

A progression in Computing from Reception to Year 7

EYFS

Key Stage one

Lower Key Stage two

Upper Key Stage two

Key Stage three

<p>Information Technology Word Processing</p>	<ul style="list-style-type: none"> • I know how to play on a touch screen game and use computers/keyboards/mouse in role play • I know how to type letters with increasing confidence using a keyboard and tablet. • I know how to dictate short, clear sentences into a digital device. 	<ul style="list-style-type: none"> • I know how to confidently type words quickly and correctly on a digital device. • I know how to use the space bar to make space and delete to delete letters/ words • I know how to make a new line using enter/return • I know how to dictate into a digital device more accurately and with punctuation. • I know how to use the space bar only once between words and use touch to navigate to words letter to edit • I know how to copy and paste images and text • I know how to use caps locks for capital letters. • I know how to add images alongside text in a word-processed 	<ul style="list-style-type: none"> • I know how to use index fingers on keyboard home keys (f/j), use left fingers for a/ s/d/f/g, and use right fingers for h/j/k/l • I know how to edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • I know how to use cut, copy and paste to quickly duplicate and organise text. • I know how to combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. • I know how to confidently and regularly use text shortcuts such as cut, copy and paste and delete to 	<ul style="list-style-type: none"> • I know how to apply other useful effects to my documents such as hyperlinks. • I know how to import sounds to accompany and enhance the text in my document. • I know how to organise and reorganise text on screen to suit a purpose • I know how to confidently choose the best application to demonstrate my learning. • I know how to format text to suit a purpose. • I know how to publish my documents online regularly and discuss the audience and purpose of my content. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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		<p>document.</p> <ul style="list-style-type: none">• I know how to dictate longer passages into a digital device with accurate punctuation.	<p>organise text</p> <ul style="list-style-type: none">• I know how to use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology		
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<p>Information Technology Data Handling</p>	<ul style="list-style-type: none"> • I know how to identify a chart. • I know how to sort physical objects, take a picture and discuss what I have done. • I know how to present simple data on a digital device. 	<ul style="list-style-type: none"> • I know how to sort images or text into two or more categories on a digital device. • I know how to collect data on a topic. • I know how to create a tally chart and pictogram. • I know how to record myself explaining what I have done and what it shows me. • I know how to sort digital objects into a range of charts such as Venn diagrams, Carroll diagrams and bar charts using different apps and software. • I know how to orally record myself explaining what the data shows me. • I know how to create a branching database using questions 	<ul style="list-style-type: none"> • I know how to create my own sorting diagram and complete a data handling activity with it using images and text. • I know how to start to input simple data into a spreadsheet. • I know how to create a feelings chart exploring a story or character's feelings. • I know how to create my own online multiple-choice questionnaire. • I know how to input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. • I understand how data is collected. 	<ul style="list-style-type: none"> • I know how to create and publish my own online questionnaire and analyse the results. • I know how to use simple formulae to solve calculations including =sum and other statistical functions • I know how to edit and format difference cells in a spreadsheet. • I know how to write spreadsheet formula to solve more challenging maths problems. • I know how to create and publish my own online quiz with a range of media (images and video) 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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<p>Information Technology Presentation, Web Design, and eBook Creation</p>	<ul style="list-style-type: none"> • I know how to record my voice over a picture. • I know how to create a simple digital collage. • I know how to move and resize images with my fingers or mouse. 	<ul style="list-style-type: none"> • I know how to add labels to an image • I know how to order images to create a simple storyboard. • I know how to create a simple spider diagram. • I know how to sequence a series of pictures to explain my understanding of a topic. • I know how to add voice labels to an image. • I know how to add a voice recording to a storyboard. • I know how to add speech bubbles to an image to show what a character thinks. • I know how to import images to a project from the web and camera roll 	<ul style="list-style-type: none"> • I know how to create an interactive comic with sounds, formatted text and video. • I know how to annotate an image with videos • I know how to create a simple web page. • I know how to design a simple app prototype. • I know how to create a simple digital timeline/mindmap • I know how to create an interactive quiz eBook introducing hyperlinks. • I know how to create an eBook with text, images and sound. • I know how to create a presentation demonstrating my understanding with a range of media. • I know how to create a digital timeline/mindmap and include different media - sound and video. 	<ul style="list-style-type: none"> • I know how to collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 • I know how to create and export an interactive presentation including a variety of media, animations, transitions and other effects. • I know how to create an interactive guide to a image by embedding digital content and publishing it online. • I know how to create a webpage and embed video. • I know how to create a web site which includes a variety of media. • I know how to design an app prototype that links multimedia pages together with hyperlinks. • I know how to choose applications to communicate to a specific audience. • I know how to evaluate my own content and consider ways to improvements. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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<p>Information Technology Animation</p>	<ul style="list-style-type: none"> • I know how to animate a simple image to speak in role • I know how to create a simple animation to tell a story including more than one character. 	