

## Year 9 Subject Curriculum Overview per Term

Subject: Computing		Year Group: 9	AUTUMN TERM
Topic	Key Learning Points	Key Vocabulary	Assessments
Big Data	<ul style="list-style-type: none"> <li>Understand what Big Data is and why businesses use it.</li> <li>Learn about the infrastructure behind Big Data, including hardware and software.</li> <li>Explore methods of collecting, preparing, and processing data.</li> <li>Evaluate the usefulness of data and learn how to present it.</li> </ul>	Big Data Infrastructure Data Collection Data Processing Data Evaluation Presentation	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.
Online Security (Spy School)	<ul style="list-style-type: none"> <li>Identify the types of data shared online and the associated risks.</li> <li>Learn about Open Source Intelligence (OSINT) and its applications.</li> <li>Explore methods of reporting suspicious online activity.</li> </ul>	Digital Footprint OSINT DOXing Metadata Encryption Decryption	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.

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Subject: Computing		Year Group: 9	SPRING TERM
Topic	Key Learning Points	Key Vocabulary	Assessments
App Design 1 (Turtle)	<ul style="list-style-type: none"> <li>Understand Python basics and the Turtle module.</li> <li>Create basic and complex shapes using Turtle.</li> <li>Implement loops and conditional statements in Python.</li> </ul>	Python Turtle Loops Conditional Statements Shapes Coordinates	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.
App Design 2 (GuiZero)	<ul style="list-style-type: none"> <li>Learn about interfaces and GUIs.</li> <li>Create functional buttons, sliders, and drop-down menus in GuiZero.</li> <li>Develop a complex program combining Turtle and GuiZero.</li> </ul>	GUI Interface GuiZero Buttons Sliders Drop-down Menus	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.

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Subject: Computing		Year Group: 9	SUMMER TERM
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Digital media	<ul style="list-style-type: none"> <li>Use digital image creation software (Photopea).</li> <li>Identify and edit images, understanding the pros and cons of digital editing.</li> <li>Learn about referencing to ensure credibility.</li> </ul>	Digital Artefacts Photopea Image Editing Referencing Credibility	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.
Modern and Future Technology	<ul style="list-style-type: none"> <li>Understand the fundamental parts of a PC and when to upgrade.</li> <li>Learn about the Internet of Everything (IoE) and its applications.</li> <li>Explore Augmented Reality (AR) and Virtual Reality (VR).</li> <li>Discuss AI ethics and software licensing.</li> </ul>	CPU RAM GPU IoE AR VR AI Software Licensing Piracy	Multiple-choice test on MS Forms covering both units of the term, with questions from all units covered so far in the school year.

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### How parents can support learning in the subject this academic year

Encourage students to use computers for other reasons other than social media and gaming.

The more experience at a young age with technology can build a level of fluency with technology, enabling students to build skills that employers find useful.

### Recommended Reading

- Money matters - <https://www.young-enterprise.org.uk/your-money-matters-england/>
- Evolving technology - <https://www.discovertec.com/blog/evolution-of-technology>
- Real vs fake - <https://www.mindtools.com/pages/article/fake-news.htm>
- Beginner Python concepts: <https://www.w3schools.com/python/>
- Advanced Python concepts: <https://www.w3resource.com/python/python-tutorial.php>
- Step-by-step guide to Python: <https://www.programiz.com/python-programming>

### Points to note

The aim of this subject is to build skills that students will be able to implement into day-to-day life.