Etwall Primary School - Computing Curriculum Overview

Our End Goal

What will our children be able to do when they leave Etwall Primary School?

By the end of their time at Etwall, our Y6 computer techies will be responsible, competent, creative and independent users of information technology. The children will be equipped with the transferable skills that will enable them to confidently choose the best tool to fulfil whatever task or challenge is expected of them. They will use computing terminology and vocabulary effectively and accurately. Computing learning opportunities at Etwall Primary School Pupils will inspire our children's love of the digital world and see its place in their future. Our children will use technology safely, respectfully and responsibly. They will recognise acceptable and unacceptable behaviour online and identify a range of ways to report concerns about content and contact.

Curriculum Coverage (National Curriculum)

What are the basic requirements from the National Curriculum?

EYFS	Year 1/2A	Year 1/2B	Year 3/4A	Year 3/4B	Year 5/6A	Year 5/6B
	Basic Skills	Basic Skills	Basic Skills	Basic Skills	Basic Skills	Basic Skills
	Multimedia (Animation, Text and Images)	Programming (Unplugged)	Multimedia (Animation, Text, Images and Sound)	The Internet/Networks and Data Representation	Music and Sound	Web Design
		Online Safety			Online Safety	Online Safety
	Online Safety	Programming	Online Safety	Handling Data	Multimedia (Animation,	Data and Spreadsheets
	Programming (Unplugged)		Music and Sound	Online Safety	Text, Images, Sound and	
	Programming	Computer Art	Programming	Programming	Video)	Network and Data Representation
	Music and Sound	Multimedia (Animation, Text and Images)		Web Design	Programming	Programming
					Multimedia – Film Making	

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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Parts of a computer	Keyboard Skills - Shift key, shortcut keys for	Folder skills	Typing- 15 words per minute	Order key events in the history of computers	Order key events in the history of computers
	Mouse Skills	editing	Word Processing - Font size/colour, Hyperlinks,	Word Processing - Insert	with support.	independently.
	Keyboard Skills - Caps, space, delete	Word Processing - Font Style, Colour + Size	layout	a hyperlink independently.	identify at least 3 causes of data corruption.	identify at least 5 causes of data corruption.
	Camera skills	Typing – 5 words per	Keyboard Skills - touch typing – 10 words per	Change the page colour independently (Design –	Typing- 20 words per	Typing- 25 words per
	Carriera skiiis	minute	minute	Page Colour). Bold, italicise and	minute	minute
	-Use technology purposefully to	- Use technology	-Select, use and combine	underline text using	Word Processing -	Word Processing - be
	create, organise, store, manipulate and retrieve digital content.	purposefully to create, organise, store,	a variety of software (including internet	keyboard shortcuts.	increased competency and independence when	competent and independent users of
	-Recognise common uses of information technology beyond	manipulate and retrieve digital content	services) on a range of digital devices to design	Save As and retrieve	using a word processing package.	word processing packages.
	schoolUse technology safely and	-Recognise common uses of information	and create a range of programs, systems and	-Select, use and combine a variety of software	-Select, use and combine	-Select, use and combine
	respectfully, keeping personal information private; identify	technology beyond school	content that accomplish given goals, including	(including internet services) on a range of	a variety of software (including internet	a variety of software (including internet
	where to go for help and support when they have concerns about	-Use technology safely and respectfully,	collecting, analysing, evaluating and	digital devices to design and create a range of	services) on a range of digital devices to design	services) on a range of digital devices to design
	content or contact on the internet or other online technologies.	keeping personal information private;	presenting data and information	programs, systems and content that accomplish	and create a range of programs, systems and	and create a range of programs, systems and
		identify where to go for help and support when	-Use technology safely, respectfully and	given goals, including collecting, analysing,	content that accomplish given goals, including	content that accomplish given goals, including
		they have concerns about content or contact	responsibly; recognise acceptable/unacceptabl	evaluating and presenting data and	collecting, analysing, evaluating and	collecting, analysing, evaluating and
		on the internet or other online technologies	e behaviour; identify a range of ways to report	information -Use technology safely,	presenting data and information	presenting data and information
			concerns about content and contact	respectfully and responsibly; recognise	 -Use technology safely, respectfully and 	 -Use technology safely, respectfully and
				acceptable/unacceptabl e behaviour; identify a	responsibly; recognise acceptable/unacceptabl	responsibly; recognise acceptable/unacceptabl
				range of ways to report concerns about content	e behaviour; identify a range of ways to report	e behaviour; identify a range of ways to report
				and contact	concerns about content and contact	concerns about content and contact