<ul style="list-style-type: none"> • I know how to add filters and stickers to enhance an animation of a character. • I know how to create an animation to tell a story with more than one scene. • I know how to add my own pictures to my story animation. • I know how to create multiple animations of an image and edit these together. • I know how to create a simple stop motion animation. • I know how to explain how an animation/flip book works 	<ul style="list-style-type: none"> • I know how to create animations of faces to speak in role with more life-like realistic outcomes. • I know how to improve stop motion animation clips with techniques like onion skinning. • I know how to use animation tools in presenting software to create simple animations. • I know how to take multiple animations of a character I have created and edit them together for a longer video. • I know how to use software to create a 3D animated story. • I know how to use line draw tool to create animations. 	<ul style="list-style-type: none"> • I know how to record animations of different characters and edit them together to create an interview. • I know how to add green screen effects to a stop motion animation. • I know how to create flip book animation using digital drawings and export as a Gif or video • I know how to mix animations and videos recordings of myself to create video interviews. • I know how to plan, script and create a 3D animation to explain a concept or tell a story. • I know how to choose and create different types of animations to best explain my learning. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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Information Technology Video Creation	<ul style="list-style-type: none"> • I know the difference between a photography and video. • I know how to record a short film using the camera • I know how to record and play a film • I know how to watch films back 	<ul style="list-style-type: none"> • I know how to record a film using the camera app. • I know how to select images and record a voiceover. • I know how to highlight and zoom into images as I record. • I know how to write and record a script using a teleprompter tool. • I know how to use tools to add effects to a video • I know how to begin to use green screen techniques with support 	<ul style="list-style-type: none"> • I know how to sequence clips of mixed media in a timeline and record a voiceover • I know how to trim and cut film clips and add titles and transitions • I know how to independently create a green screen clip. • I know how to create my own movie trailer. • I know how to add music and sound effects to my films • I know how to add animated titles and transitions • I know how to add simple subtitles to a video clip. • I know how to use confidently use green screen adding animated backgrounds. 	<ul style="list-style-type: none"> • I know how to use cutaway and split screen tools in iMovie. • I know how to evaluate and improve the best video tools to best explain my understanding. • I know how to further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool. • I know how to use the green screen masking tool with more than one character. • I know how to use picture in picture tools in iMovie. • I know how to add animated subtitles to my film to further enhance my creation. • I know how to create videos using a range of media - green screen, animations, film and image. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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<p>Information Technology Photography and Digital Art</p>	<ul style="list-style-type: none"> • I know how to take a photograph • I know how to take a photograph and use it in an app • I know how to use a painting app and explore the paint and brush tools 	<ul style="list-style-type: none"> • I know how to edit a photo with simple tools • I know how to use a paint/drawing app to create a digital image • I know how to begin to cut out an image to layer on another image. • I know how to edit a photo (crop, filters, mark up etc) • I know how to select and use tools to create digital imagery - controlling the pen and using the fill tool • I know how to cut images with accuracy to layer on other images. 	<ul style="list-style-type: none"> • I know how to confidently take and manipulate photos • I know how to create a digital image using a range of tools, pens, brushes and effects • I know how to create transparent images with Instant Alpha • I know how to enhance digital images and photographs using crop, brightness, contrast & resize • I know how to manipulate shapes to create digital art. • I know how to draw a series of images and export as an animated GIF 	<ul style="list-style-type: none"> • I know how to make a digital photo using camera settings • I know how to enhance digital photos and images using crop, brightness and resize tools • I know how to link and explain how to photoshop images and how this is used in the media • I know how to edit a picture to remove items, add backgrounds, merge 2 photos • I know how to evaluate and discuss images explaining effects and filters that have been used to enhance the media. • I know how to use a 3D drawing app to create a realistic representation of world objects 	<p>create, reuse, revise and repurpose digital artefacts for a given audience, with attention to trustworthiness, design and usability</p>
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Information Technology Augmented Reality and Virtual Reality	<ul style="list-style-type: none"> • I know how to scan a QR code. • I know how to explore a 360 image. • I know how to talk about AR objects in my class 	<ul style="list-style-type: none"> • I know how to explore an interactive 360 image. • I know how to scan a trigger image to begin a AR experience. • I know how to pretend to interact with AR objects. • I know how to draw my own 360 image and explore it in VR. • I know how to bring objects into my surroundings using Augmented Reality. • I know how to create my own QR code. 	<ul style="list-style-type: none"> • I know how to create my own digital 360 image and explore it in VR • I know how to create my own images and bring it into my surroundings • I know how to create my own 360 video. • I know how to use the camera to create a 360 image. • I know how to add multiple objects into my surroundings through AR to explain a concept. 	<ul style="list-style-type: none"> • I know how to create an animated object and bring it into my surroundings through AR • I know how to create an AR experience using objects I have created to explain a concept. • I know how to create an interactive VR experience. • I know how to create an interactive poster using AR • I know how to explain how VR and AR works. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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Information Technology Sound	<ul style="list-style-type: none"> • I know how to record sounds with different resources • I know how to find ways to change your voice (tube, tin can, shouting to create an echo) • I know how to record sounds/voices in storytelling and explanations 	<ul style="list-style-type: none"> • I know how to create a sequence of sounds (instruments, apps/software) • I know how to explore short and long sounds. • I know how to record my voice and add different effects. • I know how to create a musical composition using software • I know how to record my own sound effects. • I know how to record my voice over a compositions to perform a song. 	