ACLE ACADEMY KS4 LEARNING JOURNEY:
AQA GCSE Computer Science (x5 lessons a fortnight)

SUBJECT:	Autumn Half Term 1	Autumn Half Term 2	Spring Half Term 1	Spring Half Term 2	Summer Half Term 1	Summer Half Term 2
Year 10 - programme of study	**Unit name:** Computer Systems	**Unit name:** Networks	**Unit name: Ethical legal and environmental impacts**	**Unit name:** Cybersecurity	**Unit name: Fundamentals of data representation**	**Unit name: Fundamentals of data representation**
Progression of knowledge and skills	Hardware and software, logic gates, systems architecture, classification of programming languages	Different types of network and protocols, topologies and security	Current legal, ethical and environmental impacts and data privacy	Know the different types of cybersecurity threats and prevention,	Number bases, conversion, binary arithmetic, character encoding, representing images, representing sound, data compression	Number bases, conversion, binary arithmetic, character encoding, representing images, representing sound, data compression
Year 11 - programme of study	**Unit name: Relational Databases and SQL**	**Unit name:** Algorithms	**Unit name:** Programming	**Unit name:** Programming	**Unit name:** Programming / revision	n/a
Progression of Knowledge and Skills	Explain the concept of a database, know SQL	Representing algorithms, Efficiency of algorithms, Searching algorithms, sorting algorithms	Data types, programming concepts, arithmetic operations, relational operations	Boolean operations, data structures, Input/ Output, String handling, Random number generation,	Structured programming and subroutines, robust and secure programming / revision of course	n/a