Multimedia

Media and Creation

Film Making

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Animation	Animation	Multimedia	Multimedia	Multimedia	Multimedia
	Learn how to animate at least one image/character by making it spin. Making different characters move along custom paths with support. Learn how to use speech recognition	Learn how to animate multiple images/characters by making them spin. Use other animation techniques, e.g. float in,	Animate at least 3 images/text within a premade presentation. Record at least 3 audio files with support.	Animate more than 3 images/text within a premade presentation. Record more than 3 audio files.	Understand that images, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation.	Understand that images, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation.
	 -Use technology purposefully to create, organise, store, manipulate and retrieve digital content. 	Use other motion paths, including turns, shapes, loops etc.	Insert at least 3 blank slides with support. Insert at least 3 actions	Insert more than 3 blank slides. Insert more than 3 actions	Insert and animate at least 5 images/text within a premade presentation. Record at least 5 audio files	Insert and animate more than 5 images/text within a pre-made presentation. Record more than 5 audio
		Make more than one character on each slide move.	buttons to hyperlink to other slides within a PowerPoint presentation with support.	buttons to hyperlink to other slides within a PowerPoint presentation. Add more than 3 slide	with support and play it automatically when a slide appears and time the slides to fit the audio with support.	files play it automatically when a slide appears and time the slides to fit the audio independently.
		Learn how to insert text boxes and format the text by changing the size, colour and style of the font, as well as copying and pasting the text on different slides.	Add at least 3 slide transitions with support. Find and save at least 3 copyright free images from	Find and save more than 3 copyright free images from the internet.	Insert at least 5 slides (with different layouts) with support.	Insert more than 5 slides (with different layouts) independently.
		Make the text boxes float in.	Insert at least 3 text boxes and change the text with	Insert more than 3 text boxes and change the text.	Format backgrounds with support.	Format backgrounds independently. Insert more than 5 actions
		-Use technology purposefully to create, organise, store,	Insert at least 1 hyperlink to a website with support.	Insert more than 1 hyperlink to a website with support.	Insert at least 5 actions buttons to hyperlink to other slides within a PowerPoint presentation to produce a non-linear	buttons to hyperlink to other slides within a PowerPoint presentation independently.
		manipulate and retrieve digital content	Create a presentation from scratch using at least 3 examples of each of the 4	Create a presentation from scratch using more than 3 examples of each of the 4 multimedia elements	presentation with support. Add at least 5 slide transitions with support.	Add at more than 5 slide transitions independently. Find and save more than 5
			multimedia elements with support . Include a contents page with support.	independently. Include a contents page independently.	Find and save at least 5 copyright free images from the internet with support.	copyright free images from the internet independently.
			-Select, use and combine a variety of software	-Select, use and combine a variety of software		

	(including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and	(including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and	Insert at least 5 text boxes and change the text with support. Insert at least 3 hyperlinks to a website with support. Record at least 1 example of video to be inserted into the presentation with	Insert more than 5 text boxes and change the text independently. Insert more than 3 hyperlinks to a website independently. Record at least 1 example of video to be inserted into
	information.	information	Create a presentation from scratch using at least 3 examples of each of the 5 multimedia elements with support.	the presentation independently. Create a presentation from scratch using more than 3 examples of each of the 5 multimedia elements independently.
			Include a contents page with support. Create a new video project	Include a contents page independently.
			and name it with support.	Create a new video project and name it
			Place at least 5 photos (cards) in the storyboard.	independently. Place more than 5 photos
			Rearrange the cards on the storyboard with support.	(cards) in the storyboard.
			Jump around the video by dragging the scrubber or	Rearrange the cards on the storyboard independently.
			selecting the appropriate card with support.	Jump around the video by dragging the scrubber or selecting the appropriate
			Trim clips with support. Change the duration of	card independently. Trim clips independently.
			how long a photo appears in the video with support.	Change the duration of how long a photo appears
			Add titles, captions and credits with support.	in the video independently.
			Add 3D effects with support.	Add titles, captions and credits independently.
			Add music and narration with support.	Add 3D effects independently.