<ul style="list-style-type: none"> • I know how to create and edit purposeful compositions using music software to create mood or a certain style • I know how to experiment with live loops to create a song. • I know how to edit sound effects for a purpose. • I know how to create a simple four chord song following the correct rhythm. • I know how to record a radio broadcast or audiobook. 	<ul style="list-style-type: none"> • I know how to add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. • I know how to create a remix of a popular song. • I know how to add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) • I know how to compose a soundtrack that can be added to a film project. 	<p>undertake creative projects that involve selecting, using, and combining multiple applications, preferably across a range of devices, to achieve challenging goals, including collecting and analysing data and meeting the needs of known users</p>
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<p>Computer Science Computational Thinking</p>	<ul style="list-style-type: none"> • I begin to understand an algorithm is a sequence of instructions or set of rules to get things done. (Algorithms) • I can follow a simple algorithm by responding to oral instructions. (Algorithms) • I can begin to make my own simple algorithms by sequencing actions. (Algorithms) • I can start to explain my thought process and justify my decisions. (Logical reasoning) • I can explain what is the same and what is different (Pattern) 	<ul style="list-style-type: none"> • I understand what algorithms are • I know how to write simple algorithms • I understand the sequence of algorithms is important • I know how to debug simple algorithms • I know how to write algorithms for everyday tasks • I know how to use logical reasoning to predict the outcome of algorithms • I understand decomposition is breaking objects/processes down • I know how to debug algorithms 	<ul style="list-style-type: none"> • I know how to create algorithms for my programming projects • I know how to decompose projects (such as an animation) into steps to create an algorithm • I understand abstraction is focusing on important information • I know how to identify patterns in an algorithm • I know how to use abstraction to focus on what's important in my design • I know how to write more precise algorithms for use when programming • I know how to use simple selection and repetition in algorithms • I know how to use logical reasoning to detect and correct errors in programs 	<ul style="list-style-type: none"> • I know how to solve problems by decomposing them into smaller parts • I know how to use selection in algorithms • I know how to use logical reasoning to explain how a variety of algorithms work • I know how to evaluate the effectiveness of algorithms • I know how to decompose a design or code to focus on specific parts • I know how to use abstraction to hide complexity in my design or code • I know how to recognise and make use of patterns in my design and code • I know how to critically evaluate my work and suggest improvements 	
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<p>Computer Science Coding and Programming</p>	<ul style="list-style-type: none"> • I can learn how digital toys and apps work through exploration (Tinkering) • I can input more than one command into a programmable toy or simple app • I can input a sequence of commands into a programmable toy or simple app • I fix things through trial and error (Debugging) • I can fix things and explain my approach (Debugging) 	<ul style="list-style-type: none"> • I know how to create a simple program on a digital device e.g. Bee Bot or tablet • I know how to use sequence in programs • I know how to locate and fix bugs in my program • I understand programs follow precise instructions • I know how to create programs using different digital devices E.g. Bee Bot or ScratchJr on a tablet • I know how to debug programs of increasing complexity • I know how to use logical reasoning to predict the outcome of simple programs 	<ul style="list-style-type: none"> • I know how to design a program • I know how to create a program using a design • I know how to create a sequence of code • I know how to work with a variety of inputs and outputs • I know how to evaluate my program • I know how to use repetition in programs • I know how to use simple selection in programs • I know how to work with a variety of inputs and outputs • I know how to use logical reasoning to systematically detect and correct errors in programs 	<ul style="list-style-type: none"> • I know how to create programs by decomposing them into smaller parts • I know how to use a variety of selection commands in programs • I know how to use conditions in repetition commands • I know how to work with variables • I know how to create programs that control or simulate physical systems • I know how to evaluate my work and identify errors • I know how to use a range of sequence, selection and repetition commands to implement my design • I know how to identify the need for, and work with, variables • I know how to create procedures to hide complexity in programs • I know how to critically evaluate my work and suggest improvements 	<p>design, use and evaluate computational abstractions that model the state and behaviour of real-world problems and physical systems understand several key algorithms that reflect computational thinking [for example, ones for sorting and searching]; use logical reasoning to compare the utility of alternative algorithms for the same problem use 2 or more programming languages, at least one of which is textual, to solve a variety of computational problems; make appropriate use of data structures [for example, lists, tables or arrays]; design and develop modular programs that use procedures or functions understand simple Boolean logic [for example, AND, OR and NOT] and some of its</p>
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					<p>uses in circuits and programming; understand how numbers can be represented in binary, and be able to carry out simple operations on binary numbers [for example, binary addition, and conversion between binary and decimal]</p>
