	Computer Science	Digital Literacy	E-Safety	Information Technology
Early Years	• I can identify some of the steps needed to achieve a simple task – e.g. brushing teeth • I understand that people and computers follow instructions • I can follow instructions and correct mistakes • I know that devices and objects on a screen can be controlled • I recognise that a printer is connected to a computers and devices	• I understand that the internet can be used to play and learn • I know that the things I create digitally can be shared with others • I recognise purposes for using technology at home and in school (e.g. TV for watching movies; interactive whiteboard for showing work in school) • I can match images to appropriate sounds (e.g. 'duck' to 'quack'	• I understand that a password protects a device from someone else using it • I understand that an adult should be present when I access online material • I know who to go to for help if I need it when using the world wide web • I understand to take turns when using technology •I know that care is needed when using equipment	• I know that Information Technology (incl. online tools) can help me do things • I can use a mouse to move objects • I can use a keyboard for basic activities • I can use a camera, sound recorder or mobile device to collect photographs and/or sound • I can recognise and can use the common icons for save and print
Y1	• I can read a set of instructions and sometimes predict the correct outcome • I can produce instructions but sequence them incorrectly or make assumptions • I understand that humans and computers follow instructions • I can read a set of instructions and usually predict the correct outcome • I can produce a set of instructions that others can usually follow • I understand that computers follow instructions given in a precise way • I can read a set of instructions and predict the correct outcome • I can produce an accurate set of instructions using agreed language that others can follow • I understand that computers are not smart and cannot think for themselves	• I can access a website using desktop shortcuts • I can navigate simple websites with support • I can get simple information from the world wide web • I can use drawing tools to say something • I can move around a website using buttons and image links • I can find answers to simple questions using a website • I can use drawing and text tools to give information • I can visit a website by typing its address • I can move around a website using links (images and words) and buttons • I can talk about how I found information on a website • I can make choices about the kind of information I collect from websites • I can use words and pictures to make simple presentations	• I know that some information is personal (E.g. name& address) • I can tell you why I do or don't trust someone, but sometimes get it wrong • I understand that personal information should only be given to trusted people but sometimes trust the wrong people. • I can give a few examples of information that is personal(E.g. hobbies) • I can usually point out what it is about someone that makes me not trust them • I know that personal information should only be given to people I trust • I understand that a wider range of information is personal (E.g. regular attendance at a specific place) • I can give examples of a variety of characteristics of trustworthy people and tell you why I think the way I do • I know that personal information should only be given to trusted people	• I can type single words using a keyboard • I can use a mouse or touch to select and drag objects around a screen with help • I can create digital content using IT tools • I can save a file with help • I can enter simple sentences using a keyboard • I can use a mouse or touch to select and drag objects around a screen • I can select icons and items • I can print work • I can save work with help • I can talk about how I have used a computer to create things • I can use IT to create sentences that communicate meaning • I can create and save different versions of my work • I can compare and create work using IT with other ways • I can explain why a particular tool has been chosen and its effect
Y2	• I know that programming applications (e.g. Scratch) can be given commands to produce specific effects on screen • I can produce a command that achieves a simple effect (e.g. movement) • I can plan and give direct instructions to make things happen (e.g. playing robots) • I can produce a sequence of instructions that result in planned outcomes. • I can program a short a sequence of commands that results in a planned effect • I can program and test a simple program • I can create algorithms to solve simple problems • I can predict the behaviour of simple algorithms and programs.	• I can use a shared link to find a website8I can move around a website using hyperlinks and the back button with help • I can find answers to questions using information in a website with help • I can use email with support for communication and collaboration • I can enter the address (URL) of a website with support • I can identify some links within web content and move around them with purpose • I am starting to use a range of apps and devices without help • I can talk about how useful particular websites have been • I can use email to talk and work with someone else	• I know that personal information should only be given to trusted people • I can talk about the importance of staying safe online • I can give lots of examples of what information is private • I can talk about some of the ways to use computers safely • I ask permission before using email clients or apps • I can use computers and devices responsibly • I can tell you some of the ways to report things I see or hear online that makes me uncomfortable, worried or upset	• I can enter simple sentences using a keyboard or touch • I can use a mouse to point, click and drag objects. • I can save files with direction • I can explore a limited range of software • I can write and send a simple email with help • I can enter sentences using keyboard or touch • I can use a mouse of touch input to make selections and move objects • I can save, print and retrieve work • I can use software, computers and devices to make simple presentations and create things • I can compose and send a simple email