				-Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Add music and narration independently. -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EYFS	Know that computers are used to record sound. Know that a microphone and headphones/speakers are needed to record and listen to sound. Use the record, stop and play button to record reading a page from the current reading book with support. Learn at least one page from a story suitable for EYFS children (preferably a book which lends itself to using expression and sound effects) and record it onto PowerPoint with support. Select a short story and record it onto PowerPoint using expression and sound effects with support. Y1 children could work together on this so that they can share the pages between them. Save each media file with support. Upload the files on an online voice recorder with support. -Use technology to purposefully to create, organise, store, manipulate and retrieve digital contentRecognise common uses of information technology beyond school.	Know that computers, tablets, mobile phones, talking tins etc are used to record sound. Know that the input needed to record sound with a computer is a microphone and the outputs needed are either speakers or headphones. Use the record, stop and play button to record reading a page from the current reading book independently. Learn a story suitable for EYFS children (preferably a book which lends itself to using expression and sound effects) and record it onto PowerPoint independently, remembering to record each page as a separate media file. Select a longer story and record it onto PowerPoint using expression and sound effects independently. Save each media file independently. upload the files to an online voice recorder independently. -Use technology	Work in mixed ability pairs to experiment recording, playing, deleting and saving voice tracks. Suggest saying, 'Testing 1, 2, 3. Welcome to my demo recording,' when recording. Read a poem, one stanza at a time and add at least 3 sound effects. 'The Sound Keeeper' poem could be used. Annotate a short poem, indicating what 3 sound effects (at least) are going to be used and where they are going to be inserted. Record the poem with support. -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and	Be able to name more than 3 devices that can record sound. Use pause, echo effect, background effects and be able to edit sections of tracks. Read a poem, one stanza at a time and add more than 3 sound effects. 'The Sound Keeeper' poem could be used. Annotate a longer poem, indicating what sound effects (more than 3) are going to be used and where they are going to be inserted. Record the poem independently. If time, type up the longer poem so that it can be included in the anthology. If not, a photocopy of the poem can be used. -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including	Pear 5 Be able to name at least 5 devices that can record sound. Edit a pre-recorded track with support. Read a poem, one stanza at a time and add at least 5 sound effects. Annotate 'Peace at Last', indicating what 5 sound effects (at least) are going to be used and where they are going to be inserted. Record the story with support. -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Pear 6 Be able to name more than 5 devices that can record sound. Edit a pre-recorded track independently. Read a poem, one stanza at a time and add more than 5 sound effects. Annotate 'Peace at Last', indicating more than 5 sound effects (at least) are going to be used and where they are going to be inserted. Record the story independently. Add intro and outro music independently. -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

manipulate and retrieve	presenting data and	
digital content	information	
-Recognise common		
uses of information		
technology beyond		
school.		

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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Program a Bee-Bot to accomplish a specific goal	Predict the route of a Bee- Bot, try it out and explain	Understand the basics of Scratch.	Understand the basics of Scratch.	Use selection in an infinite loop to check a condition.	Use selection in an infinite loop to check a condition.
	Independently explore the different	what happened.	Create sequences by clicking blocks together.	Understand how motion blocks work.	Identify the condition and outcomes in an 'if then	Identify the condition and outcomes in an 'if then
	blocks in Scratch Junior. Predict the behaviour of simple	Navigate a Bee-bot from A to B while missing out C.	Understand how sound blocks work.	Understand how sound blocks work.	else' statement. Design the flow of a program which contains	else' statement. Design the flow of a program which contains
	programs using logical reasoning with support.	Articulate what debugging is and debug instructions if/when they go wrong	Plan and create a rock band with 5 instruments.	Create sequences by clicking blocks together.	'if then else'	'if then else'
	-Understand what algorithms are,	independently. Create a maths quiz using	Duplicate code.	Plan and create a rock	outline my project.	outline my project.
	how they are implemented as programs on digital devices, and that programs execute by	-Understand what	Use repetition and 'pen down.'	band with more than 5 instruments.	Identify the outcome of user input in an algorithm.	Identify the outcome of user input in an algorithm.
	following precise and unambiguous instructions.	algorithms are, how they are implemented as	Design and create a simple maze-based challenge.	Duplicate code. Use repetition and 'pen	Implement my algorithm to create the first section of my program.	Implement my algorithm to create the first section of my program.
	-Create and debug simple programs -Use logical reasoning to predict	programs on digital devices, and that programs execute by	Create a drawing program (Etch a Sketch).	down.' Design and create a simple	Test my program.	Test my program.
	the behaviour of simple programs	following precise and unambiguous	Build and program a Lego robot to accomplish a	maze-based challenge. Create a drawing program	Identify ways the program could be improved.	Identify ways the program could be improved.
		instructions -Create and debug	specific goal.	(Etch a Sketch).	-Design, write and debug	Extend a program further.
		simple programs -Use logical reasoning to predict the behaviour of	-Design, write and debug programs that accomplish specific	Build and program a Lego robot to accomplish a specific goal.	programs that accomplish specific	Use variables within a program.
		simple programs	goals, including controlling or simulating physical systems; solve	-Design, write and debug programs that	goals, including controlling or simulating physical systems; solve	-Design, write and debug programs that
			problems by decomposing them into	accomplish specific goals, including	problems by decomposing them into smaller parts	accomplish specific goals, including controlling or simulating
			smaller parts -Use sequence, selection, and repetition	controlling or simulating physical systems; solve problems by	-Use sequence, selection, and repetition	physical systems; solve problems by
			in programs; work with variables and	decomposing them into smaller parts	in programs; work with variables and various forms of input	decomposing them into smaller parts -Use sequence,
			various forms of input and output- -Use logical reasoning to	Use sequence, selection, and repetition in programs;	and output -Use logical reasoning to	selection, and repetition in programs;
			explain how some		explain how some	