<p>Computer Science Computer Networks (KS2)</p>			<ul style="list-style-type: none"> • I understand that the computers in a school are connected together in a network • I understand why computers are networked • I understand that servers on the Internet are located across the planet • I understand the difference between the Internet and WWW • I understand how web pages are viewed across the internet 	<ul style="list-style-type: none"> • I know how to use search technologies effectively • I understand that web spiders index the web for search engines • I appreciate how pages are ranked in a search engine • I understand what HTML is and recognize HTML tags • I know a range of HTML tags and can remix a web page • I know how to create a webpage using HTML 	<p>understand the hardware and software components that make up computer systems, and how they communicate with one another and with other systems</p> <p>understand how instructions are stored and executed within a computer system; understand how data of various types (including text, sounds and pictures) can be represented and manipulated digitally, in the form of binary digits</p>

<p>Digital Literacy E-Safety Internet safety and harms</p>	<p>where and how to report concerns and get support with issues online</p>	<ul style="list-style-type: none"> • it is common for people to experience mental ill health. For many people who do, the problems can be resolved if the right support is made available, especially if accessed early enough • that for most people the internet is an integral part of life and has many benefits. • about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing. • how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private. • where and how to report concerns and get support with issues online. 	<ul style="list-style-type: none"> • about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing. • how to consider the effect of their online actions on others and know how to recognise and display respectful behaviour online and the importance of keeping personal information private. • why social media, some computer games and online gaming, for example, are age restricted. • that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health. 	<ul style="list-style-type: none"> • about the benefits of rationing time spent online, the risks of excessive time spent on electronic devices and the impact of positive and negative content online on their own and others' mental and physical wellbeing. • that the internet can also be a negative place where online abuse, trolling, bullying and harassment can take place, which can have a negative impact on mental health. • how to be a discerning consumer of information online including understanding that information, including that from search engines, is ranked, selected and targeted. • where and how to report concerns and get support with issues online. 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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<p>Self-Image and Identity</p>	<ul style="list-style-type: none"> I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. I can explain how this could be either in real life or online. 	<ul style="list-style-type: none"> I can recognise that there may be people online who could make me feel sad, embarrassed or upset. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust. I can explain how other people may look and act differently online and offline. I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help 	<ul style="list-style-type: none"> I can explain what is meant by the term 'identity'. I can explain how people can represent themselves in different ways online I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why I can explain how my online identity can be different to my offline identity. I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. 	<ul style="list-style-type: none"> I can explain how identity online can be copied, modified or altered. I can demonstrate responsible choices about my online identity, depending on context. I can 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. I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed. 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>

<p>Digital Literacy E-Safety Online Relationships (Also see PHSE/RSE Curriculum)</p>	<ul style="list-style-type: none"> • I can recognise some ways in which the internet can be used to communicate. • I can give examples of how I (might) use technology to communicate with people I know. 	<ul style="list-style-type: none"> • I can give examples of when I should ask permission to do something online and explain why this is important • I can use the internet with adult support to communicate with people I know (e.g. video call apps or services). • I can explain why it is important to be considerate and kind to people online and to respect their choices. • I can explain why things one person finds funny or sad online may not always be seen in the same way by others. • I can give examples of how someone might use technology to communicate with 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 / country). 	<ul style="list-style-type: none"> • I can describe ways people who have similar likes and interests can get together online. • I can explain what it means to 'know someone' online and why this might be different from knowing someone offline. • I can explain what is meant by 'trusting someone 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. • I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. • I can explain how someone's feelings can be hurt by what is said or written online. • I can explain the importance of giving and gaining permission before sharing things 	<ul style="list-style-type: none"> • I can give examples of technology specific forms of communication (e.g. emojis, memes and GIFs). • I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault. • I can describe some of the ways people may be 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). • I can explain how someone can get help if they are having problems and identify when to tell a trusted adult. • I can demonstrate how to support others (including those who are having difficulties) online. • I can explain how sharing something online may have an impact either positively or negatively. 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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		<ul style="list-style-type: none"> • I can explain who I should ask before sharing things about myself or others online. • I can describe different ways to ask for, give, or deny my permission online and can identify who can help me if I am not sure. • I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to something I am unsure about or don't want to do. • I can identify who can help me if something happens online without my consent. • I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. • I can explain why I should always ask 	<p>online; how the principles of sharing online is the same as sharing offline e.g. sharing images and videos.</p> <ul style="list-style-type: none"> • I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms). • I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. • I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs. 	<ul style="list-style-type: none"> • I can 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. • I can describe how things shared privately online can have unintended consequences for others. e.g. screen-grabs. • I can 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. 	
