

Morley Primary School

Being a Digital User

EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.		
	Year 1	**Year 2**	**Year 3**
Computer Science (programming)	I can give instructions to, and respond to instructions from, other children involving movement around the room. I am beginning to understand that sequence (order) is important when devising algorithms and programming devices.	I can give precise instructions to, and respond to instructions from, other children involving movement around the room. I can describe what actions are needed for a particular task and begin to use the word algorithm. I can understand that a number of different algorithms will often all solve the same problem. I am able to predict what will happen in an algorithm or program. I can understand why algorithms are useful for solving a wide range of problems and that we use algorithms every day.	I can work with a partner to design, write and de-bug programs that accomplish specific goals, including controlling or simulating physical systems. I am beginning to solve problems, by decomposing them into smaller parts. I can use sequence in programs. I am beginning to work with variables I can work with various forms of input and output with support. I am beginning to use logical reasoning to explain how some simple algorithms work.
Computer Science (programming)	<u>Robots and on-screen programming</u> I can describe what I expect to happen while programming a robot. I am beginning to understand that sequence (order) is important when devising algorithms and programming devices I can execute a program, observe the results. I am beginning to write programs successfully to create movement on-screen. I am beginning to use different kinds of inputs in programming (key press, mouse click tap on a sprite, automated start condition …)	<u>Robots and on-screen programming</u> I can describe clearly what I expect to happen while programming a robot. I can predict what will happen in an algorithm or program that I have not written myself. I can execute a program, observe the results carefully spot errors and debug them. I can understand that programs respond to inputs to carry out actions. I can understand that a number of different algorithms will often all solve the same problem. I can write programs successfully to create movement on-screen. I can use different kinds of inputs in programming (key press, mouse click tap on a sprite, automated start condition …)	

Computer Science (computers and networks)	I am aware of obvious uses of IT in and beyond school. I have a growing awareness of things in and beyond the home that have some kind of computer in them (microwave, car etc) With support, I can save and retrieve my work.	I can understand some of the things that people do with computers at work and at home. I can understand that most computers, tablets and phones are connected to the internet. I can recognise that any one of a range of digital devices can be considered a computer. I can log on to a computer network. I understand how to save and retrieve my work from a shared drive	I understand that the Internet is a collection on computers (servers) joined together across the world I know there is a difference between the internet and the world wide web I am aware of the basic structure of the school network, how it is connected (physical wiring, wireless …) and the services that are a part of it (printing, scanning, internet via server …) I can save my work to a variety of locations on the school network, online and locally to a device. I understand the reasons for saving in different places.
Information Technology (multimedia)	I can use a painting app to create a picture to communicate ideas I can use a camera or camcorder to take a picture or record my work I can begin to edit digital photographs I understand the differences between a graphics apps and traditional art activities I understand that some apps will enable images to be animated. I can talk about my use of a painting app and my choice of tools	I can use brush and pen tools, create lines and textures and use the flood fill spray and stamp tools. I can use ICT to source, generate and amend ideas for my art work I can demonstrate good control when using still and video cameras understanding the need to frame an image or scene and keep the camera still I can create a sequence of images which together form a short animation to illustrate a story I understand that animation is a sequence of still images I am beginning to discuss the quality of my image and make decisions (e.g., delete a blurred image)	I can use different font effects, layout, format, graphics and illustrations I can use editing tools I can log on to an email account or forum I can recognise key features of different layouts (e.g. poster, newspaper, menu) I can select areas of a painting, copy and paste to make repeating patterns. I am developing greater control over the digital stills video camera and use the enhanced tools I can discuss and evaluate the quality of my captured images and make decisions I can create a short, animated sequence I can capture "footage" from different devices into simple movie editing software. I can add simple titles and credits, music and narration.