	• I understand that computers follow algorithms and they are implemented as programs • I can program a short sequence of commands, with repetition (loops) that results in a planned effect • I can debug simple programs by correcting mistakes when things do not go as planned	• I can choose a website based on how useful it is • I can show you how I found specific information on a website • I can choose carefully the information I get from websites • I can choose the right apps for a task • I can use email with attachments	• I can talk about some of the dangers of sending and receiving emails	• I can use tools to create simple presentations that communicate meaning • I can make choices about applications and tools to use for a particular purpose • I can locate, edit and save different versions of my work • I can compose and send emails attaching a variety of media • I understand the circumstances where some forms of communication may be preferable to others
Y3	• I know that programming applications (e.g. Scratch) can be given commands to produce specific effects on screen • I can produce a sequence of blocks that achieves a simple effect (e.g. move a sprite around the screen) • I can plan a sequence of instructions • I can give a sequence of instructions, some of which are repeated (repetition) and involve choices (selection) e.g. if..then, to make things happen • I can program a sequence of commands that results in a planned effect • I can design and develop basic computer programs • I can combine sequences of commands into procedures (blocks of code) that are repeated • I can test and correct simple programs • I can evaluate their own work and comment on improvements • I can program and test a simple program	• I can move around a website using hyperlinks and the back button • I can type web addresses (URLs) into a web browser • I can create bookmarks/favourites • I can recognise patterns in everyday activities • I can point out suitable information to present • I can find information by moving around a web page using hyperlinks and the back button • I can confidently type web addresses into a web browser • I can question the reliability of information I found online • I can create bookmarks/favourites and use them to access websites • I can print web pages and copy and paste information into other applications • I can describe how I use technology at school and at home • I can judge my own and other peoples work and talk about how they could be made better • I know that people can communicate and collaborate online8 • I can use search technology to find things out • I can double check information found online on one website against another • I can carefully select information from a range of websites	• I can talk about some ways I can keep myself safe when using ICT • I can use ICT to communicate, talk about some of the risks and try to keep safe • I understand that there are adverts online • I can tell you why we need passwords and that they should be kept safe • I can follow some e-safety rules • I can point out an online advert • I can give examples of right and wrong things to dousing computers and online • I can tell you why information I find online needs to be checked • I can check information I find online • I can choose information from a different websites carefully • I can explain how to avoid adverts tricking	• I can use features such as spell check to help edit my work • I can cut and paste text • I can create hyperlinks in documents • I can collect data to enter in a database • I can combine graphics with text • I can use appropriate effects and re-size graphics • I can copy text from one place to another • I can copy images • I can save and retrieve work to/from a network location • I can combine graphics with text • I can use bold, italic and underline • I know how to undo and redo • I can align text left, right, centre and justify and know to use them • I can combine graphics with text
Y4	• I can identify when it is possible to use the repeat command • I can create algorithms with steps, some of which are repeated • I can suggest what they think might happen if an algorithm or program were executed (not always accurately) • I know that computers take input and produce output • I can use sequence, selection and repetition in computer programs	• I can navigate around a website using hyperlinks and the back button • I can enter URLs into an address bar of a browser with support • I know that not all information on the Web is correct • I know that internet search engines search for websites • I understand that a computer network means connected computers	• I can talk about different ways I can keep myself safe when using ICT • I know that not all information provided on the world wide web is correct • I understand that I should get permission for sharing some things online • I can tell you about why I should use secure passwords and why I need to keep them private	• I can use features such as spell check to help me edit my work • I can cut and paste text • I can create hyperlinks in document • I can use the more advanced features of applications (e.g. word processing or presentation software) to help me match my work to an audience • I can send an email • I can reply to an email

