ASHTON COMMUNITY SCIENCE COLLEGE: COMPUTING CURRICULUM

Year 8						
	Half term 1	**Half term 2**	**Half term 3**	**Half term 4**	**Half term 5**	**Half term 6**
Knowledge	Topic: ▪ Computational thinking	Topic: ▪ Networks ▪ System security	Topic: ▪ System security ▪ System Software	Topic: ▪ Python introduction	Topic: ▪ Multimedia Products	Topic: ▪ Logic gates & truth tables ▪ Artificial intelligence
Skills/ application of knowledge	▪ How do I think like a computer? ▪ What are the fundamentals of computational thinking? ▪ Abstraction ▪ Decomposition ▪ How to create and interpret algorithms ▪ How to read and interpret program code	▪ The difference between LAN's and WAN's ▪ Knowledge of different types of network hardware and their use ▪ Use of different types of networks ▪ Understanding of network topologies where and why they are used ▪ The purpose of network protocols ▪ What are the different threats posed to networks?	▪ What are the different threats posed to networks? ▪ How can I identify and prevent vulnerabilities in a network ▪ What is software? ▪ What is an operating system? ▪ What is utility software? ▪	▪ What is python ▪ How do I make programs in python? ▪ What are mathematical and Boolean operators ▪ What are data types and why do computers need them?	▪ What are multimedia products? ▪ Be able to plan a multimedia product ▪ Be able to create a multimedia product ▪ Be able to review a multimedia product	▪ Why do computers only understand 0 or1? ▪ Know a range of logic gates and how they work ▪ To be able to know the purpose of truth tables and how to complete them ▪ What is AI – what are the positives and negatives. ▪ Ethical issues in relation to the use of AI
Links to prior learning	• Year 7- under the hood of a computer, Micro:bits, small basic	• Year 7- IT skills, E-safety, under the hood of a computer, how the web works	• Year 7- E-safety, how the web works	• Year 7- Micro:bits, small basic	• Year 7- IT skills, E-safety, under the hood of a computer, how the web works	• Year 7- under the hood of a computer, E-safety, how the web works
Assessment	• Mid unit assessment • End of topic test	• Mid unit assessment • End of topic test	• Mid unit assessment • End of topic test	• Mid unit assessment • End of topic test • Programming skills	• Mid unit assessment • End of topic test • Creation of a multimedia product to meet a brief	• Mid unit assessment • End of topic test