

Subject Name:	Computer Science and Information Technology
Curriculum Intent Statement	
<p>Our intention is to equip pupils to develop their computational thinking skills and creativity to solve a variety of problems. To build an understanding of the workings of digital systems and the importance of online safety and its impact. Our teaching of both Computing and ICT will provide students with the future-proof skills and knowledge of using and creating digital technologies that will prepare and enable them to fully participate in a technology-driven world.</p>	
Autumn Term 1	
<p>Computer Architecture</p> <ul style="list-style-type: none"> • Functions of the main internal parts of basic computer architecture. • CPU and processor functions • FDE cycle • Computer software and hardware • Wired and wireless networks 	
Autumn Term 2	
<p>Data representation</p> <ul style="list-style-type: none"> • Binary in digital computer systems • Binary number conversions • Text and image representation • File sizes • Data types • Boolean searches • Data and information 	
Spring Term 1	
<p>Computational thinking and algorithms</p> <ul style="list-style-type: none"> • Design algorithms using flowcharts • Sequencing instructions • Iteration and selection in algorithms • Regular shapes using graphical programming • Debug, modify, improve programs 	

Spring Term 2

Programming

- Textual programming in Python
- Arithmetic operators in programs
- Declare and assign variables
- Sub-programs and functions
- Test, debug, modify, improve programs

Summer Term 1

Internet and web

- Efficient web searching
- Safe and responsible use of computers and online services
- Network hardware
- Network protocols

Summer Term 2

Graphics and multimedia

- Designing and create digital content for given audience
- Collect, organise, present digital information
- use criteria to evaluate the quality of solutions