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		a trusted adult before clicking 'yes', 'agree' or 'accept' online			
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<p>Online Reputation</p>	<ul style="list-style-type: none"> I can identify ways that I can put information on the internet. 	<ul style="list-style-type: none"> I can recognise that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first I can explain how information put online about someone can last for a long time. I can describe how anyone's online information could be seen by others. I know who to talk to if something has been put online without consent or if it is incorrect. 	<ul style="list-style-type: none"> I can explain how to search for information about others online. I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others. 	<ul style="list-style-type: none"> I can search for information about an individual online and summarise the information found. I can describe ways that information about anyone online can be used by others to make judgments about an individual and why these may be incorrect. I can explain the ways in which anyone can develop a positive online reputation. I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including degrees of anonymity. 	<ul style="list-style-type: none"> their rights, responsibilities and opportunities online, including that the same expectations of behaviour apply in all contexts, including online. about online risks, including that any material someone provides to another has the potential to be shared online and the difficulty of removing potentially compromising material placed online. not to provide material to others that they would not want shared further and not to share personal material which is sent to them. what to do and where to get support to report material or manage issues online. the impact of viewing harmful content. that specifically sexually explicit
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					<p>material e.g., pornography presents a distorted picture of sexual behaviours, can damage the way people see themselves in relation to others and negatively affect how they behave towards sexual partners.</p> <ul style="list-style-type: none">• that sharing and viewing indecent images of children (including those created by children) is a criminal offence which carries severe penalties including jail.• how information and data is generated, collected, shared and used online.
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<p>Digital Literacy E-Safety Online Bullying</p>	<ul style="list-style-type: none"> • I can describe ways that some people can be unkind online. • I can offer examples of how this can make others feel. 	<ul style="list-style-type: none"> • I can describe how to behave online in ways that do not upset others and can give examples. • I can explain what bullying is, how people may bully others and how bullying can make someone feel. • I can explain why anyone who experiences bullying is not to blame • I can talk about how anyone experiencing bullying can get help. 	<ul style="list-style-type: none"> • I can describe appropriate ways to behave towards other people online and why this is important. • I can give examples of how bullying behaviour could appear online and how someone can get support. • I can recognise when someone is upset, hurt or angry online. • I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat). • I can 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). 	<ul style="list-style-type: none"> • I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences. • I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. • I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult • I can identify a range of ways to report concerns and access support both in school and at home about online bullying • I can explain how to block abusive users. • I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix). • I can describe how to capture bullying content as evidence 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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				<p>(e.g screen-grab, URL, profile) to share with others who can help me.</p> <ul style="list-style-type: none">• I can explain how someone would report online bullying in different contexts.	