	simple algorithms work and to detect and correct errors in algorithms and programs	work with variables and various forms of input and output -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	simple algorithms work and to detect and correct errors in algorithms and programs	work with variables and various forms of input and output -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs
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EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
	Create an algorithm for a familiar activity by sequencing up to 5 pictures (i.e. brushing teeth). Create, follow and debug an algorithm from a set 5 pictorial instructions.	Create an algorithm for brushing your teeth by sequencing more than 5 pictures (i.e. brushing teeth).	Build a robot that can drive and turn, and then program it to move on a surface using WeDo Lego 2.0 with support; using sequence and repetition.	Build a robot that can drive and turn, and then program it to move on a surface using WeDo Lego 2.0 independently; using sequence and repetition.	Recall how conditions are used in selection. Identify and modify conditions in a program.	Share my program with others. Identify ways the program could be improved.			
	Independently explore the different blocks in Scratch Junior. Predict the behaviour of simple	Create, follow and debug an algorithm from a set of more than 5 pictorial instructions.	-Design, write and debug programs that accomplish specific	-Design, write and debug programs that accomplish specific	Create a program with different outcomes using selection.	Identify the setup code I need in my program.			
	programs using logical reasoning with support. -Understand what algorithms are,	Articulate what debugging is and debug instructions if/when they go wrong independently.	goals, including controlling or simulating physical systems; solve problems by decomposing them into	goals, including controlling or simulating physical systems; solve problems by decomposing them into	Explain that program flow can branch according to a condition. Use selection in an infinite loop to check a condition.	Extend my program further. Use selection in an infinite loop to check a condition.			
	how they are implemented as programs on digital devices, and that programs execute by following precise and	Create an animation using Scratch Junior.	smaller parts -Use sequence, selection, and repetition in programs;	smaller parts -Use sequence, selection, and repetition in programs; smaller parts -Use sequence, selection, and repetition in programs; smaller parts -Use sequence, selection, and repetition in programs; loop to check a condition smaller parts -Use sequence, selection, and repetition in programs; loop to check a condition loop to check a condition loop to check a condition smaller parts -Use sequence, selection, and repetition in programs;	smaller parts -Use sequence, selection, and repetition in programs;	Identify the condition and outcomes in an 'if then	Identify the condition and outcomes in an 'if then else' statement. Design the flow of a		
	unambiguous instructionsCreate and debug simple programsUse logical reasoning to predict the behaviour of simple programs.	-Understand what algorithms are, how they are implemented as programs on digital devices, and that	various forms of input and output -Use logical reasoning to explain how some	work with variables and various forms of input and output -Use logical reasoning to explain how some	Design the flow of a program which contains 'if then else' Use a design format to	program which contains 'if then else' Use a design format to outline my project.			
	the behaviour of simple programs.	programs execute by following precise and unambiguous instructionsCreate and debug simple programsUse logical reasoning to	and to detect and correct errors in	simple algorithms work and to detect and correct errors in algorithms and programs. simple algorithms work and to detect and correct errors in algorithms and programs simple programs.	following precise and unambiguous and to detect and correct errors in correct errors in	following precise and unambiguous and to detect and correct errors in ldentify the large input.	and to detect and correct errors in	outline my project. Identify the outcome of user input in an algorithm.	Identify the outcome of user input in an algorithm. Implement my algorithm to
			-Create and debug simple programs. programs programs Impleme create the crea		Implement my algorithm to create the first section of my program.	create the first section of my program. Test my program.			
		predict the behaviour of simple programs.			Test my program. Identify ways the program	Identify ways the program could be improved.			
					could be improved.	Extend a program further.			
					-Design, write and debug programs that	Use variables within a program.			

		accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them 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 and to detect and	-Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them 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	and output
		correct errors in algorithms and programs	simple algorithms work and to detect and correct errors in algorithms and
			programs

