Chelmondiston C of E Primary School

Long Term Plan of Content Coverage for Computing

St Edmundsbury and Ipswich Diocesan Multi Academy Trust

Subject Intent: Our Computing curriculum aims to reflect the fact that computing and the use of computer technology has become a significant and largely unavoidable part of everyone's daily life. It is our aim that children are enabled to stay at the forefront of development and change in this area of modern life, inspired and excited about the potential and scope of all that the world of computing can offer. The curriculum is designed to increase the children's knowledge and understanding of technology and to develop the fundamental and transferable skills required to engage with technology not only in computing lessons, but across the curriculum and in their lives outside of school.

Big Ideas: **Computational Thinking, Creative Problem-Solving, Safe, Informed Communication**

Year 1

	Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Area of Learning	E-safety Computing systems, networks Technology around us.	Creating Media Digital painting	Creating Media Digital writing	Data and Information- Grouping Data	Programming A Moving a Robot	Programming B Introduction to Animation
	Statements from National Curriculum	• To recognise common uses of information technology in the home and school environment. • To understand where to go for help and support when se/she has concerns about content or contact on the internet or other online technologies.	• To use technology purposefully to create digital content.	• To recognise the common uses of information technology in the home and school environment. • To use technology purposefully to create digital content.	• To recognise the common uses of information technology in the home and school environment. • To use technology purposefully to create digital content.	• To predict the behaviour of simple programs. • To understand what algorithms are and how they are implemented on digital devices.	• To predict the behaviour of simple programs. • To understand what algorithms are and how they are implemented on digital devices.

	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:** • To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.

Year 2

	Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Area of Learning	E-safety Computing Systems and Networks IT Around Us	Creating Media Digital Photography	Creating Media Making Music	Data and Information- Pictograms	Programming A Robot Algorithms	Programming B An Introduction to Quizzes
	Statements from National Curriculum	• To use technology safely and keep keeping personal information private. • To identify where to go for help and support when they have concerns about content or contact on the internet or other online	• To use logical reasoning to predict behaviour of simple programs. • To use technology purposefully to create organise, store, manipulate and retrieve digital content.	• To use logical reasoning to predict behaviour of simple programs. • To use technology purposefully to create organise, store, manipulate and retrieve digital content.	• To use technology purposefully to create organise, store, manipulate and retrieve digital content. • To use technology purposefully to create digital content comparing the benefits of different	• To use logical reasoning to predict behaviour of simple programs. • To create simple programs. • To create and debug simple programs. • To debug simple programs by using the logical reasoning to predict the	• To use logical reasoning to predict behaviour of simple programs. • To create simple programs. • To create and debug simple programs. • To debug simple programs by using the logical reasoning to predict the

		technologies. • To recognise common uses of technology beyond school.			programs.	actions instructed by the code. • To understand that programs execute by following precise and unambiguous instructions.	actions instructed by the code. • To understand that programs execute by following precise and unambiguous instructions.
	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:** • To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.					

Year 3

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Area of Learning	E-safety Computing Systems and Networks	Creating media- animation	Creating Media Desktop Publishing	Data and Information Branching Databases	Programing A Sequence in Music	Programming B Events and Action
Statements from National Curriculum	• To use technology safely and respectfully, keeping personal information private. • To use technology safely and recognise acceptable and unacceptable behaviour. • To recognise familiar forms of input and output devices and how they are used. • To make efficient use of familiar forms of input and output devices. • To understand that computer networks enable sharing of data and information.	• To select and use a variety of software to accomplish goals. • To use simple search technologies. • To use technology safely and respectfully.	• To select and use a variety of software to accomplish goals. • To use simple search technologies. • To use technology safely and respectfully.	• To make efficient use of familiar forms of input and output devices. • To select and use a variety of software to accomplish goals.	• To design, write and debug programs that control or simulate virtual events. • To use logical reasoning to explain how some simple algorithms work.	• To design, write and debug programs that control or simulate virtual events. • To use logical reasoning to explain how some simple algorithms work.

		• To understand that the internet is a large network of computers and that information can be shared between computers.					
	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:** • To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.					

