PLUME ACADEMY - LEARNING OVERVIEW

Year	13
Course	Computer Science
Specification Number/Exam Board	AQA
Examination Papers and Weighting	Paper 1: 40% Paper 2: 40% NEA: 20%

Prior Learning

The majority of students will have studied GCSE Computer Science and achieved a grade 5; for those who have not, there is an expectation that students achieve a grade 7 in Mathematics. GCSE Computer Science provides a solid foundation to the KS5 course, covering topics in both Computer Systems and Computational Thinking, Algorithms and Programming.

Curriculum Intent – What are the curriculum aims?

Our KS5 Computer Science curriculum intends to develop student understanding across a diverse range of topics. We expand their programming skills beyond procedural programs to include object-oriented techniques. These new programming skills are used together with the introduction of abstract data types and a variety of algorithms, which includes pathfinding. These skills are all useful for completing the non-exam assessment, which takes the form of a programming project or investigation, which is defined by the student. Furthermore, students will develop their understanding of how data is stored on a computer system, database organisation, computational architecture, networks as well as consider the consequences for society of introducing new technologies.

Curriculum Implementation – What will my child will be learning?

Term 1	Half Term 1	Fundamentals of algorithms Computer organisations and architecture
	Half Term 2	Theory of computation Fundamentals of communication and networking
Term 2	Half Term 3	Theory of computation Fundamentals of communication and networking - continued
	Half Term 4	Revision
Term 3	Half Term 5	Revision
	Half Term 6	Summer exams

Curriculum Impact – How will my child be assessed and receive feedback?

In addition to assessing of students' work in lesson we also assess them at the end of each topic. Paper 1 assessments require students to have studied a pre-released 'skeleton' program, which students edit and extend during the assessment using a computer. Paper 2 assessments take a more traditional approach and are completed on paper.

Super-Curricular Opportunities – Supporting and Extending Learning

Useful study resources	If a student is really passionate about this subject they can...
https://www.pgonline.co.uk/resources/computer-science/a-level-aqa/aqa-as-and-a-level-textbook/ Craig and Dave online videos for AQA Computer Science https://isaaccomputerscience.org/pages/specification_page_aqa	Complete independent courses on CodeAcademy Watch TEDEd videos linked to Computer Science. Visit the National Museum of Computing. Consider options for Further Education in Computer Science