Handling Data						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Introduced to data handling (mini-beast hunt) with the class on the IWB.	Introduced to data handling (mini-beast hunt) with the class on	Design and make a DIY weather station.	Design and make a DIY weather station.	Know what a spreadsheet is.	Know what a spreadsheet is.
	- Use technology purposefully to	the IWB.	Understand what data	Understand what data	Create a spreadsheet	Create a spreadsheet
	create, organise, store, manipulate and retrieve digital content	 Use technology purposefully to create, 	is and why we collect it.	is and why we collect it.	showing how far certain UK attractions are from	showing how far cert
		organise, store,	Know what the function	Know what the function	school and how long it	school and how long
		manipulate and retrieve digital content	of a database is.	of a database is.	will take to get there by selecting the most	will take to get there selecting the most
			Create a 'Class	Create a 'Class	appropriate data format	appropriate data form
			Database,' containing	Database,' containing	for each column.	for each column.
			information about the	information about the		

children in the class	children in the class	Know what formula is	Know what formula is
(paper-based and then	(paper-based and then	and how it can be used	and how it can be used
electronic).	electronic).	to produce calculated	to produce calculated
		data.	data.
Design a questionnaire	Design a questionnaire		
(using Google Forms) to	(using Google Forms) to	Create a spreadsheet	Create a spreadsheet
store information about	store information about	showing a group of	showing a group of
the weather and fill it	the weather and fill it	children's times table	children's times table
in.	in.	scores over a six-week	scores over a six-week
		period.	period.
Use the database to	Use the database to		
answer a list of	answer a list of	Create a spreadsheet	Create a spreadsheet
questions, e.g What day	questions, e.g What day	planning a celebratory	planning a celebratory
was the highest	was the highest	event for the class.	event for the class.
temperature? How	temperature? How	Begin by creating a	Begin by creating a
much rain was there on	much rain was there on	budget.	budget.
Tuesday? Etc.	Tuesday? Etc.		
		Choose suitable ways to	Choose suitable ways to
Pose own questions for	Pose own questions for	present data.	present data.
a friend to answer.	a friend to answer.		
		-Select, use and combine	-Select, use and combine
Explore presenting the	Explore presenting the	a variety of software	a variety of software
data in different ways.	data in different ways.	(including internet	(including internet
		services) on a range of	services) on a range of
-Select, use and combine	-Select, use and combine	digital devices to design	digital devices to design
a variety of software	a variety of software	and create a range of	and create a range of
(including internet	(including internet	programs, systems and	programs, systems and
services) on a range of	services) on a range of	content that accomplish	content that accomplish
digital devices to design	digital devices to design	given goals, including	given goals, including
and create a range of	and create a range of	collecting, analysing,	collecting, analysing,
programs, systems and	programs, systems and	evaluating and	evaluating and
content that accomplish	content that accomplish	presenting data and	presenting data and
given goals, including	given goals, including	information	information
collecting, analysing,	collecting, analysing,		
evaluating and	evaluating and		
presenting data and	presenting data and		
information	information		i

The Internet, Networks ar	ne Internet, Networks and Data Representation									
		,								
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				

nline Safety – Cycle	e A and B (Project Evolve)					
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
LIIJ	Recognise that there may be people online who could make someone feel sad, embarrassed or upset. Give examples of when and how to speak to an adult they can trust and how they can help. Give examples of when they should ask permission to do something online and explain why this is important.	Explain how other people may look and act differently online and offline. Give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened and give examples of how they might get help.	Explain what is meant by the term 'identity'. Explain how people can represent themselves in different ways online. Explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social	Explain how their online identity can be different to their offline identity. Describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.	Explain how identity online can be copied, modified or altered. Demonstrate how to make responsible choices about having an online identity, depending on context. Give examples of technology-specific forms of	Identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. Describe issues online that could make anyone
	Use the internet with adult support to communicate with people they know (e.g. video call	Give examples of how someone might use technology to communicate with	media) and why. Describe ways people who have similar likes	online can pretend to be someone else, including their friends, and can suggest reasons	communication (e.g. emojis, memes and GIFs).	feel sad, worried, uncomfortable or frightened.
	apps or services). Explain why it is important to be considerate and kind to people online and to respect their choices.	others they don't also know offline and explain why this might be risky. (e.g. email, online gaming, a pen- pal in another school /	and interests can get together online. Explain what it means to 'know someone' online and why this	why they might do this. Describe strategies for safe and fun experiences in a range of online social	Explain that there are some people they communicate with online who may want to do them or their friends harm.	Know and give examples of how to get help, both on and offline. Explain the importance
	Explain why things one person finds funny or sad online may not always be seen in the same way by others.	country). Explain who they should ask before sharing things about themselves or others online.	might be different from knowing someone offline. Explain what is meant by 'trusting someone	environments (e.g. livestreaming, gaming platforms). Give examples of how to be respectful to	Recognise that this is not their fault. Describe some of the ways people may be	of asking until they get the help needed. Explain how sharing something online may

Recognise that information can stay online and could be copied.

