

Computing at Key Stage 3 at Cottenham Village College. Our aim is for every child in Cottenham Village College to have a world-leading computing education. We believe our pupils should know the fundamental principles of computer science and be encouraged to engage with digital technologies which will equip them for life and at work. Our curriculum has been designed to be inclusive and allow pupils the opportunity to problem-solve, create and use collaborative skills. At Cottenham VC, we routinely use a range of strategies to formatively assess and give feedback about our learners' progress. In computing, these strategies include low-stake quizzes, questioning in class, homework, observations in lesson and the use of digital worksheets and workbooks on Teams.

Y8 Autumn Term	Topic	Topic
Key subject knowledge:	Data Representation Digital Images	Data Representation Digital Sound
Key disciplinary knowledge:	Learners will focus on making digital media such as images and sounds and discover how media is stored as binary code. The unit has a significant practical aspect; pupils will use design software (Photoshop/PhotoPea and Audacity in this case), to manipulate images and sounds.	
Summative Assessment Strategies	KS3 Assessment skills demonstration in lesson and on Teams. Multiple-choice knowledge quiz Homework	KS3 Assessment skills demonstration in lesson and on Teams. Multiple-choice knowledge quiz

Y8 Spring Term	Topic	Topic
Key subject knowledge:	Cyber security	Impacts of technology
Key disciplinary knowledge:	Learners will discover the techniques cybercriminals use to steal data, disrupt systems, and infiltrate networks. Pupils will start by considering the value their data holds and what organisations might use it for. They will then learn about social engineering and other common cybercrimes, and finally look at methods to protect against these attacks.	Through a range of real-world examples, learners will identify the specific type of impacts such as legal, environmental, and ethical issues.
Summative Assessment Strategies	KS3 Assessment with knowledge-based questions.	KS3 Assessment project in the form of an electronic workbook Mid-year assessment

Y8 Summer Term	Topic	Topic
Key subject knowledge:	Introduction to Python Programming	Drawing with Python
Key disciplinary knowledge:	Learners are introduced to text-based programming with Python. The lessons form a journey that starts with simple programs involving input and output, and gradually moves on through arithmetic operations, randomness, selection, and iteration.	
Summative Assessment Strategies	KS3 Assessment final project in the form of an electronic workbook.	KS3 Assessment project in the form of an electronic workbook; end of year assessment