	I can use sound recorders / players to listen to pre-recorded sound I can experiment with a range of devices that create and record sound I can use software to explore sound and musical phrases for a purpose I can understand that devices have record and playback functions I can recognise that an electronic keyboard can be used to select and control sounds I can access different information using a range of equipment (apps, website, TV, DVD etc.)	I can use sound recorders / tablets to record and playback sounds (e.g., voices, instruments, sounds around them …) I can explore a range of electronic music and sound devices including keyboards, software, tablets and different peripherals I can compose music using icons to represent musical phrases I am beginning to understand that music and sound can affect mood and atmosphere	I can use IT to select and record voice and sounds I can select sound files in sound editing software / app. I can use music software or app to experiment with sound patterns. I can use music software / app to create a simple composition I can use ICT to create and perform sounds or music I can understand that copyright exists on most recorded music
Information Technology (data handling)	I can enter text into a search engine to find specific given web sites I can understand that IT (the internet) gives rapid access to a wide variety of information and resources I can talk about my use of IT and compare with other ways of finding information I understand and talk about how my information can be used to answer specific questions I am aware of responsible internet use and the school's acceptable use policy I can develop simple classification skills by carrying out simple sorting activities (probably away from the computer) I can sort and classify a group of items by asking simple yes / no questions I can talk about the different ways technology can be used to collect information, (e.g., camera, microscope or sound recorder). I can interpret graphs, discuss information contained and answer simple questions.	I can use appropriate buttons, menus and hyperlinks to navigate web sites for stored information I can locate specific sites by typing a website address (URL) into the address bar in a web browser. I can understand that different forms of information (text, images, sound, multimodal) exist and that some are more useful than others for specific purposes I am beginning to develop key questions to help find information I am aware of responsible internet use and the school's acceptable use policy I can use simple graphing programs to produce pictograms and other simple graphs I can use graphing software to change the way a graph type (e.g., pictogram to bar chart) I understand that IT can be used to sort items and information. I understand that IT can be used to create, display and change graphs quite easily. I am beginning to understand that if data has not been entered accurately it cannot be used to provide correct answers to questions.	I can develop key questions and key words to search for specific information I can use information purposefully to complete specific tasks I can use search engines for different media I understand a website has a unique address I can explain that some information found through searching is more relevant than others I can collect appropriate information, enter it into a database or spreadsheet I can generate and compare different charts and graphs I can explain that different graphs are used for different purposes I can organise, present, analyse and interpret the data in tables, tally charts, charts / graphs, I am beginning to develop skills to identify what data needs to be collected I can change the contents of cells in a spreadsheet. I can use a spreadsheet to record data I can use a spreadsheet to explore simple patterns.

Digital Literacy (e-safety)	I can use technology safely I can identify where to go for help and support when I have concerns about content or contact on the internet or other online technologies, I can recognise acceptable/unacceptable behaviour I know what to do when concerned about content or being contacted. I can recognise what is acceptable and unacceptable behaviour when using technologies and online services. I understand the importance of communicating safely and respectfully online, and the need for keeping personal information private.	I can keep personal information private I can use technology respectfully I can use technology responsibly I can identify a range of ways to report concerns about contact I am discerning in evaluating digital content I understand the importance of communicating safely and respectfully online, and the need for keeping personal information private. I can demonstrate use of computers safely and responsibly, knowing a range of ways to report unacceptable content and contact when online. I can demonstrate responsible use of technologies and online services, and knows a range of ways to report concerns. I can recognise ethical issues surrounding the application of information technology beyond school.	I make sensible decisions if content is inappropriate or upsetting I explain the Internet contains fact, fiction and opinion I am aware of online marketing I can explain why we must keep personal information and passwords private when communicating online. I know that anyone can create a user showing any age or gender and people you meet online may not be who they say they are. I can create a personal profile with an alias and avatar I can tell you how to deal with unpleasant communications via mobile, text, chat rooms I understand why you should only befriend people you know and trust never to meet up with "friends" you know only online. I can explain the importance of copyright issues and plagiarism I know why it is important to respect others' feelings and electronic work

	Year 4	Year 5	Year 6
Computer Science (programming)	I can design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; I can solve problems by decomposing them into smaller parts I can use sequence in programs (LKS2) I can use repetition in programs; I can work with variables I can work with various forms of input and output I can use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	I can explain and program each of the steps in my algorithm. I can review and amend the original algorithm while programming. I can deconstruct a problem into smaller steps, recognising similarities to solutions used before. I can recognise when a variable is needed to achieve a required result. I can program a sprite to add to the score on a certain action. I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. I can evaluate the effectiveness and efficiency of an algorithm, continually testing the programming of that algorithm. I can recognise there are different algorithms for the same problem. I can write programs that include variables (e.g., a scoring system in a game) I can design algorithms and programs that use repetition	I can explain and program each of the steps in my algorithm. I can review and amend the original algorithm while programming – constantly checking and debugging I can talk about how a computer model can provide information about a physical system. I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program for a device or onscreen activity. I can deconstruct a problem into smaller steps, recognising similarities to solutions used before. I can investigate *more blocks – make a block* to create more commands for actions that repeat in a program I can recognise when a variable is needed to achieve a required result. I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen. I can use logical thinking, imagination and creativity to extend a program. I can evaluate the effectiveness and efficiency of an algorithm, continually testing the programming of that algorithm. I can link errors in a program to a problem in the algorithm on which it is based. I can recognise there are different algorithms for the same problem. I can write programs that include variables (e.g., a scoring system in a game) I can suggest tasks best completed by humans and those for computers. I can recognise that different solutions exist for the same problem. I can design algorithms and programs that use repetition

