

COMPUTING

Student year: **Upper 3 (Yr 7)**

Head of Department: **Mr J Friendship**

SUBJECT OVERVIEW

The students that arrive at Year 7 are digital natives who have already acquired numerous computing skills through their daily lives. However, these tend to be as a user rather than as a developer, and programming skills will feature across the curriculum. This will allow students to continue their qualifications in Computer Science.

- The students will learn about computing through three distinct learning pathways:
- The National Curriculum (with programming emphasis)
 - Computer Training on 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
Design, use and evaluate computational abstraction	Cloud-based saving of files and the use of iLearn 365	Cyberbullying – How to avoid it and how to get help
Understand several key algorithms that reflect computational thinking	Setting up and using school email on personal devices	Digital Footprints – from tracking to sexting
Use two or more programming languages, at least one of which is textual, to solve a variety of computational problems; Using Java Blocks and Python	Publisher – creating posters and presentation materials for cross-curriculum lessons	‘With friends like these’ – Self-esteem, understanding and resisting peer pressure and its impact on students online.
Understand simple Boolean logic 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	Presentation software – so students can efficiently present their ideas in lessons	
	Good Internet research – understanding bias in their own views and those of others	
	– Critical thinking skills	
	Photoshop Essentials	