Year 4

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Area of Learning	E-Safety Computer systems and Networks The Internet	Creating Media Audio Editing	Creating Media Photo Editing	Data Information Data Logging	Programming A Repetition in Shapes	Programming B Repetition in Games
Statements from National Curriculum	• To use technology responsibly and understand that communication online may be seen by others. • To understand where to go for help and support when he/she has concerns about content or contact on the internet or other online technologies. • To understand how results are selected and ranked by search engines. • To understand what servers are and how they provide services to a network.	• To use other input devices such as cameras or sensors. • To select and use a variety of software on a range of digital devices. • To select, use and combine a variety of software on a range of digital devices to accomplish given goals.	• To use other input devices such as cameras or sensors. • To select and use a variety of software on a range of digital devices. • To select, use and combine a variety of software on a range of digital devices to accomplish given goals.	• To use other input devices such as cameras or sensors. • To select, use and combine a variety of software on a range of digital devices to accomplish given goals.	• To decompose programs into smaller parts. • To use logical reasoning to detect and correct errors in algorithms and programs. • To select, use and combine a variety of software, systems and content that accomplish given goals.	• To decompose programs into smaller parts. • To use logical reasoning to detect and correct errors in algorithms and programs. • To select, use and combine a variety of software, systems and content that accomplish given goals.

	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:** • To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.

Year 5

	Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Area of Learning	E-safety Networks Computing Systems and Networks Sharing Information	Creating Media Vector Drawing	Creating Media Video Editing	Data and Information Flat File Data Bases	Programming A Selection in Physical Computing	Programming B Selection in Quizzes
	Statements from National Curriculum	• To understand the need to only select age appropriate content. • To use internet services to share and transfer data to a third party. • To use filters in search technologies effectively and	• To independently select and use appropriate software for a task. • To independently select, use and combine a variety of software to design and create contents for a given audience.	• To independently select and use appropriate software for a task. • To independently select, use and combine a variety of software to design and create contents for a given audience.	• To independently select and use appropriate software for a task. • To independently select, use and combine a variety of software to design and create contents for a given audience.	• To design, input and test an increasingly complex set of instructions to a program or device. • To design, write and debug programs that accomplish specific goals, including	• To design, input and test an increasingly complex set of instructions to a program or device. • To design, write and debug programs that accomplish specific goals, including

		appreciates how results are selected and ranked. • To independently select, use and combine a variety of software to design and create contents for a given audience.				controlling or simulating physical systems. • To design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. • To design, write and test simple programs with opportunities for selections, where a particular result will happen based on actions or situations controlled by the user. • To use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency.	controlling or simulating physical systems. • To design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. • To design, write and test simple programs with opportunities for selections, where a particular result will happen based on actions or situations controlled by the user. • To use logical reasoning to explain how increasingly complex algorithms work to ensure a program's efficiency.
	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:**					

		• To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.

Year 6

Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Area of Learning	E-safety Networks, Computer Systems and Networks Communication	Creating Media 3D Modelling	Creating Media Web Page Creation	Data and Information Spreadsheets	Programming A Variables in Games	Programming B Sensing
Statements from National Curriculum	• To use technology respectfully and responsibly. • To identify a range of ways to report concerns about content and contact in and out of school. • To understand how computer networks enable computers to communicate and collaborate. • To begin to use internet services within his/her own creations to share and transfer data to a third party. • To use filters in search technologies	• To 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. • To independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information.	• To 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. • To independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information. • To design and	• To 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. • To independently select, use and combine a variety of software to collect, analyse, evaluate and present data and information.	• To include use of sequences, selection and repetition with the hardware used to explore real world systems. • To solve problems by decomposing them into smaller parts. • To create programs which use variables. • To use variables, sequence, selection and repetition in programs. • To use logical reasoning to	• To include use of sequences, selection and repetition with the hardware used to explore real world systems. • To solve problems by decomposing them into smaller parts. • To create programs which use variables. • To use variables, sequence, selection and repetition in programs. • To use logical reasoning to

		effectively and be discerning when evaluating digital content.		create a range of programs, systems and content for a given audience. • To begin to use internet services within his/her creations to share and transfer data to a third party.		explain how increasingly complex algorithms work to detect and correct errors in algorithms and programs efficiently.	explain how increasingly complex algorithms work to detect and correct errors in algorithms and programs efficiently.
	SMSC and FBV Connections	**Spiritual Development:** • To show a sense of enjoyment and fascination in learning about themselves, others and the world around them. • To use imagination and creativity in their learning. • To show willingness to reflect on their experiences. **Social Development:** • To show willingness to participate in a variety of communities and settings, including by volunteering, cooperating well with others and being able to resolve conflicts effectively. • To show acceptance and engagement with fundamental British values of democracy, the rule of law, individual liberty and mutual respect and tolerance of those with different faiths and beliefs; they develop and demonstrate skills and attitudes that will allow them to participate fully in and contribute to life in Modern Britain.						