

COMPUTING PROGRESSION OF SKILLS DOCUMENT

SKILL AREA	EYFS	Y1	Y2	Y3	Y4	Y5	Y6
KEY SKILLS	<ul style="list-style-type: none"> •KS1 To enter/save and retrieve pictures and text •KS2To interact with age appropriate computer software. •KS3 To enter/save and retrieve pictures and text •KS4 To be introduced to the technology in the classroom. (Smartboard, Remote Control Cars, Beebots, Caterpillars and CD player) • KS5To be shown how to use these correctly. 	<ul style="list-style-type: none"> •KS1 To know how to switch a range of digital devices (computer/laptops) on and off •KS2Load programs (office, apps) with support/open and close apps •KS3 Use a mouse pad to navigate an age-appropriate website/know how to navigate programmes •KS4 Use a mouse pad to select/drag/position an object or window to talk about what they are doing with Computers/Digital Media using appropriate vocabulary according to equipment available e.g screen/keyboard/laptop/computer/mouse/headphones 	<ul style="list-style-type: none"> •KS1 To develop awareness of keyboard layout and use of a mouse e.g. use the mouse or arrow keys to insert words and sentences •KS2 To know backspace/undo •KS3 shift for capital letters/enter/upload •KS4 Changing font/ size/colour and style of text. •KS5 typing skills (use two hands when typing) •KS6 Logging on/off digital devices use navigation skills to access appropriate parts of a website/ simple program/ app 	<ul style="list-style-type: none"> •KS1 To upload from digital devices and the Internet to a shared space(Classfolders /Chr’s Folder) •KS2 To know that they can access their work from any school computer by logging on to their Folder/Network Area. •KS3 Open/edit and save their work in own space • KS4To insert/cut/ copy/paste •KS5 Use ctrl+v and ctrl+c to copy and paste •KS6 To use ‘save as’ to create another version of their work •KS7 To develop further basic drafting skills: •KS8 Insert words or sentences. • Centre titles. •KS9 Change font, font size, colour. •KS10 To practice touch typing 	<ul style="list-style-type: none"> • KS1 To use the onlinedictionary/thesaurus • KS2 To use ctrl+alt+prntscrn to take a picture of the whole screen and paste it into paint to adapt it. • KS3 Use windows snipping tool to capture and annotate work • KS4 Continue to practice touch typing Use more than two fingers to type • KS5 To develop further basic drafting and editing skills • KS6 Edit and top copy literacy work using Word/PPT/Publisher • KS7 Use spell checker • KS8 delete, insert and replace text using mouse or arrow keys 	<ul style="list-style-type: none"> • KS1 To be able to use an online dictionary/thesaurus to search out level specific grammar and vocabulary independently • KS2 To use a variety of techniques to save and annotate on screen projects (screenshots/snipping) •KS3 To find, save, crop and edit images to suit needs of projects • KS4 Continue to practice touch typing and use several fingers when typing • KS5 Use spellchecker and grammar checker to ensure consistency throughout work 	<ul style="list-style-type: none"> • KS1 To continue to build on Yr5 key skills • KS2 To select suitable software to edit and redraft written work • KS3 Use a variety of keyboard shortcuts to improve efficiency on computing systems
ONLINE SAFETY	<ul style="list-style-type: none"> • OS1To learn to check with a grown up if they want to use the Internet. • That anyone can add things to the Internet and not everything is suitable for children. •OS2That sometimes unexpected things appear on your screen. • OS3 To never click on things that you don’t know and always tell/show a grown up • OS4 To learn that just like the real world, the Internet has people who are kind and unkind, but they may be harder to spot as people can pretend to be someone they are not. 	<ul style="list-style-type: none"> • OS1 Recognise that there may be people online who could make people feel sad, embarrassed or upset. • OS2 If something happens that makes them feel sad, worried, uncomfortable or frightened, they can give examples of when and how to speak to an adult they can trust • OS3 Use the internet with adult support to communicate with people they know. • OS4 Explain why it is important to be considerate and kind to people online. • OS5 Recognise that information can stay online and could be copied. • OS6 Describe what information should not put online without asking a trusted adult first. • OS7 Describe how to behave online in ways that do not upset others and can give examples. • OS8 Identify rules that help keep us safe and healthy in and beyond the home when using technology. • OS9 Explain rules to keep us safe when we are using technology both in and beyond the home and give examples of some of these rules. • OS10 Recognise more detailed examples of information that is personal to them (e.g. where I live, my family’s names, where I go to school). • OS11 Explain why they should always ask a trusted adult before they share any information about myself online. • OS12 Explain how passwords can be used to protect information and devices. •OS13 Explain why work they create using technology belongs to them. • OS14 Say why it belongs to them (e.g. ‘it is my idea’ or ‘I designed it’). 	