

Llangyfelach Primary School



ICT Progression Model

(Skills & DCF)

Digital Citizenship

| Nursery / Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p><i>Discover that the Internet can be used to visit far-away places and learn new things. Compare how staying safe online is similar to staying safe in the real world and explain rules for traveling safely on the Internet.</i></p> <p><i>Learn how to search online by using the alphabet. Understand how to search for a specified letter of the alphabet on a children's directory site and apply the results of their alphabet search to create a picture dictionary.</i></p> <p><i>Understand that information can be shared with others online.</i></p> | <p><i>Recognize the kind of information that is private. Understand that they should never give out private information on the Internet and learn to create effective usernames that protect their private information.</i></p> <p><i>Define the key vocabulary term 'credit'. List some reasons why credit is important for an artist and give themselves proper credit on their own work.</i></p> <p><i>Understand that the Internet provides a means of communicating with real people. Describe how email messages are sent and received and demonstrate an appreciation of how real people send messages to one another on the Internet.</i></p> | <p><i>Basically understand what is personal data and recognise the need for usernames and passwords.</i></p> <p><i>Learn that the information put online leaves a digital footprint or "trail." Explore what information is appropriate to be put online and judge the nature of different types of digital footprints.</i></p> <p><i>Understand about the persistence of online data.</i></p> <p><i>Analyse online behaviours that could be considered cyberbullying. Explain how to deal with a cyberbullying situation and recognize the importance of engaging a trusted adult when they experience cyberbullying.</i></p> <p><i>Know where to go to do safe searches online. Know how to use links and keywords and understand the need for an adult presence when they go online.</i></p> <p><i>Learn to participate in different types of activities each day. Learn to find balance in the types of activities they participate in and consider the elements of screen and digital time that may lead to excessive use.</i></p> | <p><i>Understand the functions of passwords, identify strategies for creating and protecting secure passwords and create their own secure passwords using guidelines.</i></p> <p><i>Consider what it means to go online and use the Internet, compare and contrast how they are connected to different people and places, in person and on the Internet and demonstrate an understanding of how people can connect on the Internet by drawing a map of their online community.</i></p> <p><i>Know where to go to do safe searches online. Know how to use links and keywords and understand the need for an adult presence when they go online.</i></p> <p><i>Understand how to show respect in social situations. Recognize the importance of tone in both face-to-face and online communications and learn rules for writing clear and respectful emails by editing an email message.</i></p> <p><i>Identify five main parts of letter/email writing. Compare and contrast the format of letter writing to that of writing emails and proofread a draft of an email.</i></p> <p><i>Distinguish between information that is appropriate to give out and</i></p> | <p><i>Reflect upon offline responsibilities, examine their online responsibilities and learn that good digital citizens are responsible and respectful in the digital world (and beyond).</i></p> <p><i>Learn about the benefits of sharing information online, but also about the safety and security risks of sharing certain types of information. Understand what type of information can put them at risk for identity theft and other scams. Distinguish between personal information, which is safe to share online, and private information, which is unsafe to share.</i></p> <p><i>Empathize with those who have received mean and hurtful messages. Judge what it means to cross the line from harmless to harmful communication online and generate solutions for dealing with cyberbullying.</i></p> <p><i>Consider the role of video games and other digital screen activities as part of a healthy and balanced lifestyle. Develop an emotional awareness of the role of games and other digital / screen activities in their lives. Learn and practice strategies for moderating game play and other digital / screen activities.</i></p> <p><i>Define plagiarism and describe</i></p> | <p><i>Identify the characteristics of strong passwords, apply characteristics of strong passwords to create new passwords and create secure passwords with their family members.</i></p> <p><i>Establish expectations and norms for the group related to appropriate online behaviour, participate responsibly and respectfully in an online community and collaborate on a classroom motto about digital citizenship.</i></p> <p><i>Define what spam is, explore strategies for safely managing unwanted messages and identify different forms of spam.</i></p> <p><i>Explain the value of giving proper citations, name the components of an MLA style citation for different types of websites and create MLA style citations for online articles and professional sites.</i></p> <p><i>Recognize that photos can be altered digitally, and consider the upsides and downsides of this practice. They are also able to discuss how photo alteration can distort our perceptions and affect our self-image, along with analysing how advertising uses photo alteration to help sell products.</i></p> <p><i>Learn how to avoid unwanted</i></p> | <p><i>Compare and contrast online-only friends and in-person, face-to-face pals. Analyse why private information should not be given to anyone online without the permission of a trusted adult and debate how to respond if an online-only friend asks them personal questions.</i></p> <p><i>Compare and contrast their responsibilities to their offline and online communities, reflect on the characteristics that make someone an upstanding citizen and devise resolutions to digital dilemmas.</i></p> <p><i>Learn which information they should avoid sharing online because it is private, understand which kinds of websites have privacy policies, and why and practice checking websites they visit for privacy policies and privacy seals of approvals.</i></p> <p><i>Understand how online communication differs from face-to-face conversation. Gain an awareness of how the distinct attributes of online communication may contribute to inappropriate or bullying behaviour and recognise cyberbullying behaviour. Understand the crucial role played by bystanders, including themselves, in fuelling or stopping bullying behaviour – online and offline. Gain an</i></p> |