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<p>Digital Literacy E-Safety Managing Online Information</p>	<ul style="list-style-type: none"> I can talk about how to use the internet as a way of finding information online. I can identify devices I could use to access information on the internet. 	<ul style="list-style-type: none"> I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching). <ul style="list-style-type: none"> I 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. I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened I can use simple keywords in search engines. I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections). I can explain what voice activated searching is and how it might be used, and 	<ul style="list-style-type: none"> I can demonstrate how to use key phrases in search engines to gather accurate information online. <ul style="list-style-type: none"> I can explain what autocomplete is and how to choose the best suggestion. I can explain how the internet can be used to sell and buy things. I can explain the difference between a 'belief', an 'opinion' and a 'fact. and can give examples of how and where they might be shared online, e.g. in videos, memes, posts, news stories etc. I can explain that not all opinions shared may be accepted as true or fair by others (e.g. monsters under the bed). I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable worried or frightened. I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my 	<ul style="list-style-type: none"> I can explain the benefits and limitations of using different types of search technologies e.g. voice-activation search engine. I can explain how some technology can limit the information I aim presented with e.g. voice-activated searching giving one result. <ul style="list-style-type: none"> I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'. I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results. I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence I can identify ways the internet can draw us to information for different agendas, e.g. website notifications, pop-ups, targeted ads. I can describe ways of identifying when online 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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		<p>know it is not a real person (e.g. Alexa, Google Now, Siri).</p> <ul style="list-style-type: none"> • I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. • I can explain why some information I find online may not be real or true 	<p>decisions are respected by others.</p> <ul style="list-style-type: none"> • I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g. social media, image sites, video sites). • I can describe some of the methods used to encourage people to buy things online (e.g. advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. • I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. • I can explain that technology can be designed to act like or impersonate living things (e.g. bots) and describe what the benefits and the risks might be. • I can explain what is meant by fake news e.g. why some people will create stories or alter photographs and put them online to 	<p>content has been commercially sponsored or boosted, (e.g. by commercial companies or by vloggers, content creators, influencers).</p> <ul style="list-style-type: none"> • I can 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. • I can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful. • I can explain what is meant by a 'hoax'. I can explain why someone would need to think carefully before they share. • I can explain how search engines work and how results are selected and ranked. • I can explain how to use search technologies effectively. • I can describe how some online information 	
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			pretend something is true when it isn't.	can be opinion and can offer examples. <ul style="list-style-type: none">• I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true, fair or perhaps even legal.• I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g. advertising and 'ad targeting' and targeting for fake news).• I understand the concept of persuasive design and how it can be used to influence peoples' choices.• I can demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important.• I can explain how companies and news providers target people with online news stories they are	
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				<p>more likely to engage with and how to recognise this.</p> <ul style="list-style-type: none">• I can describe the difference between online misinformation and disinformation.• I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation).• I can identify, flag and report inappropriate content.	
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<p>Digital Literacy E-Safety Health, Well-being, and Lifestyle</p>	<ul style="list-style-type: none"> I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples of these rules. 	<ul style="list-style-type: none"> I can explain rules to keep myself safe when using technology both in and beyond the home. <ul style="list-style-type: none"> I can explain simple guidance for using technology in different environments and settings e.g. accessing online technologies in public places and the home environment. I can say how those rules / guides can help anyone accessing online technologies. 	<ul style="list-style-type: none"> I can explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos). <ul style="list-style-type: none"> I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g. age restricted gaming or web sites). I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest 	<ul style="list-style-type: none"> I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively. <ul style="list-style-type: none"> I can describe some strategies, tips or advice to promote health and wellbeing with regards to technology. I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to trusted adults and professionals. I can 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 purchasing. I can describe common systems that regulate age-related content (e.g. PEGI, BBFC, parental warnings) and describe their purpose. I recognise and can discuss the pressures that 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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			strategies to help with limiting this time.	technology can place on someone and how / when they could manage this. <ul style="list-style-type: none">• I can recognise features of persuasive design and how they are used to keep users engaged (current and future use).• I can 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).	
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<p>Digital Literacy E-Safety Privacy and Security</p>	<ul style="list-style-type: none"> • I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). • I can describe who would be trustworthy to share this information with; I can explain why they are trusted. 	<ul style="list-style-type: none"> • I can explain that passwords are used to protect information, accounts and devices. • I can recognise more detailed examples of information that is personal to someone (e.g. where someone lives and goes to school, family names). • I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. • I can explain how passwords can be used to protect information, accounts and devices. • I can explain and give examples of what is meant by 'private' and 'keeping things private' • I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords). • I can explain how some people may 	<ul style="list-style-type: none"> • I can describe simple strategies for creating and keeping passwords private. • I can give reasons why someone should only share information with people they choose to and can trust. • I can explain that if they are not sure or feel pressured then they should tell a trusted adult. • I can describe how connected devices can collect and share anyone's information with others. • I can describe strategies for keeping personal information private, depending on context. • I can explain that internet use is never fully private and is monitored, e.g. adult supervision. • I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. • I know what the digital age of consent is and the impact this has on online services asking for consent. 	<ul style="list-style-type: none"> • I can explain what a strong password is and demonstrate how to create one. • I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others. • I can explain what app permissions are and can give some examples. • I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the browser). • I can explain what to do if a password is shared, lost or stolen. • I can describe how and why people should keep their software and apps up to date, e.g. auto updates. • I can describe simple ways to increase privacy on apps and services that provide privacy settings. • I can describe ways in which some online content targets 	<p>understand a range of ways to use technology safely, respectfully, responsibly and securely, including protecting their online identity and privacy; recognise inappropriate content, contact and conduct, and know how to report concerns</p>
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		have devices in their homes connected to the internet and give examples (e.g. lights, fridges, toys, televisions).		people to gain money or information illegally; <ul style="list-style-type: none"> I can describe strategies to help me identify such content (e.g. scams, phishing). I know that online services have terms and conditions that govern their use. 	