<ul style="list-style-type: none"> • OS1 Explain how other people’s identity online can be different to their identity in real life. • OS2 Describe ways in which people might make themselves look different online. • OS3 Give examples of issues online that make them feel sad, worried, uncomfortable or frightened and give examples of how they might get help. • OS4 Understand that they can use the internet to communicate with people they don’t know and can give examples. • OS5 Explain how information put online about them can last for a long time. • OS6 Know who to talk to if they think someone has made a mistake about putting something online. • OS7 Give examples of bullying behaviour and how it could look online. • OS8 Understand how bullying can make someone feel. • OS9 Talk about how someone can/would get help about being bullied online or offline. • OS10 Explain simple guidance for using technology in different environments and settings. • OS11Say how those rules/guides can help them. •OS12 Describe how online information about them could be seen by others. • OS13 Describe and explain some rules for keeping their information private. • OS14 Explain what passwords are and can use passwords for their accounts and devices. •OS15 Explain how many devices in their home could be connected to the internet and can list some of those devices. • OS16 Describe why other people’s work belongs to them. • OS17 Recognise that content on the internet may belong to other people. 	<ul style="list-style-type: none"> • OS1 Explain what is meant by the term ‘identity’ and how they can represent themselves in different ways online. • OS2 Explain ways in which and why they might change their identity depending on what they are doing online • OS3 Describe ways people who have similar likes and interests can get together online. • OS4 Give examples of technology specific forms of communication (e.g. emojis, acronyms, text speak). • OS5 Explain some risks of communicating online with others they don’t know well. • OS6 Explain why they should be careful who they trust online and with what information • OS7 Explain how people’s feelings can be hurt by what is said or written online. • OS8 explain why they can take back their trust in someone or something if they feel nervous, uncomfortable or worried. • OS9 Explain what it means to ‘know, like and/or trust someone’ online and why this might be different from knowing/liking/ trusting someone in real life. • OS10 Search for information about themselves online. • OS11 Recognise they need to be careful before they share anything about themselves or others online. • OS12 Know who they should ask if they are not sure if they should put something online. • OS13 Explain what bullying is and can describe how people may bully others. • OS14 Describe rules about how to behave online and how they follow them. • OS15 Explain why spending too much time using technology can sometimes have a negative impact on them • OS16 Understand and can give reasons why passwords are important and describe simple strategies for creating and keeping them private. • OS17 Describe how connected devices can collect and share their information with others. • OS18 Give reasons why they should only share information with people they choose to and can trust and can explain that if they are not sure or feel pressured, they should ask a trusted adult. • OS19 Explain why copying someone else’s work from the internet without permission can cause problems and give examples of what those problems might be. 	