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| | | | <p><i>information better kept private, and to recognize how this may change in different contexts.</i></p> | <p><i>its consequences. Explain how giving credit is a sign of respect for people's work and articulate when it is acceptable to use people's work, and how to write a citation.</i></p> <p><i>Evaluate and be critical of website content.</i></p> | <p><i>search results. Use advanced search techniques and learn how to judge the legitimacy of a result or a website.</i></p> | <p><i>awareness of the impact of cyberbullying on targeted individuals and have knowledge of the appropriate action to take when cyberbullying occurs. Gain an awareness of rules for good digital citizenship.</i></p> <p><i>Compare and contrast gender stereotypes, evaluate online media messages that convey gender stereotypes and reflect on why gender stereotypes sometimes can be limiting.</i></p> <p><i>Define what it means to have a balanced lifestyle, determine whether their use of technology impacts upon their daily activities or their health and assess their own level of technology use and consider how it impacts on their lives.</i></p> <p><i>Empathize with the targets of cyberbullying. Recognize some of the key similarities and differences between in-person bullying and cyberbullying and identify strategies for dealing responsibly with cyberbullying.</i></p> |
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Problem Solving

| Nursery / Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p><i>Create a simple pictogram using suitable software.</i></p> <p><i>Explore simple digital games and use digital technology to support role play.</i></p> <p><i>Explore simple modelling and simulation games, improving mouse control and double click.</i></p> | <p><i>With support, collect, enter and graph data on a suitable computer application.</i></p> <p><i>Understand that computers can represent real or imaginary places.</i></p> <p><i>Use drag and drop applications that can provide a representation of real or imaginary situations.</i></p> <p><i>Understand that a computer application can allow us to make choices which can provide different outcomes.</i></p> | <p><i>Add data to a table and create a variety of graphs.</i></p> <p><i>With support, collect, enter and graph data on a suitable computer application and use to answer questions.</i></p> <p><i>Use a computer simulation and compare it with real life.</i></p> | <p><i>Recognise that a database is made up of many records that contain fields.</i></p> <p><i>Simply group, sort and graph database records to answer questions.</i></p> <p><i>Enter data in a spreadsheet and use it to create a graph.</i></p> <p><i>Enter simple formula in a spreadsheet.</i></p> <p><i>Use a prepared spreadsheet model to help them to answer questions.</i></p> | <p><i>Add and amend records in a database.</i></p> <p><i>Create a branching database to answer questions.</i></p> <p><i>Investigate the effects of changing variables in a model.</i></p> <p><i>Create and edit a graph from spreadsheet data.</i></p> <p><i>Create a simple spreadsheet formula and begin to format cells.</i></p> <p><i>Use a modelling application to create and manipulate objects in a 3D environment.</i></p> | <p><i>Design and amend 2D/3D computer models.</i></p> <p><i>Search a large online database following a particular line of enquiry.</i></p> <p><i>Create a database, adding records and amending fields as necessary.</i></p> <p><i>Produce graphs from spreadsheet data.</i></p> <p><i>Create formula using the four rules of number in a spreadsheet.</i></p> <p><i>Perform basic cell formatting in a spreadsheet.</i></p> | <p><i>Search a prepared database using < and >.</i></p> <p><i>Search a database on more than one variable using AND / OR.</i></p> <p><i>Create a database, conduct queries and sort records to answer specific questions from a survey.</i></p> <p><i>Add records to a collaborative database and search on more than one variables and graph the results.</i></p> <p><i>Use spreadsheet functions to help to simplify more complex mathematical problems.</i></p> <p><i>Create a spreadsheet model and investigate the effect of changing data.</i></p> |