Key Vocab: Information Technology Word Processing	Computer, Keyboard, Device, Tablet, Dictate, type	Space Bar, Delete, Return Key, Enter, Mouse, Trackpad, arrow keys, cursor, select, Cut, copy, paste. Caps Lock, Insert, Image, Save, clipboard, editing, header, highlight	Touch type. Edit, format, font, size, borders, shadows, duplicate, organise, undo, redo, autocorrect, clipart Group, crop, source, object, posters, documents, eBooks, scripts, leaflets. CTRL, spell check, thesaurus, record	Import, export, hyperlinks, animate, build in, build out, italics, bold, arrange, bullets, Alignment, application, tabs, toolbar, build order, layout, shift key, PDF, columns, graphics	
Key Vocab: Information Technology Data Handling	Chart, sort, data, count, list	Columns, category, tally chart, pictograms, explain, Venn diagrams, Carroll diagrams, bar charts, database, table	Table, column, row, cell, spreadsheet, graph, Formatting, questionnaire, Active Cell, Autofit, multiple choice, checkbox	Formula bar, Autosum, Autofill, value Range, =, fill, conditional formatting	
Key Vocab: Information Technology Presentation, Web Design, and eBook Creation	Record, image, digital, collage, move, resize, pinch	Labels, order, storyboard, sequence, spider diagram, text box, style Voice labels, import, tag, add to, right click, layout, format	Media, interactive, audio, annotate, background, clip art, prototype, web page, timeline, Animation, design template, effects, multimedia, eBook, ePub, export, hyperlinks	Blog, collaboration, share, slide layout, slide show, transitions, embed, publish, instant alpha Placeholder, dropdown, navigation, homepage, footer, sidebar, HTML, URL, design, application	
Key Vocab: Information Technology Animation	Animation, character, record	Filters, stickers, scene Stop motion, ghosting, timing, cartoon	Frame, framerate, layout, onion skinning, trim, 3D, line draw, build in, build out, exposure, dynamic	Chroma Key, Flipbook, export, GIF, publish, Staging, aspect ratio, computer generated imagery (CGI) angles, overlay, claymation, cut scene	

Key Vocab: Information Technology Video Creation	Photography, video, record, camera roll, play, pause, microphone	Voiceover, highlight, zoom, countdown, playback, delete, pause, rewind, fast forward. Teleprompter, pace, rate, effects, titles, Greenscreen, layer, masking, drag	Sequence, trim, cut, transition, trailer, close-up, action shot, timeline, Clips, media library, import, ken burns, subtitles, crop, overlay, adjust, playback, pan, tilt	Split screen, cutaway, montage, fade, Picture in Picture	
Key Vocab: Information Technology Photography and Digital Art	Photograph, digital, paint, capture	Edit, drawing, cut, layer, mark up, erase, Crop, filters, fill, export, JPEG, zoom, flash, undo	Manipulate, brush size, transparent, instant alpha, PNG, framing, Brightness, contrast, resize, digital shapes, focus, artificial, natural, lighting	Photoshop, landscape, portrait, Exposure	
Key Vocab: Information Technology Augmented Reality and Virtual Reality	Scan, image, 360, digital image	Surroundings, objects, interact, Markers, Augmented Reality, trigger	Field of view, Holograms, Virtual Reality, explore, slide size, Target image, recognition, panoramic	Markup, ARKit and ARCore	
Key Vocab: Information Technology Sound	Record, sound, microphone, echo	Sequence, instruments, short, long, effects, Sound effects, loops	Input, output, selection, mix, Podcast, clipping, crossfade, fade, gain	Channel, feedback, chorus, compose, Compression, reverb, BPM	

Key Vocab: Computer Science Computational Thinking	Instruction, follow, first, next	Algorithm, sequence, order, bug, fix, precise, Decomposition, debug, reason, detail, breakdown, task	Abstraction, information, relevant, pattern, same, different, complex, Logical reasoning, design, algorithmic thinking, selection, repeat	Evaluation, effectiveness, complexity, data, prediction, condition, Generalisation, pattern, reuse, modify, remix, critical	
Key Vocab: Computer Science Coding and Programming	Mouse, touch screen, move, command, device	Digital, program, follow, code, bugs, fix, order, ScratchJr, Precise, logical reasoning, prediction, debug, sequence	Sequence, inputs, outputs, code, design, programming language, Scratch, Repetition, loop, forever loop, count controlled loop, selection, condition, systematic	Data, memory, variables, value, initialisation, control, simulate, physical system, Procedure, abstraction, conditional loop, logic, operator, implement	