<ul style="list-style-type: none"> • OS1 Explain how their online identity can be different to the identity they present in ‘real life’. • OS2 Knowing about this, describe the right decisions about how they interact with others and how others perceive them. • OS3 Describe strategies for safe and fun experiences in a range of online social environments. • OS4 Give examples of how to be respectful to others online. • OS5 Describe how others can find out information about them by looking online. • OS6 Explain ways that some of the information about them online could have been created, copied or shared by others. • OS7 Identify some online technologies where bullying might take place. • OS8 Describe ways people can be bullied through a range of media (e.g. image, video, text, chat). • OS9 Explain why they need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them. • OS10 Explain how using technology can distract them from other things they might do or should be doing. • OS11 Identify times or situations when they might need to limit the amount of time, they use technology and suggest strategies to help them limit this time • OS12 Explain what a strong password is. • OS13 Describe strategies for keeping my personal information private, depending on context. • OS14 Explain that others online can pretend to be me or other people, including my friends. • OS15 Suggest reasons why they might do this. • OS16 Explain how internet use can be monitored • OS17 When searching on the internet for content to use, explain why they need to consider who owns it and whether they have the right to reuse it. 	<ul style="list-style-type: none"> OS1 Explain how identity online can be copied, modified or altered. • OS2 Demonstrate responsible choices about their online identity, depending on context. • OS3 Make positive contributions and be part of online communities and describe some of the communities in which they are involved and describe how they collaborate with others positively • OS4 Search for information about an individual online and create a summary report of the information they find. • OS5 Describe ways that information about people online can be used by others to make judgments about an individual. • OS6 Recognise when someone is upset, hurt or angry online. • OS7 Describe how to get help for someone that is being bullied online and assess when they need to do or say something or tell someone. • OS8 Explain how to block abusive users. • OS9 Explain how they would report online bullying on the apps and platforms that they use. • OS10 Describe the helpline services who can support them and what they would say and do if they needed their help. • OS11 Create and use strong and secure passwords. • OS12 Explain how many free apps or services may read and share their private information with others. • OS13 Explain how and why some apps may request or take payment for additional content (e.g. in-app purchases) and explain why they should seek permission from a trusted adult before purchasing. • OS14 Assess and justify when it is acceptable to use the work of others and give examples of content that is permitted to be reused. 	<ul style="list-style-type: none"> OS1 Describe ways in which media can shape ideas about gender. • OS2 Identify messages about gender roles and make judgements on them. • OS3 Challenge and explain why it is important to reject inappropriate messages about gender online. • OS4 Describe issues online that might make them, or others feel worried or frightened and can give examples of how they might get help, both on and offline. • OS5 Explain why they should keep asking until they get the help they need. • OS6 Show they understand their responsibilities for the well-being of others in their online social group. • OS7 Explain how impulsive and rash communications online may cause problems. • OS8 Demonstrate how they would support those who are having difficulties online. • OS9 Demonstrate ways of reporting problems online for both themselves and their friends • OS10 Explain how they are developing an online reputation which will allow other people to form an opinion of them. • OS11 Describe some simple ways that help build a positive online reputation. • OS12 Describe how to capture bullying content as evidence to share with others who can help them. • OS13 Identify a range of ways to report concerns both in school and at home about online bullying. • OS14 Describe common systems that regulate age-related content and describe their purpose. • OS15 Use different passwords for a range of online services and effective strategies for managing those passwords • OS16 Know what to do if their password is lost or stolen. • OS17 Explain what app permissions are and can give some examples from the technology or services used. • OS18 Describe simple ways to increase privacy on apps and services • OS19 Describe ways in which some online content targets people to gain money or information illegally and can describe strategies to help them identify such content • OS20 Demonstrate the use of search tools to find and access online content which can be reused by others. • OS21 Demonstrate how to make references to and acknowledge sources they have used from the internet.