Creating, Communicating and Collaborating

| Nursery / Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p><i>Recognise letters, numbers, space key, full stop and the shift key on a keyboard.</i></p> <p><i>Understand that by pressing or touching a letter/ number key, the corresponding letter/number will be displayed on the screen.</i></p> <p><i>Recognise some parts of the computer.</i></p> <p><i>Understand that work done on a computer can be saved.</i></p> <p><i>Understand that digital devices need to be handled with care.</i></p> <p><i>Aware of some of the different digital technologies around them and can make simple observations about their use.</i></p> <p><i>Aware that digital work can belong to others and can find the name of the author on digital work.</i></p> <p><i>Drag and drop objects and double click to select with a mouse.</i></p> <p><i>Aware that technology allows people to communicate with one another.</i></p> | <p><i>Recognise and use the shift key and caps lock, backspace key and spacebar.</i></p> <p><i>Use the enter/return key to move to a new line, and can use the cursor keys to move within the text.</i></p> <p><i>Use basic text formatting such as changing size, font and colour.</i></p> <p><i>With support to save and reopen their work.</i></p> <p><i>Aware of email / video conferencing as methods of communication.</i></p> <p><i>Use a web browser independently and perform a one word search for information.</i></p> | <p><i>Click and drag to select and format text.</i></p> <p><i>Open saved work.</i></p> <p><i>Delete using both the backspace and delete button.</i></p> <p><i>Format text using the align, bold, italic and underline functions.</i></p> <p><i>Insert an image, rotate and resize.</i></p> <p><i>With support, send and respond to a received email.</i></p> <p><i>Use a search engine to find information using more than one keyword.</i></p> | <p><i>Login to an online platform, create a document and perform basic formatting such as changing font style, size, bold, italic, underline and colour.</i></p> <p><i>Insert and resize an image into a document.</i></p> <p><i>Align objects on a document.</i></p> <p><i>Use a word processor to create and communicate information and ideas, and share the document with others.</i></p> <p><i>Add text and images to a desktop publishing document and reposition as necessary.</i></p> <p><i>Aware of some of the benefits to using digital communication (email) and are able to create and send emails.</i></p> <p><i>Scan a small list of suitable websites and skim to find relevant needed.</i></p> | <p><i>Manage and organise online folders and files.</i></p> <p><i>Use a spell checker.</i></p> <p><i>Create hyperlinks.</i></p> <p><i>Add and respond to comments on a collaborative document.</i></p> <p><i>Create, format and send an email to others with an attachment.</i></p> <p><i>Share a file with others in a variety of ways.</i></p> <p><i>Experiment with different keyword searches and compare their results. Refine searches by using multiple words, synonyms, and alternative words and phrases. Draw inferences to explain search results.</i></p> | <p><i>Upload files to an online storage area.</i></p> <p><i>Insert and format a table in a document.</i></p> <p><i>Cut, copy and paste text in several ways.</i></p> <p><i>Plan and create a word processed document, with a sense of purpose and audience, demonstrating a variety of word processing functions.</i></p> <p><i>Basically organise email contacts, and use cc to include another person in an email.</i></p> <p><i>Use instant messaging to communicate with others.</i></p> <p><i>Create a document adding text and image components and arrange appropriately on-screen.</i></p> <p><i>Print off or publish their work and evaluate its effectiveness.</i></p> | <p><i>Change the page orientation (portrait and landscape) and page margins.</i></p> <p><i>Share files electronically, collaborate and comment on others work.</i></p> <p><i>Submit work to an online classroom.</i></p> <p><i>Organise emails using folders.</i></p> <p><i>Communicate using video conferencing tools.</i></p> <p><i>Change the layering of objects on a page.</i></p> <p><i>Plan, create and refine their work, taking into account audience and purpose.</i></p> <p><i>Use the advanced search functions of a search engine and bookmark the results.</i></p> |

