Multiple Year Long term planning for Computing

The KS1 and KS2 national curriculum (remembering we have half of KS2)

KS1		**Understand algorithms** • How they are implemented and • how programs execute by following precise and unambiguous instructions.	**Create and debug simple programs**	**Use logical reasoning to predict the behaviour of simple programs**	**Using IT to** create, organise, store, manipulate and retrieve digital content.	**Recognise common uses of IT beyond school**	**Use technology safely and respectfully** • keep personal info private, • identify where to go for help and support about content or contact
KS2	**Understand computer networks** Including the internet, how they provide service and opportunities for communication and collaboration.	**Design, write and debug programs that accomplish specific goals** • controlling physical systems • solve problems by decomposing into smaller parts	**Use sequence, selection and repetition in programs, work with variables** and **various forms of input and output.**	**Use logical reasoning** • to explain how some simple algorithms work, • detect and correct errors in algorithms and programs	**Select, use and combine a variety of software on a range of devices** to design & create programs System and content that accomplish given goals including collecting, analysing, evaluating and presenting data / info.	**Use search technologies effectively** • how results are ranked • be discerning in evaluating content	**Use technology safety, respectfully and responsibly** • recognise unacceptable behaviour • identify a range of ways to report concerns about content and contact

Early years

Nursery and Reception Key skills	Ensure children's 'school readiness' and 'give them a broad range of knowledge and skills that provide the right foundation for good future progress through school and life' - Statutory Framework for EYFS September 2021. Computational Thinking is at the heart of the computing curriculum and children will only be ready for this subject if we provide them with foundational experiences. The problem solving of Computational Thinking closely aligns with the Characteristics of Effective Learning. Key skills: Use different digital devices. Recognise that you can access content on a digital device. Use a mouse, touchscreen or appropriate access device to target and select options on screen. Recognise a selection of digital devices. Recognise the basic parts of a computer, e.g. mouse, screen, keyboard. Select a digital device to fulfil a specific task, e.g. to take a photo.					
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	• Barefoot computing- Awesome Autumn • Technology around us	• Barefoot computing- Busy bodies • Toys- coding critters	• Barefoot computing- Winter warmers • Music creations	• Barefoot computing- Spring time • Cooking – Jam sandwich/ pizza	• Barefoot computing- Boat Ahoy • Art and algorithms	• Barefoot computing- Summer time • Lego building • Crazy Characters

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing topic for the half term	**E-safety Use IT/common uses**	**Programming/ Algorithms**	**Creating Media**	**E-safety Algorithms/ Data**	**Creating media**	**E-safety Programming**
2023/24	KS1: Project evolve – Online bullying. KS1: Key board skills, JiT 5 block creator.	KS1: Robot programming	KS1: Creating media- digital painting	KS1: Project Evolve- Online relationships. KS1: Grouping data	KS1: Creating music	KS1: Project Evolve- self image KS1: Scratch junior
	KS2: Project evolve – Online bullying. KS2: Canva- desktop publishing	KS2: Scratch- sequencing sounds	KS2: Creating media- stop frame animation	KS2: Project Evolve- online relationships. KS2: Data logging	KS2: Garage band	KS2: Project Evolve – self image KS2: repetition in games
2024/2025	KS1: Project evolve. KS1: Technology around us.	KS1: Moving a bee bot	KS1: Digital writing	KS1: Project evolve. KS1: Data – pictograms KS1: Hour of code	KS1: Digital photography	KS1: Project evolve. KS1: Programming quizzes
	KS2: Project evolve. KS2: Connecting computers	KS2: Events and actions in programming	KS2: Audio production	KS2: Project evolve. KS2: Branching database KS2: Hour of code	KS2: Photo editing	KS2: Project evolve. KS2: Repetition in shapes