COMPUTER SCIENCE	<ul style="list-style-type: none"> • CS1 To use ICT hardware to interact with age appropriate software • CS2 To be taught how to use the Beebot. • CS3 To program the Beebot to move to a particular place. • CS4 To program the Beebot or Codapillar to follow 1, 2 or 3 commands • CS5 To learn that they can access the Internet on a variety of devices and discuss what they use the Internet for 	<ul style="list-style-type: none"> • CS1 To explore a range of control toys and digital devices (BeeBots/ microphones/laptops) • CS2 To follow instructions to move around to complete a simple task • CS3 To give a sequence of instructions to complete a simple task • CS4 To record instructions simply using pictures • CS5 To understand that instructions should be given clearly and in the correct 	<ul style="list-style-type: none"> • CS1 Understand that programs use precise instructions to work • CS2 Create simple programs and find bugs in them. • CS3 Predict outcomes of their algorithms and programs • CS4 To know how to control a range of digital devices • CS5 To know that devices and actions on screen may be controlled by sequences of actions and instructions • CS6 To create a 	<ul style="list-style-type: none"> • CS1 To develop an understanding of how technology works and how computers process instructions and commands. • CS2 To create/edit and refine more complex sequences of instructions for a variety of programmable devices e.g. using the repeat command • CS3 To use a computer to create basic applications, investigating how different variables 	<ul style="list-style-type: none"> • CS1 To understand that ICT allows for situations to be modelled which it would be impractical to try out in real life • CS2 To investigate the effects of changing variables in these simulations • CS3 To develop their understanding of how technology works and how computers process instructions and commands • CS4 To create a program which can be controlled by external 	<ul style="list-style-type: none"> • CS1 To begin to develop understanding of how technology works; how computers process instructions and commands, including the use of coding languages. • CS2 To experience a selection of coding environments • CS3 To design their own game including sprites, backgrounds, scoring and/or timers. • CS4 To use conditional statements to 	<ul style="list-style-type: none"> • CS1 To continue develop understanding of how technology works; how computers process instructions and commands, including the use of coding languages. • CS2 To experience a variety of coding environments • CS3 To show an understanding of the history of computing and computer science. • CS4 To design their own game

		order • CS6 To talk about what will happen when instructions are given in a sequence • CS7 To navigate a sprite/BeeBot around a course	sequence of instructions to complete a simple task (move a BBot/create a simple shape) • CS7 To control a floor robot using appropriate buttons (BeeBots) • CS8 To make predictions about what will happen when a command is entered • CS9 To discuss how to improve/change their sequence of commands. • CS10 To know the purpose of a range of digital devices: laptops/cameras/computers • CS11 To begin to answer ‘What if’ questions using a simulation • CS12 To know the difference between input/output devices	can be changed and the effect this has • CS4 To understand that computer simulations can represent real life situations. • CS5 To use simulations to represent real life situations To navigate a programming app • CS6 To control a character by dragging commands • CS7 To write a simple program/create a simple animation	inputs e.g to program their character to navigate their 3D world with an input using control device • CS5 To change algorithms/conditional statements and investigate the effect this has e.g use of ‘if’ and ‘then’	create unique algorithms • CS5 Begin to understand the history of Computer Science • CS6 Use variables to add variation to algorithms • CS7 To program start and ends to games involving wins, losses and draws • CS8 To create variable interaction in quizzes and games using a combination of selection, conditional statements and variables • CS9 To evaluate the effectiveness of their algorithms • CS10 To continually debug code to identify and correct errors, exceptions and exploits	including sprites, backgrounds, scoring and/or timers. • CS5 To use conditional statements to create unique algorithms • CS6 Use variables to add variation to algorithms • CS7 To program start and ends to games involving wins, losses and draws • CS8 To create variable interaction in quizzes and games using a combination of selection, conditional statements and variables • CS9 To evaluate the effectiveness of their algorithms • CS10 To continually debug code to identify and correct errors, exceptions and exploits
