



Barrowcliff School
Skills Progression Grid
COMPUTING

	Computer Science (CS)	Information Technology (IT)	Digital Literacy (DL) including e-safety
EYFS	<ul style="list-style-type: none"> -Follow and give simple instructions in order, with help -Make a programmable toy move but not always as planned -Use a limited set of software and tools to make something happen on screen -Identify simple repeating patterns -Sort a small set of objects according to criteria, sometimes with support -Organise data into simple charts and graphs with support -Answer questions using data with support -Create a short sequence of instructions -Change instructions to create a different outcome -Make choices on screen about which icons and buttons to press -Create, recreate and continue patterns -Construct simple pictograms -Know that pictures on a pictogram represent numerical values -Read, write, draw simple instructions and predict the outcome 	<ul style="list-style-type: none"> -Use a keyboard sometimes with support -Use a mouse or touch to make choices with help -Create some digital content with help -Explore a range of digital content, technology and tools -Relate some computer models to real life -Explore simple computer models with support -Use the mouse or touch to select icons and items -Move onscreen objects -Talk about the technology used at home and in school -Operate digital equipment -Use technology and digital content to play and learn -Understand that computers can be used to represent real and imaginary situations -Explore simple computer models and talk about what happens if... -Use a mouse or touch to select, tap/click and drag objects round a screen -Enter simple words using a keyboard and make choices 	<ul style="list-style-type: none"> -Create basic shapes with digital tools with support -Understand that we can get information from pictures and video as well as words -Record basic sounds (audio) with support -Interact with multimedia software to make something happen on screen -Explore, access and make choices with digital content -Understand that they should get permission from an adult before going online -Understand that they should not talk to anyone they do not know online -Understand the need to be careful using computers but can sometimes be careless -Share computers and devices with others but not always fairly -Have created shapes and text using digital tools -Used technology to show learning -Talk about the different kinds of information (pictures, words, videos, sound) -Create simple compositions and record /playback audio -Find information using a basic search

	<ul style="list-style-type: none"> -Plan a set of instructions for a programmable toy and make it move -Correct mistakes if instructions are incorrect -Talk about how instructions can be improved -Describe patterns and relationships -Compare data using simple charts and graphs -Suggest different ways in which data could be organised or displayed -Use graphs to answer a range of questions -Create own questions to be interpreted from the data on a graph -Make comparisons between data on a graph 	<ul style="list-style-type: none"> -Create, save and print work -Experience a wide range of technology and tools to play and learn -Explore a variety of computer models 	<ul style="list-style-type: none"> -Know how to tell an adult if they find anything worrying online -Be kind to friends -Talk about how much time they spend using computers and devices -Share the use of computers and devices -Access a website using shortcuts -Navigate a website using buttons and obvious links -Talk about information they have found from images, text, videos and sound -Understand that audio can convey information -Explore the features of audio digital audio recording devices/tools -Use a combination of simple text and drawing to demonstrate their learning -Put together simple multimedia presentations to communicate ideas -Obtain information online and make choices about the kind of information they collect -Always ask for permission before going online -Seek support when they are unsure about digital content -Talk openly about the time they spend using computers and devices and the content used/ viewed
Year 1	<ul style="list-style-type: none"> -Read a set of instructions and predict the outcome (sometimes/ usually/ always) -Produce a set of instructions to be followed by others (sometimes/ usually/ always, with agreed language) 	<ul style="list-style-type: none"> -Enter words using a keyboard -Use a mouse to point, click and drag objects around a screen (with help) -Create digital content using IT tools -Save a file with support 	<ul style="list-style-type: none"> -Obtain simple information from the world wide web -Use digital drawing tools to express something

	<p>-Understand that computers follow instructions in a precise way</p>	<ul style="list-style-type: none"> -Explore a limited range of tools -Access a website using desktop shortcuts -Navigate simple websites with support -Enter simple sentences using a keyboard -Use a mouse to select icons and items -Print and save work with assistance -Navigate a website using buttons and image links -Create and save different versions of their work -Compare creating their work using IT methods with manual methods -Explain why a particular tool has been chosen and its effect -Access a website by typing a simple URL -Navigate a website using hyperlinks, buttons and image links 	<ul style="list-style-type: none"> -Use IT to create sentences that mean something -Know that some information is personal (eg. name and address) -Identify some characteristics of trustworthy/untrustworthy people but give appropriate justification -Understand that personal information should only be given to trusted people but trust can be misplaced -Find answers to simple questions using a website -Use drawing and text tools to impart information -Talk about how they have used a computer to create things -Understand that various information is personal -Talk about how they found information from a website -Make choices about the kind of information they collect from websites -Use a combination of text and drawings to make simple presentations -Understand that a wider range of information is personal (eg. regular attendance at a specific place) -Identify a variety of characteristics of trustworthy people (to whom personal information can be given) and justify opinions appropriately
<p>Year 2</p>	<p>-Produce a sequence of blocks to achieve a simple effect</p>	<p>-Navigate a document using arrow keys and a mouse</p>	<p>-Choose a website based on how useful it is for a specific purpose</p>

