenticeships and careers within the computing and technology industries.

How is my knowledge further developed in Post-18 provision?

After completing the BTEC Level 3 National AAQ Extended Certificate in Computing, learners can progress to a range of opportunities in higher education, apprenticeships and employment. Many students choose to study degree courses in areas such as Computer Science, Software Engineering, Cyber Security, Artificial Intelligence, Data

Science or Digital Technologies. Others may pursue higher or degree apprenticeships in fields such as software development, cyber security, network engineering, IT support or data analysis, allowing them to earn while they learn. The qualification also provides a strong foundation for entry-level roles in the technology sector, helping learners develop the technical knowledge, problem-solving skills and professional behaviours valued by employers in an increasingly digital world.