INFORMATION TECHNOLOGY	<ul style="list-style-type: none"> • IT1 To complete a simple program on the computer- ‘Infant Tool Kit’, use the mouse and to select different colours and print • IT2 To observe and perform a search on the internet. • IT3 To discuss the technology that they use throughout the year, including smart TV 	<ul style="list-style-type: none"> • IT1 To use a digital device to take a picture or record their work (digital camera) • IT2 To select or record a sound to add to their work • IT3 To be familiar with a keyboard • IT4 To select images on a computer/laptop • IT5 To begin to type sentences using capital letters, full stops and other punctuation • IT6 To use a paint package to a create a picture • IT7 To use pre-defined layouts or templates for presentation • IT8 To know other uses for ICT outside of school • IT9 To discuss examples of other ICT uses. 	<ul style="list-style-type: none"> • IT1 To develop basic editing skills e.g. shift key for upper case, question marks, spaces after punctuation. • IT2 To know how to improve the presentation of a piece of work by changing the font size, colour and style • IT3 To use different layouts and templates for different purposes (e.g. story/newspaper /poster) • IT4 To understand that folders are used to organise files on a computer • IT5 To organise files and folders by creating, renaming, moving, copying and deleting • IT6 To combine graphics, text and sound to enhance their text (PPT/Word) • IT6 To use a sound recording tool to record voice for a specific purpose (D/E/PPT) • IT7 To create a simple animation to illustrate a story or idea • IT8 To upload an image 	<ul style="list-style-type: none"> • IT1 To use still and digital cameras • IT2 To know what makes a good photo (hold the camera steady/point at people’s faces/to discuss the quality of their image and make decisions (e.g. delete a blurred / bad image) • IT3 download images and video • IT4 To select suitable sounds (including recording with a microphone) • IT5 recognise and use key features of layout and design such as text boxes, columns, borders, WordArt • IT6 Explore and begin to use more advanced features in a paint package, eg colour picker, colour replacer • IT7 Save images and use them as part of other multimedia/ desktop publishing work • IT8 To use music software to select/record/organise and reorganise sounds • IT9 To locate, record, save and retrieve sounds • IT10 to add sounds from different sources. • IT11 Sequence still images and use simple editing techniques to create a presentation 	<ul style="list-style-type: none"> • IT1 To evaluate a range of digital media, appropriate to task e.g websites • IT2 To plan structure and layout of document /presentation • IT3 To improve presentation of a document by laying it out effectively • IT4 To select and import images from digital cameras and graphics packages • IT5 Select and import sounds (eg own recording) and video/ visual effects • IT6 Through peer assessment and self evaluation, evaluate work after completion, and make suitable improvements • IT7 To develop an increasing awareness of intended audience. • IT8 To import a photograph and explore the effects which can be created • IT9 To select areas and manipulate to give different effects. • IT10 To capture video clips to communicate their ideas • IT11 To cut and reorganise digital video • IT12 To use a timeline to organise frames of video footage • IT13 To add text, sound effects and other graphic effects • IT14 To select from your best work to save and share (presentation, class folder) • IT15 To use at least two online communication methods in topic work (blogs/emails etc.) • IT16 To discuss advantages and disadvantages of these communication methods • IT17 To start to think about the different styles of language layout and format of online communications sent to different people (eg. when it is appropriate to use “text language”). • IT18 To begin to experience forms of online discussion: such as blogs, wikis, • IT19 Start new threads and contribute to others relevant to the topic; consider relevance of contributions 	<ul style="list-style-type: none"> • IT1 To use presentation software and skills to present work or information relating to their learning. • IT2 To evaluate a range of digital media, appropriate to task e.g website, prezi, blog, pdfs and recognise key features of layout and design and relate to other curriculum areas (Reading/Writing /Topic) • IT3 To select software to support structure and layout of document/ presentation • IT4 To improve presentation of a document by considering its target audience • IT5 To select and import graphics from digital cameras, graphics packages and online sources • IT6 To select and import sounds (eg own recording, free online sources) video/visual effects • IT7 Through self-evaluation, evaluate projects both during and after completion, and make suitable improvements • IT8 To develop projects with an awareness of intended audience • IT9 To capture video clips to communicate ideas and information to specific audiences • IT10 To edit, reorganise and enhance digital video for a specific purpose or audience • IT11 To use online communication methods to support topic work • IT12 To consider language, layout and format when communicating with different people online 	<ul style="list-style-type: none"> • IT1 Through peer assessment and selfevaluation, evaluate projects both during and after completion, and make suitable improvements • IT2 To engage in a range of online activities including; publishing and sharing work for evaluation and evaluating the work of others.