Describe what information they should not put online without asking a trusted adult first.

Describe how to behave online in ways that do not upset others and can give examples.

Give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching.

Know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke.

Know how to get help from a trusted adult if they see content that makes them feel sad, uncomfortable, worried or frightened.

Explain rules to keep themselves safe when using technology both in and beyond the home.

Explain that passwords are used to protect information, accounts and devices.

Recognise more detailed examples of information that is personal to someone (e.g where someone lives and goes to school, family names).

Explain why it is important to always ask a trusted adult before sharing any personal information

Describe different ways to ask for, give, or deny their permission online and can identify who can help them if they are not sure.

Explain why they have a right to say 'no' or 'I will have to ask someone'.

Explain who can help them if they feel under pressure to agree to something they are unsure about or don't want to do.

Identify who can help them if something happens online without their consent.

Explain how it may make others feel if they do not ask their permission or ignore their answers before sharing something about them online.

Explain why they should always ask a trusted adult before clicking 'yes', 'agree' or 'accept' online

Explain how information put online about someone can last for a long time.

Describe how anyone's online information could be seen by others.

online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with.

Explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried.

Explain how someone's feelings can be hurt by what is said or written online.

Explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos.

Explain how to search for information about others online.

Give examples of what anyone may or may not be willing to share about themselves online.

Explain the need to be careful before sharing anything personal.

others online and describe how to recognise healthy and unhealthy online behaviours.

Explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.

Describe how to find out information about others by searching online.

Explain ways that some of the information about anyone online could have been created, copied or shared by others.

Recognise when someone is upset, hurt or angry online.

Describe ways people can be bullied through a range of media (e.g. image, video, text, chat).

Explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation).

Analyse information to make a judgement

involved in online communities and describe how they might collaborate constructively with others and make positive contributions. (e.g. gaming communities or social media groups).

Explain how someone can get help if they are having problems and identify when to tell a trusted adult.

Demonstrate how to support others (including those who are having difficulties) online.

Search for information about an individual online and summarise the information found.

Describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect.

Recognise online bullying can be different to bullying in the physical world and can describe some of those differences.

Describe how what one person perceives as playful joking and teasing (including

have an impact either positively or negatively. Describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.

Describe how things shared privately online can have unintended consequences for others. e.g. screengrabs.

Explain that taking or sharing inappropriate images of someone (e.g. embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this.

Explain the ways in which anyone can develop a positive online reputation.

Explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity.

Describe how to capture bullying content as evidence (e.g screengrab, URL, profile) to

online, belonging to themselves Know who to talk to if Explain who someone about probable 'banter') might be share with others who experienced by others or others. something has been put can ask if they are accuracy and they can help them. **Explain why work they create** online without consent unsure about putting understand why it is as bullying. **Explain how someone** using technology belongs to or if it is incorrect. something online. important to make their would report online them. own decisions regarding Explain how anyone can bullying in different Describe appropriate Explain what bullying is, content and that their get help if they are contexts. Say why it belongs to them (e.g. 'I how people may bully ways to behave towards decisions are respected being bullied online and designed it' or 'I filmed it"). others and how bullying other people online and by others. identify when to tell a **Explain how search** can make someone feel. why this is important. trusted adult. engines work and how Save work under a suitable title Describe how to search results are selected and or name so that others know it **Explain why anyone** Give examples of how for information within a ranked. Identify a range of ways belongs to them (e.g. filename, who experiences bullying behaviour wide group of to report concerns and name on content). bullying is not to blame. could appear online and technologies and make access support both in Explain how to use how someone can get a judgement about the school and at home search technologies Understand that work created by probable accuracy (e.g. Talk about how anyone support. about online bullying. effectively. others does not belong to them experiencing bullying social media, image even if they save a copy. sites, video sites). **Explain how to block Describe how some** can get help. **Demonstrate how to** use key phrases in abusive users. online information can -Use technology safely and Use simple keywords in search engines to gather Describe some of the be opinion and can offer respectfully, keeping personal search engines. accurate information methods used to Describe the helpline examples. information private; identify online. services which can help encourage people to where to go for help and support **Demonstrate how to** buy things online (e.g. people experiencing **Explain how and why** when they have concerns about navigate a simple **Explain how the** advertising offers; inbullying, and how to some people may content or contact on the internet webpage to get to internet can be used to app purchases, pop-ups) access them (e.g. present 'opinions' as or other online technologies. information they need sell and buy things. and can recognise some Childline or The Mix). 'facts'; why the (e.g. home, forward, of these when they popularity of an opinion back buttons: links, tabs **Explain the difference** appear online. Explain the benefits and or the personalities of between a 'belief', an and sections). limitations of using those promoting it does 'opinion' and a 'fact. **Explain** why lots of different types of search not necessarily make it **Explain what voice** people sharing the same technologies e.g. voicetrue, fair or perhaps and can give examples activation search activated searching is of how and where they opinions or beliefs even legal. and how it might be might be shared online, online do not make engine. used, and know it is not e.g. in videos, memes, those opinions or Define the terms a real person (e.g. posts, news stories etc. beliefs true. **Explain how some** 'influence'. Alexa, Google Now, technology can limit the 'manipulation' and Siri). **Explain that technology** information they are 'persuasion' and explain Explain that not all opinions shared may be can be designed to act presented with. how someone might **Explain the difference** accepted as true or fair like or impersonate encounter these online between things that are by others (e.g. monsters living things (e.g. bots) Explain what is meant (e.g. advertising and 'ad imaginary, 'made up' or under the bed). and describe what the by 'being sceptical' and targeting' and targeting 'make believe' and benefits and the risks give examples of when for fake news). things that are 'true' or Describe and might be. and why it is important

