



Key Skills for Assessment – Saint Clare’s Catholic Primary School
Subject – Computing



EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> Complete a simple program on a computer. Interacts with age-appropriate computer software Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. 	<p>Create, manage and manipulate digital content Text and images</p> <ul style="list-style-type: none"> On a range of devices: Develop correct use of the keyboard (e.g. spacebar, backspace, delete, shift (not caps lock) and enter keys). Add captions to photos and graphics. Select text appropriately e.g. highlighting or clicking text to select. Make simple changes to text e.g. colour, style and size. Select text from word lists (if necessary). Select appropriate images to add to work. Word process short texts directly onto the computer (i.e. do not just copy up handwritten work). Navigate round text in a variety of ways e.g. mouse, arrow keys, touch, when editing work. Save and store work in an appropriate area, and be able to print, retrieve and amend it. Begin to add different forms of media together e.g. text and images in blogs or word processing documents. Talk about their use of graphics package and their choice of tools. <p>Digital Research - Searching</p> <ul style="list-style-type: none"> Locate specific, teacher defined, age appropriate websites through a favourites menu and /or by typing a website address (URL) into the 	<p>Create, Manage and Manipulate Digital Content-Sound</p> <ul style="list-style-type: none"> Explore a range of electronic music and sound devices and software. Be able to listen to and to select a sound from a bank of pre-recorded sounds. Use sound recorders, both at and away from the computer, to record and playback sounds e.g. voices, instruments, environmental sounds. Use software to explore and create sound and musical phrases for a purpose. Use basic editing tools to change recorded sounds (speed up, slow down, reverse, echo) to alter the mood or atmosphere. Use recorded sound files in other software applications. Be able to save sound files. Be able to share recordings with a known audience. <p>Electronic Communication</p> <ul style="list-style-type: none"> Contribute ideas to class and group emails. Send an email, using a subject heading, to a known member of the school community e.g. another class teacher, bursar. Open and reply to an email from a known person. Contribute to a blog, journal or forum on the school’s VLE. Develop an awareness of appropriate language to use in email and other 	<p>Images, Video and Animation</p> <ul style="list-style-type: none"> Use a range of devices to capture still and moving images for a purpose. These could include digital cameras, video cameras, iPads, microscopes and webcams. Discuss and evaluate the quality of their own and others’ captured images and make decisions whether to keep, delete or change them. Independently download and save images and video onto a computer. Independently upload images and movies from digital cameras and other devices to a computer and save in a relevant location. Be able to ‘resize’ images (pixels, resolution, aspect ratio and dimensions). Be able to use basic tools in a software package to change images according to purpose. Import music, stills or video into video editing software for a specific project. Arrange, trim and cut clips to create a short film that conveys meaning. Add simple titles, credits and special effects, e.g. transitions. Storyboard, then use captured images to create a short animated sequence which communicates a specific idea. <p>Programming</p>	<p>Programming</p> <ul style="list-style-type: none"> Write programs that accomplish specific goals. Read what a sequence in a program does. Work with various forms of input. Work with various forms of output. Use logical reasoning to predict outputs. Design programs, showing skills needed to plan and implement a task / problem that accomplish specific goals. Create programs that implement algorithms to achieve specific goals. Debug programs that accomplish specific goals through self and peer assessment. Use sequence, repetition and selection in programs Use sequences of commands to control physical devices using outputs. Demonstrate and develop a sense of audience when appropriate. Use logical reasoning to detect and correct errors in programs. <p>Information/data handling</p> <ul style="list-style-type: none"> Create frequency diagrams and graphs to answer questions. Create and use a branching database to organise and analyse information to answer questions. Begin to identify what data should be collected 	<p>Data handling</p> <ul style="list-style-type: none"> Construct, refine and interpret bar charts, scatter graphs, line graphs and pie charts. Discuss how IT enables you to search and sift through large amounts of different types of information and describe the advantages of using the tools. Design questions and perform complex searches using key words, to search a large pre-prepared database looking for relationships and patterns, e.g. data on the Internet; census data. Check the reliability of the data; identify and correct inaccuracies. Solve complex enquiries involving selecting, processing and presenting data; drawing conclusions, e.g. is there a relationship between minibeast habitat and diet? Design a data capture form, e.g. a questionnaire or table to collect information to answer a specific question. Search data according to more than one criterion. Present data to a specified audience and display findings in other software, e.g. through presentation software. Compare different charts and graphs, e.g. in tables, frequency diagrams, pictograms, bar charts, databases or spreadsheets and understand that different ones are used for different purposes. 	