	<ul style="list-style-type: none"> -Plan and give direct instructions to make things happen -Program a short sequence of commands that results in a planned effect -Program and test a simple program -Create algorithms to solve simple problems 	<ul style="list-style-type: none"> -Use the backspace and delete buttons to remove text -Use tools to create simple presentations that communicate meaning -Make choices about applications and tools to use for particular purposes -Locate, edit and save different versions of their work -Navigate around a website using hyperlinks and the back button -Type web addresses into a web browser -Create internet favourites - Combine graphics with text -Use appropriate effects and re-size graphics -Copy text from an internet page to a document -Copy internet images from a webpage 	<ul style="list-style-type: none"> -Demonstrate how they found specific information on a website -Be discerning about the information collected from websites -Select appropriate applications to help achieve a specific task -Can identify suitable information to present -Identify some ways in which they can keep themselves safe when using ICT -Use ICT to communicate, identify some of the risks and act to minimise them -Begin to use a range of applications on computers and devices independently -Talk about how useful particular websites/applications have been to their work -Understand that a wider range of information is personal (eg. Regular attendance at a specific place)
<p>Year 3</p>	<ul style="list-style-type: none"> -Design and develop basic computer programs -Combine sequences of commands into procedures that are repeated -Test and correct simple programs -Evaluate their own work and comment on improvements 	<ul style="list-style-type: none"> -Save, print and retrieve work -Use software, computers and devices to make simple presentations and create things -Enter a URL for a website with support -Identify some links within web content and navigate with purpose -Combine graphics with text -Use bold, italic and underline -Know how to undo and redo -Align text left, right, centre and justify and know how to use them -Insert images and manipulate them -Assign desktop shortcuts to applications and work 	<ul style="list-style-type: none"> -Create digital content that communicates meaning -Identify some of the ways to use computers safely -Follow ICT guidelines and know that passwords are needed and should be kept safe -Know that people can communicate and collaborate online -Use search technology to find things out -Use a range of tools to communicate and express ideas -Cross-check information found on one website with another source

			<ul style="list-style-type: none"> -Carefully select information from a range of websites -Recognise what is acceptable/ unacceptable behaviour when using online technology -Know that some online information may be misleading or inaccurate and that it needs to be checked
Year 4	<ul style="list-style-type: none"> -Design an algorithm to create a given effect using repetition -Accurately predict the outcome of a range of algorithms and programs -Test, debug and refine algorithms and programs -Use sequence, basic selection and repetition in programs -Explain how a programmed effect has been achieved -Talk about improvements that could be made to programs 	<ul style="list-style-type: none"> -Use the more advanced features of applications to help match work to an audience -Send an email -Reply to an email -Use the search facility in a database to find the answers to questions -Carry out searches involving more than one condition to find answers to a variety of questions, sometimes with help -Confidently enters URLs into the address bar of a browser 	<ul style="list-style-type: none"> -Understand that a computer network means connected computers -Understand that you can use the internet for activities other than web browsing -Know that not all available online information is reliable, and needs checking -Find information by navigating around a number of websites using hyperlinks and buttons -Know that internet search engines give a list of websites based on search terms -Cross-check information found on one website against that provided on another -Demonstrate the use of basic safety measures when working online (eg. when logging out) -Know the need to use secure passwords and keep them private -Use ICT to communicate and collaborate, identify some of the risks and act to minimise them -Know that not all of the information provided on the world wide web is accurate so it needs to be checked -Use appropriate search criteria to find information and check its usefulness