	• I can predict the outcome of a given algorithm or program and correctly identify if repetition is involved • I understand the difference between the internet and internet services e.g. the world wide web • I can identify a number of computing devices inside and outside of the classroom and identify some common forms of input and output • I understand that computers store data as number • I can write an algorithm to produce a given effect using repetition • I can accurately predict the outcome of a range of algorithms and programs • I can explain how a programmed effect has been achieved • I can test, debug and refine algorithms and programs • I can identify some common internet services that use the internet (e.g. online gaming or voice over internet) • I know that a computer takes input, processes it and produces output • I can identify a variety of computing devices and a number of inputs and outputs (e.g. touch, sound) • I know that computers store and manipulate data as a series of ones and zeros and that this is called binary	• I understand that you can use the internet for activities other than web browsing • I can confidently enter URLs into the address bar of a browser • I know that not all information online is reliable and that it needs to be checked • I know that a computer network is a number of computers and devices that are connected • I can suggest a range of activities that you can do using the internet, including web browsing • I can find information by navigating around a number of websites using hyperlinks and buttons • I can question the credibility of information given on websites • I know that internet search engines give a list of websites based on key words • I can cross-check information provided on one website against that provided on another	• I can use ICT to communicate, talk about some of the risks and act to avoid them • I can tell you why information found online needs to be checked • I can give examples about what types of things online I might need permission to use • I can use safety measures when using technology and working online (E.g. logging out of devices after use) • I can use searches to find information I'm looking for and check if its useful and believable • I check if the information I find online is right • I can tell you what copyright means	• I can choose and use the appropriate advanced features of word processing or presentation software to better match my work to an audience • I can carry out multi-conditioned searches to find answers to a variety of questions with assistance • I can sort data to answer question
Y5	• I know that computer programs contain commands that achieve a specific action • I can write or amend computer programs to produce specific actions with assistance • I understand that web pages are linked together and are part of the world wide web • I can write and amend computer programs • I can program a number of algorithms that achieve a specific outcome • I can use repetition, variables and conditional statements in computer programs • I can test computer programs and correct any errors • I know that the World Wide Web consists of many websites and that web pages can be accessed using the internet • I know that web pages are formatted using a type of 'code'	• I understand that you can use the internet for activities other than web browsing • I can find information by navigating round a number of websites using links and buttons • I know that not all information available online is reliable and that it needs to be checked, but I don't always check it • I know that search engines give a list of websites based on search terms • I can check information I find online • I can use search technology to find things out • I can suggest a number of activities you can use the internet for (e.g. online gaming, voice over internet, email etc) • I can cross-check information provided on one website against multiple alternative sources • I can create digital content for specific purposes • I can discuss opportunities for communication and collaboration online	• I can use some safety measures when using technology and working online (E.g. logging out) • I can use searches to find information I'm looking for and check if its useful and believable • I check if the information I find online is right • I know that people can be mean and nasty online • I can tell you why personal information should only be given to trusted sources • I know that some information on the internet maybe misleading or inaccurate and I check information I find • I can use technology and online services to communicate and collaborate, identify some of the risks and act to minimise them • I can give examples about what is good and bad behaviour online	• I understand that information in the form of text, sound and pictures can be linked together • I can create simple digital content (e.g. a webpage) incorporating text and graphics, sometimes with assistance • I understand that information in the form of text, sound and pictures can be combined to create digital content and communicate with an audience • I recognise the audience when designing and creating digital content • I can create digital content that incorporates text and images • I understand that digital content needs to be planned to take account of the intended audience, the content and the layout of information • I can discuss the reasons I made the choices I did for my digital creations including content, media I used and the layout