Computer Science (computers and networks)	I understand that the Internet is a collection on computers (servers) joined together across the world I understand the differences between the internet and the world wide web I understand the basic structure of the school network, how it is connected (physical wiring, wireless …) and the services that are a part of it (printing, scanning, internet via server …) I can save (and successfully retrieve!) their work to a variety of locations on the school network, online and locally to a device. I understand the reasons for saving in different places. I understand the function of different externally visible parts of a computer (and peripherals) and classify as input or output devices.	I know that the internet provides different services and be able to describe some (email, www) I know that information is passed around the internet. I can tell a partner the functions of and terminology around web browsers and search engines I can tell a partner about the difference between physical, wireless and mobile networks.	I can explain that the internet provides different services and be able to describe some (email, www file transfer protocol, video conferencing …) I can explain how information is passed around the internet. I can explain how search results are selected and ranked by search engines I can tell a partner the functions of and terminology around web browsers and search engines I can identify key components within a PC and explain their function I understand the function of an operating system and be able to name some. I can explain the difference between physical, wireless and mobile networks. I understand the basics of how data is stored (binary code).

Information Technology (multimedia)	I can use different font effects, layout, format, graphics and illustrations to communicate for a given audience. I can use appropriate editing tools to ensure their work is clear and error free I can log on to an email account or forum, open emails, create and send appropriate replies, use attachments. I can recognise key features of different layouts and consider how to meet the needs of the audience (e.g. poster, newspaper, menu) I can select areas of a painting, copy and paste to make repeating patterns. Resize elements. Investigate reflection tools etc I can develop greater control over the digital stills video camera and use the enhanced tools I can discuss and evaluate the quality of my own and others' captured images and make decisions I can create a short, animated sequence from captured I can capture "footage" from different devices into simple movie editing software. I can add simple titles and credits, music and narration. I can use IT to select and record voice and sounds I can select, import and edit existing sound files in sound editing software / app. I can use music software or app to experiment with capturing, repeating and reordering sound patterns. I can use music software / app to create a simple multipart percussion composition I can use ICT to create and perform sounds or music that would otherwise not be possible live – e.g.. playing a multi-part piece or a very fast piece I can understand that copyright exists on most recorded music	I can format and edit work to improve clarity and mood. I can independently create, send and respond to email, blogs and forums. I can produce formal or informal e-messages appropriate to a task or to solve problems I can develop my use of hyperlinks to produce more effective interactive, nonlinear presentations. I can select and import sounds from my own recording, create their own effects and music and import from other sources. I can create images using a range of techniques I can make decisions to capture, store, retrieve and edit digital images for a particular purpose. I can independently plan and create a short, animated sequence to communicate a specific idea, using a storyboard and timeline. I can combine stills, video and sound using a video editing package I can make use of transitions and special effects when editing films and understand the effect they will have on the audience. I can choose the most effective app to present information and explain my choices.	I can format and edit work to improve clarity and mood. I can independently create, send and respond to email, blogs and forums. I can produce formal or informal e-messages appropriate to a task or to solve problems I can talk about different forms of electronic communication, their appropriateness to tasks, advantages and disadvantages. I understand how pages are linked together and recognise the need for clarity. I can develop my use of hyperlinks to produce more effective interactive, nonlinear presentations. I can make effective use of transitions and animations and consider the effect on the audience and appropriateness. I can select and import sounds from my own recording, create their own effects and music and import from other sources. I can create images using a range of techniques I can make decisions to capture, store, retrieve and edit digital images I can explain the difference between object based graphic packages and paint packages I can independently plan and create a short, animated sequence to communicate a specific idea, using a storyboard and timeline. I can combine stills, video and sound using a video editing package I can make use of transitions and special effects when editing films and understand the effect they will have on the audience. I can make images and movies in a variety of formats, understanding some of the differences, and share on the internet (with due regard for safety). I can choose the most effective app to present information and explain my choices for not using other apps for this purpose.