demonstrate how they

trusted adult if they see

can get help from a

content that makes

them feel sad,

to be 'sceptical'.

and explain how to

make choices about

Evaluate digital content

Explain what is meant

by fake news e.g. why

stories or alter

some people will create

Understand the concept of persuasive design

and how it can be used

to influences peoples'

choices.

'real'

Explain why some

information they find

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online may not be real or true.
Explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment.

Say how those rules / guides can help anyone accessing online technologies.

Explain how passwords can be used to protect information, accounts and devices.

Explain and give examples of what is meant by 'private' and 'keeping things private'.

Describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).

Explain how some people may have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).

Recognise that content on the internet may belong to other people.

uncomfortable, worried or frightened.
Explain why spending too much time using technology can sometimes have a negative impact on anyone and give some examples of both positive and negative activities where it is easy to spend a lot of time engaged.

Explain why some online activities have age restrictions, why it is important to follow them and know who they can talk to if others pressure them to watch or do something online that makes them feel uncomfortable (e.g. age restricted gaming or web sites).

Describe simple strategies for creating and keeping passwords private.

Give reasons why someone should only share information with people they choose to and can trust.

Explain that if they are not sure or feel pressured then they should tell a trusted adult.

Describe how connected devices can collect and share

photographs and put them online to pretend something is true when it isn't. Explain how using technology can be a distraction from other things, in both a positive and negative way.

Identify times or situations when someone may need to limit the amount of time they use technology e.g.

Suggest strategies to help with limiting this time.

Describe strategies for keeping personal information private, depending on context.

Explain that internet use is never fully private and is monitored, e.g. adult supervision.

Describe how some online services may seek consent to store information about them and know how to respond appropriately and who they can ask if they are not sure.

Know what the digital age of consent is and the impact this has on online services asking for consent.

what is trustworthy e.g. differentiating between adverts and search results.

Explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence.

Identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads.

Describe ways of identifying when online content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers).

Explain what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting 'stereotypes' may influence how people think about others.

Describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.

Explain what is meant by a 'hoax'.

Demonstrate how to analyse and evaluate the validity of 'facts' and information and explain why using these strategies are important.

Explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this.

Describe the difference between online misinformation and disinformation.

Explain why information that is on a large number of sites may still be inaccurate or untrue and assess how this might happen (e.g. the sharing of misinformation or disinformation).

Identify, flag and report inappropriate content.

Describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose.

Recognise and discuss the pressures that technology can place on someone and how /

Describe why other people's work belongs to them.	anyone's information with others. Explain why copying	When searching on the internet for content to use, they can explain	Explain why someone would need to think	when they could manage this.
-Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	someone else's work from the internet without permission isn't fair and can explain what problems this might cause. -Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptabl e behaviour; identify a	why they need to consider who owns it and whether they have the right to reuse it. Give some simple examples of content which they must not use without permission from the owner, e.g. videos, music, images. -Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content	carefully before they share. Describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. Describe some strategies, tips or advice to promote health and wellbeing with regards to technology. Recognise the benefits and risks of accessing	Recognise features of persuasive design and how they are used to keep users engaged (current and future use). Assess and action different strategies to limit the impact of technology on health (e.g. night-shift mode, regular breaks, correct posture, sleep, diet and exercise). Describe effective ways people can manage
	range of ways to report concerns about content and contact	-Use technology safely, respectfully and responsibly; recognise acceptable/unacceptabl e behaviour; identify a range of ways to report concerns about content and contact	information about health and well-being online and how we should balance this with talking to trusted adults and professionals. Explain how and why some apps and games may request or take payment for additional content (e.g. in-app purchases, lootboxes) and explain the importance of seeking permission from a trusted adult before	passwords (e.g. storing them securely or saving them in the browser). Explain what to do if a password is shared, lost or stolen. Describe how and why people should keep their software and apps up to date, e.g. auto updates. Describe simple ways to increase privacy on apps and services that
			purchasing. Explain what a strong password is and demonstrate how to create one. Explain how many free apps or services may	provide privacy settings. Describe ways in which some online content targets people to gain money or information illegally and describe strategies to help them

