

Computing progression of knowledge and skills (KPI's in Bold)

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
CS	- I can sequence events, such as events in a story or activities in a day - I can understand words to support sequencing such as 'first, next, then' - I can follow instructions - I can explore how to use a Beebot	- I understand that an algorithm is a precise, step-by-step set of instructions to complete a task - I know that an algorithm written for a computer is called a program I can design a simple program to control the movements of a screen sprite - I can say that if something does not work how it should, it is because my code is incorrect - I can try and fix my code if it isn't working properly - I can make good guesses of what is going to happen in a program. For example, where the sprite might go	- I can explain an algorithm is a precise, step-by-step set of instructions to complete a task - I know I need to be precise when I plan my algorithm so it will work when I make it into a code - I can design a simple program that achieves a purpose - I can find and correct some errors in my program (debugging) I can say what will happen in a program - I can spot something in a program that has an action or effect (does something)	- I understand that usually a problem can be broken up into smaller parts I can create an algorithm to make something happen successfully. I can talk about it. - I know when to test a program and debug it if it doesn't work - I understand that repeating instructions can save time and make a program simpler - I can explain how a simple program works (you may like to use words like input and output) - I can predict some of the things that may happen BEFORE I run my program I can read and explain a flowchart for a computer program	I can recognise an error in a program and debug it so that it works - I understand that algorithms (step-by-step instructions) will help the user to solve problems - I recognise the need to test and retest whilst a program is being developed (using my prediction skills of what MIGHT work) - I understand that a program is built up of sequences of instructions that are in order - I understand that many programs can follow more than one route (more than one thing can happen) (eg IF THEN statements) - I understand that repeating instructions can save time and make a program more efficient - I can explain what a variable is and include them in my programming	- I can use a range of sensing tools (eg within programs such as Scratch) to control what happens (eg based on the positions of the sprite, mouse position or inputs such as sound level) - I can recognise an error in a program, debug the program and explain the changes I have made I recognise the need to test and retest whilst a program is being developed - I understand why it may be useful to simplify a program as much as possible (e.g removing unnecessary code or using a REPEAT instruction) - I understand that any system requires input devices (eg Keyboard) and output devices (eg printer) I understand that computers can be linked together to create a network and that this can help me working with others online (collaboration) - I understand what decomposition and abstraction are	- I can write programs to do what I want them to do. I can test and debug these - I can use IF, THEN, ELSE commands to control what happens - I can create and call FUNCTIONS to better organise my coding - I understand what variables can be used to make a game more realistic (eg a timer or score) - I understand that any system requires input devices (eg. Keyboards) and output devices (character on screen/ printer/ model) and that the system processes the data I can control a physical system using a range of commands (eg LEGO) - I understand that my work can be saved in a range of places (the device itself, USB stick or 'in the cloud') and can talk about this
IT	- Explore the uses of technology in role play set ups - Explore the use of the Interactive Whiteboard to support learning (in other curriculum areas) - Explore the use if iPads to take photos	I can complete a simple task on a computer or tablet by following instructions - I know can save my work (with some help) - I can load my digital work (with some help) - I can enter text into my work - I can enter numbers into a computer (e.g. to create a pictogram) - I can create picture based digital content	I can use technology to create a range of content (I.e: text based, image based, number based) - I can name, save and load my work - I can edit digital content (such as editing data or editing format) - I can organise digital content (such as organising data or organising files)	I can communicate my ideas well using the right software and formats - I understand that appropriate messages can be sent digitally (via email) - I can use an appropriate search engine effectively - I can use software to collect and present data in a way that is easy to understand - I can create a presentation that is easy to understand and that is interesting	- I can use some of the more advanced features of applications (not just change font) to present my ideas and work clearly - I can combine more than one sources of information (eg text, picture, video, animation, sound) in my work - I can evaluate my digital work to see if it has met the target or goal set for me I can use an appropriate search engine effectively and judge if the information is useful to me - I can use software to collect, present and analyse data appropriately (eg to make a chart) - I can create a presentation to convey meaning and edit it if necessary (eg on PowerPoint)	I am aware of several different search engines and can explain their difference (eg. google, Bing) - I can combine more than one source of information (eg text, picture, video, animation, sound) in my work and can present this well to other people - I can use software to collect, present and analyse data appropriately. I can explain what I have done to other people - I can create and edit a presentation to provide information clearly and can include hyperlinks in it (eg using Powerpoint or Keynote)	- I am aware of several different search engines and can explain some of their features - I understand how some results are selected and put in order (ranked) when searched for on the World Wide Web I can select, use and combine a variety of software effectively (including internet services) to meet goals I have been set - I can combine several sources of information (eg. Text, pictures, video, animation, sound) in my work to meet the goal I have been set - I can use software to collect, present, analyse and evaluate data appropriately (eg using a spreadsheet and/or a database) - I can create and edit a presentation to convey meaning and include nonlinear hyperlinks in it (eg. PowerPoint or Keynote) - I can present data and information in a way that is easy to understand
DL	I can recognise, online or offline, that anyone can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset. - I can give examples of how I (might) use technology to communicate with people I know - I can recognise ways that I can put information on the internet - I understand that some people could be unkind	- I can explain what technology is - I can start to understand that some work is online (internet based) and some work is offline I know that I can tell a trusted adult if something makes me feel sad, worried, uncomfortable or frightened - I am beginning to understand the importance of communicating respectfully when going online - I am beginning to	I can identify some common uses of technology (including information technology) outside of the school - I am beginning to understand that people may look and act differently online and offline I understand some basic rules about how to communicate safely with other people online - I am beginning to understand why I should think carefully about information I put online - I understand what bullying is and the effect it has I am building an understanding of the kinds of information that	- I can explain some differences between the kinds of information found on the Internet and am developing some sensible strategies for navigating the web. - I can explain what identity is and am developing my understanding of how identities can be different online. - I can explain some ways to communicate well online, and demonstrate careful consideration around issues of trust and permission.	- I am making more sensible decisions about how to approach questionable information on the Internet, and can demonstrate some mature judgements. - I have a clear idea about what positive interactions look like on the Internet, and am aware that sometimes people may pretend to be someone else online. - I am aware of safe and fun experiences that may be enjoyed in a range of online environments, and can explain some ways to be respectful of others. I can explain how to find out things about others online and I am	I can evaluate digital content through showing consideration for its source and can connect problematic material to wider issues, such as stereotyping or widespread misinformation. I know the ways in which identity can change online can explain how to make responsible choices about my own online identity. - I know that some people online may have harmful intentions, and can explain ways to communicate positively or support others. - I can summarise and evaluate the accuracy of information I have found about an individual online. - I know how to create a strong password and can give examples of ways in which	- When I am evaluating online content, I can show an understanding of some of the wider social issues around it in order to establish its validity (e.g. news providers, advertisers, bias, opinion vs fact). - I can identify and challenge inappropriate or inaccurate representations online, show understanding as to how these can affect people and know how to seek help. - I can give detailed explanations as to how some online posts can impact a user, and am aware of some potential unintended consequences of sharing private material (e.g. screen grabs). - I can explain strategies to protect my online reputation, and know how to create a positive digital identity. - I describe some ways to manage passwords and can explain the consequences of not keeping data or apps secure and up to date. I understand how some products are designed to keep

