COMPUTER SCIENCE | CURRICULUM SUMMARY | YEAR 7

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPICS	**SoL – e-Safety, respectful use of online resources** Understanding of how to interact safely with online communities that are age appropriate.	**SoL – First Steps in Small Basic** Text-based programming – skills include logic, algorithmic thinking, and decomposition.	**SoL – Sound manipulation in Audacity – Advertisement** Understand how data is stored and represented in digital form.	**SoL – AI and Machine Learning** Understand the possibilities and ethical considerations of AI and Machine Learning.	**SoL – Intro to Kodo** Block-based programming – skills include logic, algorithmic thinking, and decomposition.	**SoL – Microbits (Using technology to solve problems – linked to Health)** Links with healthy living, using tech to assist life, and developing routines for an active life.
HOME LEARNING	iDEA Badges linked to content	iDEA Badges linked to content	iDEA Badges linked to content	iDEA Badges linked to content	iDEA Badges linked to content	iDEA Badges linked to content
ASSESSMENT	MCQ assessment	Programming Portfolio and self-assessment	Project portfolio and self-assessment including evidence or planning	Project portfolio and self-assessment including evidence and planning	Kodo creation portfolio that includes self-assessment	Prototype Presentation

COMPUTER SCIENCE | CURRICULUM SUMMARY | YEAR 8

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPICS	**SoL – Unit 1 PG Cyber Crime and Security** Knowledge of online scams, and threats. Appreciation of ethical and safe conduct when interacting with online communities.	**SoL – Modelling with Small Basic** Text-based programming – skills include logic, algorithmic thinking, and decomposition.	**SoL – PG Understanding Computers** Hardware, Binary, and Storage. There will be an understanding of how each	**SoL – PG Intro to Python** Variables, Selection, Searching, and loops.	**SoL – AI and Machine Learning** Understand the possibilities and ethical considerations of AI and Machine Learning.	**SoL – AppShed App Development** Project design and repurposing digital artefacts for a stated purpose, audience, and usability considered.
HOME LEARNING	**iDEA Badges link to content**	**iDEA Badges link to content**	**iDEA Badges link to content**	**iDEA Badges link to content**	**iDEA Badges link to content**	**iDEA Badges link to content**
ASSESSMENT	MCQ assessment	Programming Portfolio and self-assessment	MCQ assessment	Programming portfolio / Educake Questions	Project portfolio and self-assessment including evidence and planning	App publication and self-assessment

COMPUTER SCIENCE | CURRICULUM SUMMARY | YEAR 9

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPICS	**System Architecture** - **F-D-E Cycle** - **CPU Components** - **Architecture** - **Clock Speed** - **Cache Size** - **Cores**	**Memory and Storage** - **RAM and ROM** - **Secondary Storage** - **Number bases** - **Character sets** - **Images** - **Sound**	**Computer Networks** - **LAN / WAN** - **Wireless** - **Wired** - **Routers** - **Switches** - **Hosting** - **Cloud** - **Transmission media** - **Topologies** - **Protocols**	**Network Security** - **Form of Attacks** - **Vulnerabilities of systems and the prevention methods.** - **Encryption**	**System Security** - **Operating systems** - **Memory management** - **Peripheral management** - **Users** - **Files** - **Utility software**	**Ethical, Legal and Culture** - **Ethical issues** - **Environmental issues** - **Privacy issues** - **Legislation** - **Software licences**
HOME LEARNING	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**
ASSESSMENT	**End of topic assessment via Educake or Exam questions**	**End of topic assessment via Educake or Exam questions**	**End of topic assessment via Educake or Exam questions**	**End of topic assessment via Educake or Exam questions**	**End of topic assessment via Educake or Exam questions**	**End of topic assessment via Educake or Exam questions**

COMPUTER SCIENCE | CURRICULUM SUMMARY | YEAR 10

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPICS	**Algorithm** - **Abstraction** - **Decomposition** - **Inputs and processes** - **Flowcharts** - **Trace Tables** - **Sorting** - **Searching**	**Programming Fundamentals** - **Variables** - **Sequence** - **Selection** - **Iteration** - **Arithmetic operators** - **Boolean** - **Data types**	**Robust Programs** - **Misuse** - **Authentication** - **Validation** - **Naming conventions** - **Commenting** - **Maintainability** - **Commenting** - **Indentation** - **Testing** - **Test Data**	**Boolean Logic** - **Logic diagrams** - **Boolean Operators** - **AND** - **NOT** - **OR** - **Truth Tables**	**Language and IDE** - **High level languages** - **Low level languages** - **Translators** - **Compilers** - **Interpreter** - **Error diagnostics**	**Python Programming Project** **Testing** **Investigation** **Making** **Evaluating**
HOME LEARNING	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**	**A weekly task linked to the lesson contact via Seneca and/or BBC Bitesize**
ASSESSMENT	**End of topic assessment via Educake or Exam questions.**	**End of topic assessment via Educake or Exam questions.**	**End of topic assessment via Educake or Exam questions.**	**End of topic assessment via Educake or Exam questions.**	**End of topic assessment via Educake or Exam questions.**	**End of topic assessment via Educake or Exam questions.**

COMPUTER SCIENCE | CURRICULUM SUMMARY | YEAR 11

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
TOPICS	**Python Programming Techniques**	**Paper 1 Retrieval Tasks**	**Paper 2 Retrieval Tasks**	**Exam technique and**	**Booster Sessions to support exam season**	
HOME LEARNING	**Weekly tasks are linked to retrieval exercises to Paper 1 topics**	**Weekly tasks are linked to retrieval exercises to Paper 1 topics**	**Weekly tasks are linked to retrieval exercises to Paper 2 topics**	**Weekly tasks are linked to retrieval exercises to Paper 1 and 2 topics**		
ASSESSMENT	**Students use their programming skills to answer Paper 2 algorithm questions**	**Students use their programming skills to answer Paper 2 algorithm questions**	**Students use their programming skills to answer Paper 1 algorithm questions**	**Students use their programming skills to answer Paper 1 algorithm questions**		