<p>Digital Research – Searching</p> <ul style="list-style-type: none"> Choose to use the internet when appropriate as a tool for independent research, e.g. gathering text, images, videos and sound as resources to use in their own work. Use more advanced searching techniques (e.g. Boolean and relational operators). Choose the most appropriate search engine for a task, e.g. image search, search within a specific site or searching the wider internet. Be able to create and use folders within lists of book-marks or favourites to organise content. Apply their knowledge of what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school. Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion, e.g. cross checking with different websites or books. Identify whether a file has copyright restrictions and can be legally downloaded from the internet then used in their own work. Use appropriate strategies for finding, critically evaluating, validating and verifying information, e.g., using



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	<p>address bar in a web browser.</p> <ul style="list-style-type: none"> Use technology to source, generate and amend ideas e.g. searching a resource such as Espresso for images by a specific artist. Talk about their use of technology and other ways of finding information, e.g. books, asking other people. Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate teacher selected web sites, and other sources of stored information. Use key words to search a specific resource for information, e.g. Espresso and other websites, under the guidance and supervision of an adult. Be able to retrieve files from a computer using a search of the computer <p>Programming / Simulations and Modelling</p> <ul style="list-style-type: none"> Identify errors in instructions. Give and follow commands (one at a time) to navigate other children and programmable toys around a course or a familiar journey, including straight and turning movements. Plan, generate and follow a sequence of instructions (actual and on-screen) to make something happen; or complete a given task or problem to create a simple program. Explore simulations of 	<p>forms of digital communication such as blogs.</p> <ul style="list-style-type: none"> Begin to use webcams and /or video conferencing as a class, if appropriate and available, with external providers, another class or school. Talk openly about their use of online communication in school and at home. <p>Programming</p> <ul style="list-style-type: none"> Give and follow commands (one at a time) to navigate other children and programmable toys around a course or a familiar journey, including straight and turning movements. Plan, generate and follow a sequence of instructions (actual and on-screen) to make something happen; or complete a given task or problem to create a simple program. Explore and create sequences of commands/instructions in a variety of programs/devices. Make predictions and describe the effects when creating programs and controlling devices. Identify errors in instructions. Use logical reasoning to predict what will happen in simple programs. <p>Data handling</p> <ul style="list-style-type: none"> Develop classification skills by carrying out sorting activities. 	<ul style="list-style-type: none"> Write programs that accomplish specific goals. Use sequence in programs. Read what a sequence in a program does. Create programs that implement algorithms to achieve specific goals. Debug programs that accomplish specific goals through self and peer assessment. Use logical reasoning to detect and correct errors in programs. Use sequence and repetition. <p>Digital Literacy - Digital Research</p> <ul style="list-style-type: none"> Use a range of child friendly search engines to locate different media, e.g. text, images, sounds or videos. Evaluate different search engines and explain their choices in using these for different purposes. Develop key questions and key words to search for specific information to answer a problem, e.g. a question such as 'Where could we go on holiday?' would become a search for 'holiday destinations'. Consider the effectiveness of key questions on search results and refine where necessary. Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion, e.g. cross checking with different websites or books. 	<p>to answer a specific question.