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	online - I am beginning to understand how I can find information online - I can identify rules that help keep us safe and healthy in and beyond the home when using technology I can identify some simple examples of my personal information (e.g: name, address, birthday, age, location) - I can name my work so that others know it belongs to me	understand that I should think carefully about information I put online - I can describe how to behave online in ways that do not upset others and can give examples - I can give examples of how to find information using digital technologies (e.g: search engines, voice activated searching) and understand we may encounter things we like/don't like when searching online - I can explain rules to keep myself safe when using technology both in and beyond the home I can understand that some information is private (e.g: passwords) and I mustn't share it - I can identify work that belongs to me	can be found online (including content that may not be true) and can use simple strategies to navigate the web - 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 begin to understand how personal information can be kept private - I can recognise that content on the internet may belong to other people	- I am beginning to think about different ways that you can represent yourself online, and am starting to show consideration about what should and shouldn't be posted. - I can explain some ways to keep information secure, and can give a simple explanation of the possible consequences of not doing so. I am beginning to show an understanding of positive and negative uses of technology and explain why certain restrictions may be needed. - I can give examples of what online bullying may look like and suggest some actions that could be taken in response to it. I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.	thinking more about where this information may have come from. - I understand that content on the Internet is stored and monitored, and I know how to keep my personal information private. - I understand that technology can be both a positive and negative distraction at times, and can suggest strategies for limiting time using it. I recognise different ways in which people can be bullied online and can demonstrate an understanding of how certain posts might affect others. - I can explain why I need to respect the ownership of content on the web, and can give some examples of things I may not use without permission from the owner.	apps can read and share private information. - I can promote positive health and wellbeing choices when using technology and can make some sensible judgements about things I may read online about my health or lifestyle. - I can describe differences between physical-world and cyber bullying and have several suggestions about positive actions an individual can take in response to it. - I can assess and justify when it is acceptable to use the work of others, and give some examples of content which can be reused.	me using them and know ways to limit or prevent technology from having a negative impact on my health or well-being. - I know how to capture cyberbullying evidence and how to share it with those who can help me, as well as knowing other ways to report upsetting digital content. I know several ways to find reusable content on the Internet, and know why it is important to refer to and acknowledge sources I have used.
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