		read and share priva	
		information (e.g.	(e.g. scams, phishing).
		friends, contacts, like	
		images, videos, voice	e, Know that online
		messages, geolocation	on) services have terms and
		with others.	conditions that govern
			their use.
		Explain what app	
		permissions are and	can Demonstrate the use of
		give some examples.	
			access online content
		Assess and justify wh	nen which can be reused by
		it is acceptable to us	
		the work of others.	
			Demonstrate how to
		Give examples of	make references to and
		content that is	acknowledge sources
		permitted to be reus	<u> </u>
		and know how this	internet.
		content can be found	
		online.	-Use search
		- Chimics	technologies effectively,
		-Use search	appreciate how results
		technologies effectiv	
		appreciate how resu	
		are selected and	discerning in evaluating
		ranked, and be	digital content
		discerning in evaluat	_
		digital content	respectfully and
		-Use technology safe	
		respectfully and	acceptable/unacceptabl
		respectfully and responsibly; recognis	
		acceptable/unaccept	
		e behaviour; identify	
		range of ways to rep	
1		concerns about cont	ent
1		and contact	

Vocabulary – What key vocabulary will our children need? When will it be introduced?
Vocabulary will be re-visited throughout all year groups as it is so important to communicate concepts

EYFS	Year 1/2A	Year 1/2B	Year 3/4A	Year 3/4B	Year 5/6A	Year 5/6B
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Key Computing Vocabulary:

computer, laptop, tablet, device, hardware, software, input, output, keyboard, mouse, mouse mat, touchpad, monitor, printer, scanner, speakers, network point, interactive whiteboard, data projector, wireless internet connector, Central Processing Unit (CPU), microphone, 3D printer, headphones, tools, predict, explore, explain, drag, drop, resize, reposition, word processing, touch type, dictation, portrait, landscape. Animation, images, text, software, animate, PowerPoint, motion path, custom path, text box, preview

animate, electronic book, PowerPoint, transition, audio, record, text box, search engine, spreadsheet device, input, output, audio, stop, play, record, media file, PowerPoint, sound effect, QR code, online voice recorder

algorithm, decomposition, photograph, instruction, order, decomposition, debugging, clear, precise, unambiguous, written, verbal, pictorial, logical reasoning, precise, unambiguous, program, loops, blocks, repetition

pixel, Pointillism, dots, Seurat, program, tool, size, colour, Mondrian, fill, straight lines, primary colours, red, yellow, blue, Picasso, Cubism, shapes, manipulate, rotate, shade

desktop, smart phone, motherboard, Random Access Memory (RAM), Read-Only Memory (ROM), save, save as, data corruption, touch typing, edit, insert, font style, font size, font colour, resize, modify, alignment, wrapping, copyright, Pixabay, Creative Commons, image, text, bold, italics, underline, hyperlink, keyboard shortcuts.

transparent backgrounds, digital devices presentation, animation, images, text, entrance effects, exit effects, motion paths, insert, audio, blank slides, action buttons, hyperlink, copyright free images, slide transitions, multimedia elements devices, input, output, podcast, quick record, rerecording, tracks, editing, creating effects, Audacity, play, stop, record, pause, skip to start, skip to end, waveform, Audio Track, slider, QR code, online voice recorder.

programming environments, Scratch environment, program, default sprite, backdrop, stage, motion blocks, sequence, animate, switching costumes, debugging, instructions, Blocks palette, Code area, repetition, cursor control keys (arrows), sprite, duplicate, repetition, pen down, selection, debug

External device, Malware, virus infection, shutdown, physical hardware issues, source, bibliography, citation.

presentation, insert, animation, images, text, entrance effects, exit effects, motion paths, audio, hyperlinks, action buttons, non-linear, slide transitions, video, multimedia elements, structure, layout video, Microsoft Photos, recording, reproducing, broadcasting, moving visual images, project library, cards, storyboard, scrubber, titles, captions, credits, 3D effects, music, narration

devices, input, output, podcast, quick record, rerecording, tracks, editing, creating effects, Audacity, play, stop, record, pause, skip to start, skip to end, waveform, Audio Track, slider Selection, conditional statement, condition, outcome/action, variable