Year 9 Computer Science Curriculum Map

Overview	The first unit shows students various techniques used by cybercriminals to steal data, disrupt systems, and infiltrate networks. They look at methods to protect themselves and networks against these attacks. Students practice their touch typing skills at the beginning of lessons and are regularly challenged with a short test which helps them view their progress over the year. ▪ Taking part in the annual Bebras Computing Challenge develops the Year 9 students' computational thinking skills. ▪ The micro:bit unit introduces learners to how data can be represented and processed in sequences, such as lists and strings using Python. ▪ In the Digital Media unit, learners will focus on digital media such as images and sounds, and discover the binary digits that lie beneath these types of media. Photo Editing using Photopea follows on from the previous unit and has links back to the Fake News unit in Year 8. The iDEA programme completes KS3 Computer Science lessons and will help students develop digital, enterprise and employability skills, they take a series of online challenges.					
Year 9	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Cybersecurity	BEBRAS Computing Challenge Micro:bit using Micro Python	Digital Media	Photo Editing	Spheros Grand Designs	iDEA
Knowledge	Malware How to manage security software Password management Social Engineering techniques	BEBRAS: Computational thinking. Fundamental principles and concepts of computer science	How data of various types (including text, sounds and pictures) can be represented	How to use photo editing software (Photopea)	Basic programming constructs (sequence, selection and iteration). Know what Spheros are and can do	How the iDEA programme can help them.
Skills	Understand a range of ways to use technology safely, respectfully, responsibly, and securely	Practical experience of writing computer programs using Python in order to solve problems using a physical device.	Manipulate data digitally	Create, reuse, revise and repurpose digital artefacts	Develop coding skills using a physical device. Practice collaboration	Digital, enterprise and employability skills