Information Technology (multimedia)		I can develop skills in manipulating sounds I can independently select and use a variety of appropriate devices to record musical and non-musical sounds. I can create my own sounds and compositions to add to my work I can use IT to perform sounds or music that would otherwise not be possible live I can use IT to produce music for a specific purpose, considering the impact on the audience I can explain why copyright should be respected when selecting music samples. I can plan, create, edit and publish a podcast.	I can independently select, edit and combine sound files from internet sources to create a podcast file. I can develop skills in manipulating sounds I can independently select and use a variety of appropriate devices to record musical and non-musical sounds. I can upload and download projects to the Seesaw I can create my own sounds and compositions to add to my work I can use IT to perform sounds or music that would otherwise not be possible live. I can use IT to produce music for a specific purpose, considering the impact on the audience. I can explain why copyright should be respected when selecting music samples. I can plan, create, edit and publish a podcast and use sound to blend the podcast together,

Information Technology (data handling)	I can develop key questions and key words to search for specific information I can use information purposefully to complete specific tasks I can understand the dynamics of search engines I can use search engines for different media I understand a website has a unique address I can explain that some information found through searching is more relevant than others I can describe the process of finding specific information I can collect appropriate information, enter it into a database or spreadsheet and use this to answer simple questions I can generate and compare different charts and graphs (using graphing software / app, spreadsheet etc) I can explain that different graphs are used for different purposes I can organise, present, analyse and interpret the data in tables, tally charts, charts / graphs, using IT where appropriate I am beginning to develop skills to identify what data needs to be collected and design a questionnaire or survey to aid its collection I can change the contents of cells in a spreadsheet to explore "What if …" questions I can use a spreadsheet to record data and produce graphs I can use a spreadsheet to explore simple patterns (e.g. in a number square) I understand the need to structure information properly in a database or spreadsheet I know, understand and use the vocabulary: file, record, field, data and information.	I can use strategies for finding information I consider the effectiveness of search results I can skim and select information checking for bias and different viewpoints I understand the possible impact of using incorrect data. I can modify a search pattern in order to find specific information. I can check for accuracy by checking data, using different views, search tools, and graphing. I can identify and correct inaccuracies. I can solve complex enquiries involving selecting, processing, and presenting data; drawing conclusions from the process I can construct, refine and interpret frequency tables; bar charts with grouped discrete data; line graphs; interpret pie charts. I can recognise the consequences of data not being accurate, relate to the wider world I can enter formulae into a spreadsheet and modify the data, (simple calculations + - × ÷)	I can use strategies for finding information I consider the effectiveness of search results and refine where necessary. I can skim and select information checking for bias and different viewpoints I can talk about validity and plausibility and appropriateness of information, especially on the internet. I recognise the impact of using incorrect information in my work. I understand the possible impact of using incorrect data. I can use complex searches (and/or, is greater/less than) to search data when looking for relationships and patterns in data. I can modify a search pattern in order to find specific information. I can check for accuracy by checking data, using different views, search tools, and graphing. I can identify and correct inaccuracies. I can solve complex enquiries involving selecting, processing, and presenting data; drawing conclusions from the process I can construct, refine and interpret frequency tables; bar charts with grouped discrete data; line graphs; interpret pie charts. I can recognise the consequences of data not being accurate, relate to the wider world I can enter formulae into a spreadsheet and modify the data, (simple calculations + - × ÷) I can make predictions and changes and check results

Digital Literacy (e-safety)	I make sensible decisions if content is inappropriate or upsetting I explain the Internet contains fact, fiction and opinion and begin to distinguish between these. I am aware of online marketing and begin to develop strategies to deal with it I can explain why we must keep personal information and passwords private when communicating online. I can explain that online communication is not always confidential and that it can be monitored. I know that anyone can create a user showing any age or gender and people you meet online may not be who they say they are. I can create a personal profile with an alias and avatar rather than real name and photograph I can make decisions about when an email should not be opened or messages ignored. I can tell you how to deal with unpleasant communications via mobile, text, chat rooms I understand why you should only befriend people you know and trust never to meet up with "friends" you know only online. I can choose when to use appropriate writing conventions for electronic communication I can explain the importance of copyright issues and plagiarism; that taking text or images from some sites may be stealing other people's work. I know why it is important to respect others' feelings and electronic work.	I understand that some internet material is age related I can demonstrate safe practice when selecting images or content for uploading to a personal profile I understand some malicious adults use the internet to make contact and groom young children. I know how to report any suspicions (CEOP report abuse page). I know the differences between public social networking sites and closed learning environments, I understand the purpose of passwords, that passwords should never be shared, I can explain the importance of appropriate online behaviour and that online bullying is unacceptable. I can explain why it is important to create a positive "digital footprint" I have an awareness of the need to check for copyright when downloading content from the internet.	I understand that some internet material is age related (especially games) and the implications for ignoring such guidance. I can demonstrate safe practice when selecting images or content for uploading to a personal profile I understand some malicious adults use the internet to make contact and groom young children. I know how to report any suspicions (CEOP report abuse page). I can explain clearly the differences between public social networking sites and closed learning environments, I understand the purpose of passwords, that passwords should never be shared, I understand the importance of appropriate online behaviour and that online bullying is unacceptable. I can explain why it is important to create a positive "digital footprint" I have an awareness of the need to check for copyright when downloading content from the internet.