DIGITAL LITERACY	<ul style="list-style-type: none"> • DL1 To learn that the Internet is a connected network of computers which can share information. • DL2 To learn that we can use the Internet to communicate with people who aren’t in the same place as us. • DL3 To learn that we can use technology to create and share words and pictures. 	<ul style="list-style-type: none"> • DL1 To know that we can communicate online (email/text) • DL2 To contribute ideas to a class email or respond to a message • DL3 To create a story to combine words, pictures, sounds and animations (ppt) • DL4 Use simple writing tools to create their own content (office/purple mash) • DL5 Follow age-appropriate links provided by the teacher to research information • DL6 With support, use sound recording tools to convey a simple message • DL7 To sort objects into groups according to the criteria 	<ul style="list-style-type: none"> • DL1 To compare the different ways that messages can be sent e.g email/text /telephone/letter and start to consider their advantages and disadvantages • DL2 To contribute and respond to an email (with support from teacher) • DL3 to look and talk about other people’s contributions online (padlet/prezi/D/E) • DL4 To consider who can see their contributions on various sites • DL5 To know that stories can be shared in different ways (photos/video/animation) • DL6 To create/use own pictograms/graphs • DL7 To create QR codes • DL8 To access websites and documents using QR codes • DL9 To enter/save and retrieve pictures and text 	<ul style="list-style-type: none"> • DL1 To reply to an email independently • DL2 To evaluate a range of printed and electronic texts, appropriate to task e.g newspaper, poster, webpage and recognise key features of layout and design • DL3 To organise and present information for a specific audience • DL4 To begin to experience forms of online discussion: such as blogs, wikis, quizzes, surveys and google hangouts • DL5 To know that ICT enables access to a wider range of information and tools to help find specific information quickly • DL6 Produce work using a computer, using more advanced features of programs and tools (font sizes) • DL7 To work collaboratively to create documents, including presentations • DL8 To understand the basic structure of a database • DL9 To add data to a pre-made database • DL10 To use the data in a pre-made database to generate graphs and charts • DL11 To use technology to create graphs and charts • DL12 To answer questions by searching and sorting a database 	<ul style="list-style-type: none"> • DL1 To open/read, and reply to email (independently) • DL2 To collaborate to create a document, giving thought to its audience and including links/images/ embedded media (PPT) • DL3 To understand that ICT allows us to make improvements to our work quickly and efficiently. • DL4 To continue to use technology to create graphs and present data in different ways. • DL5 To design and create a basic database • DL6 To use a database to answer questions that have been constructed • DL7 To enter data into a spreadsheet • DL8 To change data and observe changes in results 	<ul style="list-style-type: none"> • DL1 To use technology to present their work, showing an increasing degree of skill and using advanced software • DL2 To use different filming techniques and camera angles e.g. zoom, panning, wide shot etc. to create different mood/perspective • DL3 To plan a video or animation by drawing a storyboard • DL4 To use a range of sound effects, music and voice-overs to create mood/ atmosphere • DL5 To select and edit sounds, text, movie clips and other effects to suit purpose and audience • DL6 Begin to recognise that the internet may contain material that is irrelevant, bias and inappropriate. • DL7 Begin to understand how issues of copyright apply to their own work • DL8 Begin to understand the different type of copyright pertaining to digital medias 	<ul style="list-style-type: none"> • DL1 Use technology to present their work, showing a degree of skill and using advanced software • DL2 To use a range of sources to check validity and recognise different viewpoints and the impact of incorrect data • DL3 Understand how issues of copyright apply to their own work • DL4 Understand the different type of copyright pertaining to digital medias • DL5 Recognise that the internet may contain material that is irrelevant, bias and inappropriate. • DL6 Save and use pictures, text and sound recognising copyright issues

National Curriculum : KS1

Computer Science • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs Information Technology • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school Digital Literacy • 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

National Curriculum KS2

Computing Science • 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 simple algorithms work and to detect and correct errors in algorithms and program2 Information Technology • Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Digital Literacy • 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 • Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact