Curriculum Overview
Computing

Churchfields Primary School – Computing Curriculum Overview

Year	Autumn		Spring		Summer	
EYFS	**Understanding the World - Technology** Children will have opportunities to explore, observe and find out about: equipment such as torches, radios, computers and iPads, mechanisms, toys with buttons, cameras and computer programs. They will do this through: real-life experiences, discussions and class teaching.					
1	**E-Safety** How to look after equipment	**Logging On** Usernames, passwords, basic keyboard skills	**Keyboard Skills** Microsoft Word - Keys, functions, typing	**Introduction to Coding** Bee-Bots – programming a robot	**E-Safety** Personal information is private (passwords and usernames)	**Exploring Different Programs** Microsoft Word, PowerPoint, Paint
2	**E-Safety** Personal information is private (emails, texts, passwords, images)	**Storing and Saving** Saving work, reloading previous work	**Presentation Skills** Microsoft Word and PowerPoint – italics, bold, underline	**Animations** ScratchJr	**E-Safety** Online Safety – websites, searches, uploads and sharing	**Using the Internet** Google, search, websites, images
3	**E-Safety** Being Kind Online (cyber bullying)	**Typing Skills** Touch typing – BBC Dance Mat	**Presentation Skills** Creating a PowerPoint Presentation	**Coding** Algorithm, programming – Lightbot, ScratchJr	**E-Safety** Online "friends" (Are they real? Stay safe!)	**Desktop Publishing** Creating a book/magazine front cover
4	**E-Safety** Looking after equipment (iPads) and safe usage	**Different Ways to Communicate** Microsoft Teams, email, Microsoft Word	**Fake Images** Changing and editing images	**Revisiting Coding** Tynker Junior/ Lightbot, Scratch Jr	**E-Safety** Staying Safe Online (copyright, digital footprints)	**Creating a Podcast** Audio, record, editing
5	**E-Safety** Staying Safe Online (safe sites, viruses, cookies and fake news)	**Typing Skills** Touch typing – Typing Club	**Creating and Editing Media** Editing images to create a stop motion animation	**Coding Quizzes** Using Scratch to create a quiz	**E-Safety** Social Media (age restrictions, SMART)	**Project: PenPal Schools** Schools Around the World
6	**E-Safety** Personal Information is private (social media and gaming)	**Spreadsheets** Microsoft Excel, table, cells, formula, graphs	**Editing and Improving Work** Effects, alignment, animation, transition	**Revisit Typing Skills** Touch typing – Typing Club	**E-Safety** Negatives of Being Online (Phishing, trolling, scams)	**Creating Our Own Games** Coding with Scratch

Themes Running Through All Units of Learning

Every unit of learning that children encounter during their time at Churchfields will include the following themes. These themes will help children to make links to previous learning and build on existing knowledge. Underneath each subheading is relevant crucial knowledge.

These themes may be covered during recall tasks when revisiting previous learning, during the input to new learning or in the plenary at the end of the lesson. The children's main task may also focus on one of these themes.

Computer Safety	Computer Programs	Computer Competency	Computer Resilience
Being safe and keeping safe on the internet and in using technology and electrical equipment	Being able to use a variety of computing programs and applications such as Microsoft Word, Scratch and Typing Club	Being confident and able to use a computer in a variety of ways such as typing, saving and using a computer/ iPad	Being questioning and respectful online and identifying problems, working through/ solving them

EYFS – Computing "I Can"

Throughout the Year
Computing lessons, real-life experiences, discussions and class teaching
I can take a photograph with a tablet, iPad or camera
I can search for information using the internet
I can use an iPad or tablet to play games
I can use the interactive whiteboard to play games or select an answer
I can watch a video on the interactive whiteboard or on a tablet or iPad
I can listen to music through the interactive whiteboard or on a tablet or iPad
I can include technology in role play situations
I can type or write words such as my name
I can talk about technology in the world and how I use it
I can read books using the interactive whiteboard or on an iPad or tablet
I can say some of the rules in using technology
I can say some of my personal information that I know is private and should be kept safe
I can explore torches, radios, computers and iPads, mechanisms, toys with buttons, cameras and computer programs

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Year 1 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Logging On**	Spring 1 **Keyboard Skills**	Spring 2 **Intro to Coding**	Summer 1 **E-Safety**	Summer 2 **Programs**
A **computer** is an electronic device that works with information	R – A **keyboard** is a set of keys used on a computer that you press to make it work	**Spacebar** is a key that allows you to create spaces between characters	**Coding** tells a machine what to do and how to do it	R – A **password** is a secret sequence of characters that proves who you are	**Recap Extended**: Knowledge – **Microsoft Word** is a software used for writing
A **mouse** is a hand-held device and points to a place on a screen	R – A **key** is something you press on a computer keyboard to make letters, numbers or symbols	**Font** is a set of characters in a specific style and size	**Bee-Bot** is a robot which can be coded to move in different directions	R – A **username** is a sequence of characters that allows you to use a computer or website	An **application** is a computer program that you can do things on
A **keyboard** is a set of keys used on a computer that you press to make it work	A **username** is a sequence of characters that allows you to use a computer or website	**Colour** is a way that we describe an object in how it looks	**Forwards** =	**Risk** is a situation which could be dangerous	A **program** is a set of instructions that a computer can run
A **key** is something you press on a computer keyboard to make letters, numbers or symbols	A **password** is a secret sequence of characters that proves who you are	**Text** is words	**Backwards** =	**Personal** means something belongs to a particular person rather than anyone else	**Extended:** **Microsoft PowerPoint** is a software used to create presentations
Equipment is something we need for a specific purpose		**Extended:** **Microsoft Word** is a software used for writing	To **turn** is the action of moving to face a different direction	**Secure** means something is safe	**Extended:** **PaintZ** is a software used to create art work
			Go means to move from one place to another		
			Pause means to stop moving		
			Cancel is where you decide something will not happen		

Churchfields Primary School – Computing Curriculum Overview

Year 2 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Storing & Saving**	Spring 1 **Presentation Skills**	Spring 2 **Animations**	Summer 1 **E-Safety**	Summer 2 **Using the Internet**
R- A **password** is a secret sequence of characters that proves who you are	R – **Microsoft Word** is a software used for writing	R – **Microsoft PowerPoint** is a software used to create presentations	R – A **program** is a set of instructions that a computer can run	R - **Personal** means something belongs to a particular person rather than anyone else	R- **Search** means to find something
R – A **username** is a sequence of characters that allows you to use a computer or website	**Save** means to keep your work somewhere so it can be found again	R – **Microsoft Word** is a software used for writing	R – **Coding** tells a machine what to do and how to do it	R - **Secure** means something is safe	R - A **website** is a specific place on the internet
R - **Private** means something belongs to one person (or group of people) only	**Open** is where you locate previous work to look at it	R - **Font** is a set of characters in a specific style and size	A **command** is a specific action given to a program to perform a specific task	**Online** means being on the internet or computer network	R - An **image** is a picture of something
R - **Personal** means something belongs to a particular person rather than anyone else	**File** is a place or location where your work is stored	R - **Colour** is a way that we describe an object in how it looks	A **sprite** is a 2D image that is used in games	A **website** is a specific place on the internet	R - The **internet** is a worldwide system that connects computers
R - **Secure** means something is safe	**Documents** are electronic copies of work	R - **Text** is words	**Blocks** are a set of code	**Search** means to find something	**Extended:** **Google** is the world's most popular internet search engine
Email is a way of sending messages using an electronic device			A **background** is a digital image used on a screen	**Upload** is putting something onto a website or program	
Texts are messages sent over phone			A **value** is usually a number, single character or characters	**Sharing** is allowing other people to have or see what you have	
Photographs are images that people have taken in real life			**Extended:** An **algorithm** is a set list of instructions, used to solve problems or tasks	The **internet** is a worldwide system that connects computers	
An **image** is a picture of something			**Resources Available from:** Teach Computing	You must **TELL SOMEONE** if you feel unsafe online	

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Year 3 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Typing Skills**	Spring 1 **Presentation Skills**	Spring 2 **Coding**	Summer 1 **E-Safety**	Summer 2 **Publishing**
R- **Online** means being on the internet or computer network	R – A **key** is something you press on a computer keyboard to make letters, numbers or symbols	**Recap Extended:** **Microsoft PowerPoint** is a software used to create presentations	R – All of year 2 coding crucial knowledge	R- **Online** means being on the internet or computer network	R - **Text** is words
R – The **internet** is a worldwide system that connects computers	R - **Spacebar** is a key that allows you to create spaces between characters	R - **Font** is a set of characters in a specific style and size	An **algorithm** is a set list of instructions, used to solve problems or tasks	R - **Personal** means something belongs to a particular person rather than anyone else	R - An **image** is a picture of something
R – You must **TELL SOMEONE** if you feel unsafe online	**Touch typing** is where you press keys without looking at the keyboard	R - **Text** is words	**Possible Resources:** Lightbot ScratchJr	R - **Secure** means something is safe	R - **Font** is a set of characters in a specific style and size
TAG – Tell A Grown Up	The **home row** is where you place your fingers for touch typing	R - A **background** is a digital image used on a screen		**Sharing** is allowing other people to have or see what you have	R - **Colour** is a way that we describe an object in how it looks
Cyber bullying is when somebody uses technology to harass, threaten, embarrass or target another person				R – You must **TELL SOMEONE** if you feel unsafe online	R – **Touch typing** is where you press keys without looking at the keyboard
Resources Available from: ThinkUKnow				R – **TAG** – Tell A Grown Up	**Resources Available from:** Teach Computing
				Extended: **Phishing** is a technique for trying to steal somebody's private information.	
				Extended: **Catfishing** is where somebody sets up a fake profile, pretending to be somebody else.	

