Hallaton CE Primary School – The Big Picture - Computing

Our Over-arching Curriculum Intent	That every child grows and flourishes through enjoying learning and has access to a rich, rounded, connected, coherent and progressive curriculum

Aims of our Curriculum	To develop successful, engaged children, who enjoy learning and who are knowledgeable and skilled, make progress and achieve to their highest potential	To develop independent, confident, articulate individuals, who can lead safe, healthy and fulfilling lives in the communities in which they live now and in the future	To develop responsible, happy citizens of the world who have the capacity to make positive contributions to society

Core School Value	Learn, Grow, Flourish			
Learning Powers	Be Responsible	Be Respectful	Be Resilient	Be Reflective	Be Remarkable

The Intrinsic Core: Our Computing Intent.	To be able to programme using web-based software.	To be able to use applications to create digital content.	To develop digital literacy skills to collect and connect safely.
We will develop the knowledge and skills that children need to succeed	Develop children's vocabulary acquisition and oracy skills so that they can articulate their thoughts both verbally and in written form, in order to communicate effectively in a range of situations.		Provide opportunities for children to be exposed to a wide variety of cultures, topics, themes and points of view to counter-balance the lack of diversity in our local demographic at our largely white British school, in order to prepare them for life in modern Britain.

How we organise learning in Computing, through the development of Big Ideas

Pupils revisit these five key areas throughout KS1 and KS2. Each time a key area is revisited, it is covered with greater complexity. Upon returning to each key area, prior knowledge is utilised so pupils can build on previous foundations, rather than starting again.

Explore and Investigate Whole School Big Ideas	**Computing systems & networks**	**Programming**	**Creating media**	**Data Handling**	**Online Safety**
Aspects of knowledge that may be included:	Identifying hardware and using software, while exploring how computers communicate and connect to one another.	Understanding that a computer operates on algorithms, and learning how to write, adapt and debug code to instruct a computer to perform set tasks.	Learning how to use various devices — record, capture and edit content such as videos, music, pictures and photographs.	Ensuring that information is collected, recorded, stored, presented and analysed in a manner that is useful and can help to solve problems.	Understanding the benefits and risks of being online — how to remain safe, keep personal information secure and recognising when to seek help in difficult situations.

The Big Ideas are developed through the understanding of Key Themes or Schema:

Develop understanding over time of Three Key Themes of Schema	**Information Technology** • Can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.	**Computer Science** • Can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation. • Can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems.	**Digital Literacy** • Are responsible, competent, confident and creative users of information and communication technology.

Implementation: How do we deliver our Curriculum?

Early Years	Children's development will be supported as they make sense of their physical world and their community through a variety of activities and experiences that reflect upon the Characteristics of Effective Teaching and Learning, including opportunities to explore, observe and find out about people, places, technology and the environment. Our EYFS lessons are a natural precursor to our Year 1 Computing plans. They are designed especially for the Reception classroom and are play-based, hands-on and fun! A full outline of the EYFS specifically linked to Computing can be found in our Computing Overview and End Points document.
Progression	**Progression in Learning from Reception to Year 6 is outlined in our Computing Overview and End Points document.**

Key Stage One Disciplinary Knowledge – In the context of…	**Year A 2023-4**	**Year B (2023-4 YR2), 2024-5**
	Online Safety: Online security Taught at the start and throughout the year including Internet Safety Day **Computing systems and networks:** Improving Mouse Skills **Programming:** Algorithms unplugged Programming Bee-Bots **Creating media:** Digital Imagery **Data handling:** Introduction to data	**Online Safety:** Online security Taught at the start and throughout the year including Internet Safety Day **Programming:** Algorithms & Debugging Programming Scratch Junior **Computing systems and networks:** What is a computer? Word processing **Creating media:** Stop Motion Animation **Data handling:** International Space Centre
	Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, internet research to find images, taking photos on the tablets, simple Word and PowerPoint documents for publishing writing in other areas of the curriculum.	

Lower Key Stage Two Disciplinary Knowledge – In the context of…	Year A -2023-4	Year B - 2024-5
	Online Safety: Fake news, the dangers of Social media Taught at the start and throughout the year including Internet Safety Day **Computing systems and networks:** Networks Emailing **Programming:** Scratch **Creating media:** Video Trailers **Data handling:** Comparison cards databases	**Online Safety:** Online search results & bots Taught at the start and throughout the year including Internet Safety Day **Computing systems and networks:** Collaborative Learning Computational Thinking **Programming:** Scratch **Creating media:** Website Design 3D Modelling **Data handling:** Investigating weather
	Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, internet research for self-study, use of digital images (copying, pasting, cropping and manipulating) publishing writing in English and presenting information etc.	

Upper Key Stage Two Disciplinary Knowledge – In the context of…	Year A - 2023-4	Year B - 2024-5
	Online Safety: Online presence and cyberbullying Taught at the start and throughout the year including Internet Safety Day **Computing systems and networks:** Search Engines **Programming:** Scratch – programming music Micro:bit **Creating media:** Stop Motion Animation **Data handling:** Mars Rover 1	**Online Safety:** Digital reputation and online security Taught at the start and throughout the year including Internet Safety Day **Computing systems and networks:** Bletchley Park **Programming:** Introduction to Python **Creating media:** History of Computers **Data handling:** Big data 1 & 2
	Retrieval practice: Other opportunities for computing will arise through other curriculum subject lessons, for example, presentations, graphs in maths, internet research for self-study, use of digital images (copying, pasting, cropping and manipulating), iMovie editing for assemblies and drama, publishing writing in English etc.	

Impact	Most children achieve the End Point Milestones For Computing		
	Children become…		
	Reflective, engaged learners who enjoy learning and who are knowledgeable and skilled make progress and show how **remarkable** they are.	**Resilient**, articulate, independent individuals, who can lead safe, healthy and fulfilling lives in the communities in which they live now and in the future.	**Responsible** and **respectful** citizens of the world who have the capacity to make positive contributions to society.