Digital Creativity

| Nursery / Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p><i>Interact and explore their environment with suitable digital technologies.</i></p> <p><i>Create a simple musical sequence.</i></p> <p><i>Create marks or drawings on screen using different colours.</i></p> <p><i>Simply explain how they could make improvements to their work.</i></p> <p><i>Navigate to a suitable program or application and open.</i></p> <p><i>Comment on their work describing what has been done and in relation to a single success criterion.</i></p> <p><i>Beginning to make simple choices about the device or application they would like to use.</i></p> <p><i>Understand that they can record and view video.</i></p> | <p><i>Use simple digital paint application features such as line colour, width and adding clipart and resizing.</i></p> <p><i>Use the paint fill tool.</i></p> <p><i>With support, combine text and image components.</i></p> <p><i>Record video with a suitable device.</i></p> | <p><i>Independently use hyperlinks to navigate through a multimedia presentation.</i></p> <p><i>Create an animation using a small number of frames.</i></p> <p><i>Combine text and image components to create a presentation or story.</i></p> <p><i>Record a short audio clip and play it back.</i></p> <p><i>Capture video, audio and still images and play them back on the device or mirrored to a larger screen.</i></p> | <p><i>Create a multimedia presentation, adding text, slides and run in presentation mode.</i></p> <p><i>Change slide background, delete and reorder slides.</i></p> <p><i>Plan, create and present a multimedia presentation.</i></p> <p><i>Talk about the computer games they enjoy playing and are aware of the PEGI ratings and age restriction guidelines.</i></p> <p><i>Take a photograph and add an effect.</i></p> <p><i>Resize and rotate an image.</i></p> <p><i>Recognise the copyright symbol and how it can protect artists and consumers.</i></p> | <p><i>Crop and make simple changes to a digital image.</i></p> <p><i>Add creative effects to a digital image.</i></p> <p><i>Apply a theme and insert slides with different layouts.</i></p> <p><i>Add animation to objects.</i></p> <p><i>Create hyperlinks to navigate a non-linear multimedia presentation.</i></p> <p><i>Plan and collaboratively create a non linear presentation for a purpose.</i></p> | <p><i>Create a simple stop-frame animation and can delete and move frames as necessary.</i></p> <p><i>Insert pauses into a stop-frame animation to improve quality.</i></p> <p><i>Pupils are able to plan, create and export a stop-frame animation.</i></p> <p><i>Import media and perform simple video editing.</i></p> <p><i>Add transitions to the video timeline and resequence media.</i></p> <p><i>Plan and create a video for a specific purpose.</i></p> | <p><i>Import and reorder digital media on a video timeline.</i></p> <p><i>Combine different digital media and edit a video.</i></p> <p><i>Plan, gather suitable digital media and create a video that meets the needs of the audience.</i></p> <p><i>Use an audio application to combine several audio tracks.</i></p> <p><i>Record and edit audio.</i></p> <p><i>Plan and gather suitable audio and create an audio programme meeting the needs of the audience.</i></p> |

Computer Science

| Nursery / Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p><i>Understand that devices can be given instructions.</i></p> | <p><i>Recognise and name parts of a computer or mobile device.</i></p> <p><i>Create a simple algorithm to make an object move and know that an algorithm is a set of instructions.</i></p> <p><i>Select a background and a character, and use a motion block to make an object move across the screen.</i></p> <p><i>Use a block to speed up or slow down an object.</i></p> <p><i>Make an object disappear.</i></p> <p><i>Add a new scene to their project.</i></p> | <p><i>Explain in simple terms where they have seen technology being used around them.</i></p> <p><i>Understand how block coding works and program a simple algorithm using block coding.</i></p> <p><i>Add multiple objects and scripts.</i></p> <p><i>Use the sound and motion blocks.</i></p> <p><i>Send a message from one object to another.</i></p> <p><i>Send multiple messages between objects.</i></p> <p><i>Create a simple project demonstrating a variety of coding skills.</i></p> | <p><i>Recognize the difference between input and output devices.</i></p> <p><i>Follow directional instructions.</i></p> <p><i>Use simple directional Logo instructions.</i></p> <p><i>Draw simple shapes with Logo instructions and begin to debug code.</i></p> <p><i>Use the Logo repeat function.</i></p> <p><i>Represent a solution symbolically as a flowchart.</i></p> <p><i>Expand their understanding of block coding and create a simple animation.</i></p> <p><i>Add a condition to a program.</i></p> | <p><i>Simply understand that an algorithm is a sequence of instructions or a set of rules that are followed to complete a task.</i></p> <p><i>Recognise, describe and discuss the advantages and disadvantages of the way technology is used around them.</i></p> <p><i>Use basic Logo instructions to create simple shapes.</i></p> <p><i>Use the penup and pendown commands.</i></p> <p><i>Create procedures.</i></p> <p><i>Combine a variety of Logo instructions for a purpose.</i></p> <p><i>Use coordinates, including negative numbers to correctly place a sprite.</i></p> | <p><i>Describe some of the positive and negative aspects of the use of technology.</i></p> <p><i>Place key computing events on a timeline.</i></p> <p><i>Basically understand how a computer stores data and can back up files to various drives.</i></p> <p><i>Create a program using "if do else" and detect and correct errors.</i></p> <p><i>Analyse and explain how an existing program works and use input from a keyboard or mouse to control part of a program.</i></p> <p><i>Use variables in the context of a game.</i></p> <p><i>Write and use simple procedures.</i></p> <p><i>Design a simple algorithm including the use of Boolean values.</i></p> | <p><i>Basically understand what the internet is and develop their understanding of how messages travel from one IP address to another.</i></p> <p><i>Basically understand what is a computer network.</i></p> <p><i>Explain why Bletchley Park played a very important part in the development of modern computing.</i></p> <p><i>Explore basic Scratch functions to control a sprite.</i></p> <p><i>Create an algorithm to support the making of a simple game.</i></p> <p><i>Use the if...then instruction.</i></p> <p><i>Code multiple sprites and create variables.</i></p> <p><i>Plan and create their own game in Scratch.</i></p> <p><i>Understand how an algorithm can help to represent a solution to a problem.</i></p> |