Key Vocab: Computer Science Computer Networks (KS2)			Network, server, client, LAN (LocalArea Network), switch, Internet, router, data, web page, submarine cable	Search engine, spiders, index, ranked, ranking algorithm, keyword, HTML (Hypertext Markup Language), opening tag, closing tag, code	

Key Vocab: Digital Literacy E-Safety Education for a Connected World	Online, offline, communicate, internet, information, feelings, rules	Trust, permission, video call, kind, respect, trusted adult, search engines, Google, personal information, password, accounts, Online gaming, sharing, pressure, accept, consent, bullying, home, forward, links, tabs, sections, Siri, untrue, wellbeing, private, AI, comments	Identify, represent, avatar, likes, trusting, uncomfortable, cyberbullying, accurate, autocomplete, belief, opinion, fact, mood, engaged, age restrictions, data, copyright, digital footprint, Interact, livestream, healthy, unhealthy online behaviours, analyse, fake news, in- app purchases, pop-ups, bots, distraction, screen time, geolocation, adware, cookies	Copied, modified, altered, choices, responsible, emojis, memes, social media, perceive, childlike, block, abusive, sceptical, trustworthy, adverts, validity, reliability, scams, disinformation, echo chamber, Inappropriate, stereotypes, gender, screen grabs, boundaries, unintended consequences, inappropriate images, anonymity, digital personality, URL, profile, ad targeting, persuasive design, phishing, terms and conditions, encryption	
Apps: Information Technology Word Processing	Seesaw, Word, Pages Google Docs Pic Collage	Seesaw, Word, Pages Google Docs Pic Collage, Keynote Book Creator, Popplet	Seesaw, Word, Pages Google Docs Keynote Book Creator, Popplet	Seesaw, Word, Pages Google Docs Keynote Book Creator, Popplet	
Apps: Information Technology Data Handling	Seesaw,	Seesaw, Pic Collage, Plickers Google Sheets, Google Forms, Excel, Numbers	Google Sheets, Google Forms, Excel, Numbers, Kahoot	Google Sheets, Google Forms, Excel, Numbers, Mentimeter	
Apps: Information Technology Presentation, Web Design, and eBook Creation	Seesaw	Seesaw, Pic Collage, Balloon Stickies +, Thinglink, Book Creator	Balloon Stickies +, Google Sites, Book Creator, Keynote, Adobe Spark Page, Thinglink, Marvel	Google Sites, Book Creator, Keynote, PowerPoint, Wakelet, Adobe Spark Page, Thinglink	

Apps: Information Technology Animation	Puppetpals, ChatterPix Kids	Puppetpals, ChatterPix Kids, I Can Animate, Seesaw	Puppetpals, ChatterPix Kids, Animate Anything, I Can Animate, iFunFace, Seesaw, Puppetmaster, Toontastic	Puppetpals, ChatterPix Kids, Animate Anything, I Can Animate, iFunFace, Seesaw, Plotagon, Puppetmaster, Toontastic	
Apps: Information Technology Video Creation	CameraApp Shadow Puppets Edu	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe SparkVideo	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything	
Apps: Information Technology Photography and Digital Art	Camera, Mark up, Photo booth, Seesaw, Draw & Tell	Camera Mark up, Photobooth, Seesaw, Keynote, Pic Collage, Notes	Camera and Mark up, Notes, Seesaw, Keynote Pic Collage, Sketches Pro, Paper	Camera and Mark up, Notes, Seesaw, Keynote, Pic Collage, Sketches Pro Paper	
Apps: Information Technology Augmented Reality and Virtual Reality	AR Makr, Figment AR LEO AR Camera	AR Makr, Thinglink, Keynote, Figment AR	AR Makr, Thinglink, Keynote, EyeJack, Figment AR Halo AR	AR Makr, Adobe Aero, Thinglink, Keynote, EyeJack, Merge Cube, Figment AR Halo AR	
Apps: Information Technology Sound	Seesaw, Voice Memos, Keezy	Seesaw, Voice Memos, Garageband, Anchor, Keezy	Seesaw, Voice Memos, Garageband, Anchor, Keezy	Seesaw, Voice Memos, Garageband, Anchor, Keezy	
Apps: Computer Science Computational Thinking	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	
Apps: Computer Science Coding and Programming	Beebot, Daisy the Dinosaur	Beebot, Scratch Jnr, Kodable, Tynker	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds	

Apps: Computer Science Computer Networks (KS2)	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	Resources from MrPICT.com, Barefoot Computing	
Apps: Digital Literacy E-Safety Education for a Connected World	ProjectEvolve.com MrPICT.com	ProjectEvolve.com MrPICT.com	ProjectEvolve.com MrPICT.com	ProjectEvolve.com MrPICT.com	