Year 5

- Explain how a programmed effect has been achieved
- Write and amend computer programs
- Use repetition, variables and conditional statements in computer programs
- Test, debug and refine algorithms and programs
- Identify some common internet services that use the internet (eg. Gaming)
- Know that computers take input, process it and produce output
- Identify a variety of computing devices and a number of inputs and outputs (eg. touch/ sound) and know that computers store data as a series of zeros and ones (binary)
- Program algorithms to achieve a range of specified outcomes
- Create efficient programs by designing solutions using abstraction (eg. Scratch broadcasts)

- Understand that information in the form of text, sound and pictures can be combined to create digital content and communicate with an audience
- Recognise the audience when designing and creating digital content
- Create digital content that incorporates text and images.
- Choose and use the advanced features of word processing or presentation software to increase their efficiency when matching work to audience
- Carry out multi-conditioned searches in databases to find answers to a variety of questions with assistance
- Use the sort facility of a database to answer questions
- Create own questions to be answered by searching a database
- Understand that digital content needs to be planned to take account of the audience, the content and the layout of the information
- Discuss the rationale behind their digital creations including content, media used and layout
- Develop and refine digital content for a specified audience

- Know that a computer network consists of a number of computers and devices that are connected
- Suggest a range of activities you can do using the internet, including web browsing, gaming and emails
- Find information by navigating around a number of websites using hyperlinks and buttons
- Question the credibility of information found on websites
- Know that internet search engines give a list of websites based on key words
- Cross-check information found on one website against that found on another
- Use search technology to find things out
- Create digital content for specific purposes by combining software applications and internet services to communicate with an audience (eg. webpages)
- Demonstrate the use of basic safety measures when using technology and working online (eg. logging out of devices)
- Use appropriate search criteria to find relevant information and check its plausibility and usefulness
- Know that personal information should only be given to trusted sources
- Use ICT to communicate and collaborate, identify some of the risks and act to minimise them
- Know that some of the information provided on the world wide web may be

			<p>misleading or inaccurate so it needs to be checked</p> <ul style="list-style-type: none"> -Can discuss opportunities for communicating and collaborating online -Can use internet services other than web browsing (eg. emails) -Improve their work based on feedback and can comment on the success of their work -Identify a range of ways in which they can keep themselves safe using technology and online services and know how to report any concerns -Communicate effectively and safely online -Use search criteria effectively, find information online and check it for accuracy and reliability
Year 6	<ul style="list-style-type: none"> -Write and amend computer programs to produce specific actions -Understand that the same problem can be solved in different ways -Know that commands can be given in a shorter form -Use iteration (repeats and loops) in algorithms and programs -Decompose problems into smaller problems before designing solutions -Use variables and conditional statements (if...then) in programs -Test computer programs and correct most errors -Use iteration and nested conditional statements (if...then...else) 	<ul style="list-style-type: none"> -Understand that information in the form of text, sound and pictures can be combined to create digital content -Create digital content (eg. a webpage) that incorporates text, sound and images -Plan design and create digital content to communicate with an audience -Be able to discuss the rationale behind their designs -Develop and refine digital content -Create digital content (text, sound, images) that is organised into pages for a specified audience -Critically analyse digital content and its suitability for a specific audience 	<ul style="list-style-type: none"> -Use internet services other than web browsing (eg. Email) -Discuss opportunities for communicating and collaborating online -Understand that internet search engines find information and list results in order of popularity -Remix simple web, content sometimes with support -Recognises an audience when creating web content -Identify a range of ways in which they can keep themselves safe using technology and online services and know how to report any concerns -Communicate effectively and safely online

	<ul style="list-style-type: none">-Critically analyse algorithms and suggest more elegant solutions-Create procedures that call on other procedures		<ul style="list-style-type: none">-Use search criteria effectively, find information online and check it for accuracy and reliability-Communicate and collaborate using technology and online services-Create simple web content using basic HTML-Know that internet search engines use algorithms to find web content (eg. Web crawling)-Use search technology and clear search terms to view webpages and obtain data-Use feedback to improve digital content-Use digital tools to safely communicate and collaborate effectively online-Identify some of the risks associated with work and leisure in a digital society and act to minimise them-Understand how internet search results are ranked-Understand that computers on networks (including the internet) have unique addresses (IP addresses) and that data is transmitted as packets-Design and create webpages using HTML and CSS-Design criteria for evaluating digital content-Identify improvements and refine their own work and other's work-Demonstrate responsible use of technology and online tools
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			-Find relevant information online and critically evaluate its plausibility and usefulness
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