COMPUTING

Student year: **Lower 4 (Yr 8)**   Head of Department: **Mr J Friendship**

SUBJECT OVERVIEW

The focus of computing at the Maynard School is changing. The students in Year 8 will explore Computer Science in greater depth ensuring they are well equipped for GCSE and A Level subjects. A more mature attitude will be taken to e-safety with the students learning ethical hacking, concluding in the creation of a ethical hacking club and competitions at the GCHQ Cyberfirst Girls' Competition

- The students will learn about computing through three distinct learning pathways:
- The National Curriculum (with programming emphasis)
- Computer Training software they need to extend their learning in all subjects
- E-Safety (keeping students safe in the digital environment)

National Curriculum	Computer Training	E-Safety
Understand simple Boolean logic [for example, AND, OR and NOT] and some of its uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal] Understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems	Excel Skills including graphing and data handling Online research and plagiarism App Creation Sound Editing Video Editing Computer Infrastructure	Ethical hacking – demonstrating online vulnerabilities Understanding a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognising inappropriate content, contact and conduct and knowing how to report