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Year 4 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Different Ways to Communicate**	Spring 1 **Fake Images**	Spring 2 **Revisit Coding**	Summer 1 **E-Safety**	Summer 2 **Podcast**
R – **Equipment** is something we need for a specific purpose	R - **Email** is a way of sending messages using an electronic device	R - An **image** is a picture of something	R – All of previous coding crucial knowledge	R- **Search** means to find something	R- **Editing** means to make changes to something
An **iPad** is a touchscreen tablet computer made by Apple	R – **Microsoft Word** is a software used for writing	R – **Copy** and **Paste** is a command that moves something from one place to another		R- **Online** means being on the internet or computer network	R – **Save** means to keep your work somewhere so it can be found again
A **camera** is a device which takes pictures	**Microsoft Teams** is a communication platform where documents can also be stored	R – An **application** is a computer program that you can do things on		R - **Sharing** is allowing other people to have or see what you have	A **podcast** is a digital audio file
Appropriate means something is suitable for your age		A **fake image** is where an image has been changed to something that is not real		R – You must **TELL SOMEONE** if you feel unsafe online	**Audio** means sound
		Editing means to make changes to something		**Copyright** is the rights and ownership which protects the work of others	**Recording** is where sound is stored so that it can be heard again
		Digital refers to any sort of technology		A **digital footprint** is the trail of information you leave when using the internet	**Audacity** is a program used to record or edit sound
		Cloning is the process of creating an exact copy of something else			**Resources to Use:** Audacity
		Resources Available from: Teach Computing			

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Year 5 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Typing Skills**	Spring 1 **Creating Media**	Spring 2 **Coding Quizzes**	Summer 1 **E-Safety**	Summer 2 **PenPal Schools**
R- **Online** means being on the internet or computer network	R – All of year 3 crucial knowledge for Typing Skills	R - An **image** is a picture of something	R – All of previous coding crucial knowledge	R – You must **TELL SOMEONE** if you feel unsafe online	R - **Email** is a way of sending messages using an electronic device
A computer **virus** is dangerous software that causes damage to data and software	**Resources to Use:** Typing Club	**Stop motion** is animation that is captured one frame at a time	A **condition** is a step in an algorithm where a decision must be made	R – **TAG** – Tell a Grown Up	R – **Text** is words
A **cookie** is a small piece of data that is stored on a website		**Animation** is making it seem like drawings, models or objects are moving	A **variable** is a value that can change	R – A **digital footprint** is the trail of information you leave when using the internet	R – **Touch typing** is where you press keys without looking at the keyboard
Fake news is false or misleading information that is presented as real news		A **frame** is a single image in a sequence of pictures	**Scratch** is a programming software and website	R - **Sharing** is allowing other people to have or see what you have	**Pen pals** are people who regularly write to each other
Extended: A **lock symbol** by the web address means the website is secure			**Resources to Use:** Scratch	**Social Media** is websites and applications that let people share content and communicate	**Resources to Use:** PenPal Schools Schools Around the World
Extended: **Malware** explores, steals and infects computer systems				A **post** is content shared on social media through a user's profile	
				Age restrictions are laws which prevents people under a certain age from doing	
				SMART is an acronym for staying safe online	

Year 6 – Computing Crucial Knowledge

Autumn 1 **E-Safety**	Autumn 2 **Spreadsheet**	Spring 1 **Editing and Improving**	Spring 2 **Typing Club**	Summer 1 **E-Safety**	Summer 2 **Own Games**
R – All year 2 and year 5 crucial knowledge from Autumn's E-Safety unit	**Microsoft Excel** is a spreadsheet software program	R – **Animation** is making it seem like drawings, models or objects are moving	R – All of previous crucial knowledge for typing (year 3 and year 5)	R – **Cyber bullying** is when somebody uses technology to harass, threaten, embarrass or target another person	R- All of previous crucial knowledge on Scratch
R - **Social Media** is websites and applications that let people share content and communicate	A **table** is where all the information is collected in rows and columns	You can use **effects** to change text or pictures	**Resources to Use:** Typing Club	R – A **fake image** is where an image has been changed to something that is not real	**Resources to Use:** Scratch
Gaming is the action or practise of playing video games	**Cells** are the boxes in the grid of an Excel spreadsheet	**Alignment** is how the text is arranged and looks		**Phishing** is a technique for trying to steal somebody's private information.	
	A **graph** is a picture to show the information (data)	**Transitions** are visual effects that occur when you move from one slide to the next		**Catfishing** is where somebody sets up a fake profile, sometimes using another person's information and images, pretending to be somebody else.	
	A **spreadsheet** is a computer software where data can be stored and analysed	**Resources to Use:** Microsoft PowerPoint		A "**troll**" is somebody who deliberately tries to cause offense, trouble or directly attack someone by posting or commenting online	
	Extended: A **formula** is an equation that can perform calculations			A **scam** takes place when somebody uses the internet to take advantage of victims, usually for financial gain	