	• I can write and amend more complex programs to create a variety of outcomes • I can program algorithms that achieve a range of specified outcomes • I can create efficient programs by designing solutions using abstraction (e.g.using procedures in the form of broadcasts in Scratch) • I can test, debug and refine computer programs • I understand that the World Wide Web is one of a number of services provided on the internet • I understand basic HTM tags and CSS style	• I can use a variety of services provided by the internet (e.g. email, VOIP, gaming, video chat) • I can improve my work based on feedback and can comment on the success of my work • I can create digital content for specific purposes by combining software applications and internet services to communicate with an audience (e.g. creating web pages)	• I can talk about the different ways people can be bullied online • I can give lots of examples about I can stay safe using technology and online and how to report anything I'm worried about • I can communicate and work effectively and safely online • I can use search criteria efficiently find information online and check if its accurate and reliable • I know what to do if I come across cyberbullying	• I can develop and refine digital content for a specified audience
Y6	• I can write or amend computer programs to produce specific actions • I understand that the same 'problem' can be solved in different ways • I know that commands can be given in shorter form • I can use iteration (repeats and loops) in algorithms and program • I can write or amend computer programs to produce specific actions • I understand that the same 'problem' can be solved in different ways • I know that commands can be given in shorter form • I can use iteration (repeats and loops) in algorithms and programs • I can write and amend more complex computer programs to create a variety of outcomes • I can decompose 'problems' by splitting them into smaller 'problems' and designing solutions for each part • I can use iteration (repeats and loops), variables and conditional statements (if..then) in computer programs • I can test computer programs and correct most error • I can create and use efficient methods of iteration, and nested conditional statements (if..then..if etc.) • I can systematically test computer programs for bugs and make them work as expected	• I can use internet services other than web browsing (e.g. VOIP or email) • I can talk about opportunities for communication and collaboration online • I can find relevant information online and make some checks for accuracy and reliability • I understand that internet search engines find information and list search results in the order of popularity • I can remix web content, sometimes with help • I can recognise an audience when creating digital content • I can communicate and collaborate using technology and online services • I can create web content using basic HTML • I know that internet search engines use algorithms to find web content (e.g. web crawling) • I know that search engines are organised in order of popularity • I can use search technology and clear search terms to view web pages and obtain information and data • I can use a number of internet services (e.g. email, voice over internet etc) • I can create digital content for specific purposes and audiences • I can use feedback to improve digital content • I understand how internet search results are ranked • I understand that computers on networks (incl. the internet) have unique addresses (IP	• I can identify a range ways they can keep themselves safe using technology and online services and know how to report any concerns • I can communicate and work safely online • I can use search criteria efficiently to find information online and check it for accuracy and reliability • I can use passwords • I know that people can be bullied online • I can use digital tools to communicate and collaborate effectively online • I can identify some of the risks associated with work and leisure in a digital society and act to minimise them • I can find information online and check it for accuracy and reliability • I can talk about the importance of screen locks that protect devices • I can create passwords that might be difficult to guess • I can make decisions about information sharing on the sites and services I use • I can identify situations of harassment or bullying online • I can identify situations when it's better to communicate face-to-face rather than to message • I know that there are tools available to report online abuse • I can use a variety of technologies and online tools to communicate and collaborate safely and effectively	• I understand that information in the form of text, sound and pictures can be combined to create digital content • I can create digital content (e.g. a webpage) that incorporates text, images and sound • I can plan, design and create digital content that incorporates text, images and sound and communicates with an audience • I can discuss the rationale behind my designs • I can develop and refine digital content • I can create digital content that incorporates images, sounds and text and is organised into pages that matches the needs of a specified audience • I can critically analyse digital content and make judgements about its suitability for a specific audience

	• I can critically analyse algorithms and programs and suggest more elegant solutions -e.g. by using abstraction to suggest single solution that could be used to solve a number of problems (i.e. procedures) • I can create procedures that call on other procedures (e.g. by using broadcasting blocks)	addresses) and that data is transmitted in packets • I can design and create web pages using HTML and CSS • I can design criteria for evaluating digital content • I can identify improvements and refine my own and other's work	• I can demonstrate responsible use of technology and online tools • I know a number of risks associated with work and leisure in a digital society and act to minimise them • I know how to create passwords that are hard to guess, yet easy to remember • I can talk about specific ways to respond to bullying when I see it • I can choose how to respond from options that feel safe and appropriate to me • I know how to respond to negativity online • I can talk about when and why it would be appropriate to use online reporting	