Computing Curriculum Map

EYFS	**When they leave the Early Years, we expect children to be able to:**
	• Explore a range of real-world technology and play technology. • Watch and operate the use of office equipment. Observe technology around them such as automatic doors and cash machines. • Create role play experiences such as using a cashpoint. • Explore a range of apps, software and hardware and talk about their purposes. • Children take photographs, record voices and use tablets or video cameras to capture their learning. • Share learning using a class page of the school website, a blog or class Twitter account. • Share learning experiences using Skype or other video conferencing across classes, across schools, or with an expert who could be anywhere in the world. • Retrieve information from a computing device using QR codes, child friendly search engine, image based hyperlink

	Autumn	**Spring**	**Summer**
Year 1	• Recognise common uses of information technology. • • Understand where to go for help and support when they have concerns about content or contact om the internet or other online technologies.	• To use technology purposefully to create digital content. • Focus: Book Creator / Everyone Can Create chapter 1	• Predict the behaviour of simple programs. • Understand what algorithms are and how they implemented on digital devices.

Year 2	• Recognise common uses of information technology beyond school. • Use technology purposefully to create, organize, store, manipulate and retrieve digital content. • Use technology safely and keep personal information private.	• Use technology purposefully to create digital content, comparing the benefits of different programs.	• Use logical reasoning to predict the behaviour of simple programs. • Create and debug simple programs. • Debug simple programs by using logical reasoning to predict the actions instructed by the code. • Understand that programs execute by following precise and unambiguous instructions. • **Focus Get Started with code 1 Tynker**
Year 3	• Recognise an input and output device and how they are used. • Make efficient use of familiar forms of input and output devices. • Understand that computer network enables the sharing of data and information. • Understand that the internet is a large network of computers and that information can be shared between computers. • With support select and use a variety of software to accomplish goals.	• Use technology safely and respectfully keeping personal information private. • Use technology safely and recognise acceptable and unacceptable behaviour. • Use simple search technologies. • Use simple search technologies and recognise that some sources are more reliable than others.	• Design write, and debug programmes that control or simulate virtual events. • Use logical reasoning to explain how some simple algorithms work. • **Focus Get Started with code 1 Tynker**
Year 4	• Use other input devices such as cameras or sensors. • Understand what servers and how they provide services to a network. • With support, select and use a variety of software on a range of digital devices.	• Use technology responsibly and understand that communication inline may be seen by others. • Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies. • Understand how results are selected and rank by search engines.	• Decompose programmes into smaller parts. • Use logical reasoning to detect and correct errors in algorithms and programs. • Select, use, and combine a variety of software, systems and content that accomplish given goals.

	• With support, select, use, and combine a variety of software on a range of digital devices to accomplish given goals.		
Year 5	• Begin to use internet services to share and transfer data to a third party. • Independently select and use appropriate software for a task. • Independently select, use, and combine a variety of software to design and create content for a given audience.	• Understand the need to only select age-appropriate content. • Use filters in search technologies effectively. • Use filters in search technologies effectively and appreciate how results and selected and ranked.	• Design, input and test an increasingly complex set of instructions to a program or device. • Design, write, and debug programs that accomplish specific goals including controlling or simulating physical systems. • Design, write, and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. • Design, write, and test simple programs with opportunities for selection where a particular result will happen based on actions or situations controlled by the user. • Use logical reasoning to explain how increasingly complex algorithms work to ensure a programs efficiency.
Year 6	• Understand how computer networks enable computers to communicate and collaborate. • Begin to use the internet within their own creations to share and transfer data. • Independently select, use, and combine a variety of software to design and create content for a given audience including collecting analysing, evaluating, and presenting data and information. • Design and create a range of programs, systems and content for a given audience.	• Use technology respectfully and responsibly. • Identify a range of ways to report concerns about content and contact in and out of school. • Be discerning when evaluating digital content. • Use filters in search technologies effectively and is discerning when evaluating digital CONTENT.	• Include use of sequences, selection, and repetition with the hardware used to explore real world systems. • Solve problems by decomposing them into smaller parts. • Create programs which use variables. • Use variables, sequence, selection, and repetition in programs. • Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.

	Independently select, use, and combine a variety of software to collect, analyse, evaluate and present data and information.		