</p> <ul style="list-style-type: none"> Collect data and enter it into a database under appropriate field headings. Use a database to answer straightforward questions by searching, matching and ordering the contents of a single field. Based on the data collected, children should raise their own questions and translate them into search criteria that can be used to find answers to specific questions. Compare different charts and graphs, e.g. in tables, frequency diagrams, pictograms, bar charts, databases or spreadsheets and understand that different ones are used for different purposes. Select and use the most appropriate method to organise and present data. <p>Graphics and images/ modelling and simulation</p> <ul style="list-style-type: none"> Use different font sizes, colours and effects to communicate meaning for a given audience. Use various layouts, formatting, graphics and illustrations for different purposes or audiences. Use various software tools to complete a project, problem or task. Use page setup to select different page sizes and orientations. Use cut, copy and paste to refine and re-order content. Combine and use various software tools to complete a project, problem or task. 	<ul style="list-style-type: none"> Select and use the most appropriate method to organise, present, analyse and interpret data. <p>Electronic Communication and Collaboration / Computer Networking</p> <ul style="list-style-type: none"> Independently, and with regard for eSafety, select and use appropriate communication tools to solve problems by collaborating and communicating with others within and beyond school, e.g., email, discussion forums, blogs, wikis, text messages and other digital communication tools. Make use of webcams and /or video conferencing, if appropriate and available, e.g., to exchange ideas and collaborate on projects with external providers, another class or school, or abroad. Extend online publishing to a more global audience, e.g. creating and publishing web pages, blog and podcasting. Evaluate the effectiveness of a variety of digital communication tools for communicating and collaborating. <p>Simulations and modelling/IT – Data handling</p> <ul style="list-style-type: none"> Explore the effects of changing variables in models and simulations in order to solve a problem. Make and test predictions. Enter formulae into a 	<p>different keywords, skim-reading to check relevance of information, cross checking with different websites or other non ICT resources.</p> <ul style="list-style-type: none"> Distinguish between fact and opinion and make informed choices about the sources of online information used to inform their work. Apply their knowledge of the meaning of domain names and common website extensions, e.g., .co.uk, .com, .ac, .sch, .org, .gov, .net, to support the validation process. Develop skills to question where web content might originate from and understand that this gives clues to its authenticity and reliability, e.g., by looking at web address, author, contact us sections, linked pages. Use acquired search skills to question where web content might originate from and understand that this gives clues to its authenticity and reliability, e.g., by looking at web address, author, contact us sections, linked pages. Identify how copyright restrictions can affect how a file can be used in their own work, e.g., those produced under Creative Commons Licensing. <p>Design, Create and Manage and Manipulate Digital Content</p> <ul style="list-style-type: none"> Select, use and combine internet services to create digital 'content'
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	<p>real and virtual environments e.g. BBC science clips, virtual plants and pets.</p> <ul style="list-style-type: none"> Make informed choices when exploring what happens in a simulation. Discuss use of simulations and compare with reality, e.g. a simulation of a science experiment. Talk about the rules found in simulations. <p>Text and Images / Use of Technology</p> <ul style="list-style-type: none"> Skills Use a range of digital devices to capture and save both still and moving images. These could include digital cameras, video cameras, tablets. Upload images or video from cameras and other digital devices to a computer, or into a document, with support if needed. Save and store work in an appropriate area, and be able to print, retrieve and amend it. Organise and name files appropriately and accurately. Refine the use of shape, line and colour to communicate a specific idea or artistic style/effect through various tools including brushes, pens, lines, flood fill, spray and stamps. Talk about their use of graphics package and their choice of tools. Begin to make changes 	<ul style="list-style-type: none"> Use simple graphing software to produce pictograms and other basic tables, charts or graphs. Use graphing software to enter data and change a graph type, e.g. pictogram to bar chart. Interpret the graphs, discuss the information contained and answer simple questions. Sort and classify a group of items by asking simple yes / no questions. This may take place away from the computer, e.g. a ‘Guess Who’ game. Use a branching database program to sort and identify items. Use basic search tools in a prepared database to answer simple questions e.g. how many children have brown hair? <p>Create, Manage and Manipulate Digital Content</p> <ul style="list-style-type: none"> Create a sequence of images to form a short animation. Change the content of a project for a specific audience. <p>Computer Science</p> <ul style="list-style-type: none"> Plan, generate and follow a sequence of instructions (actual and on-screen) to make something happen; or complete a given task or problem to create a simple program. Explore and create sequences of commands/instructions 	<ul style="list-style-type: none"> Use appropriate tools to save and retrieve accessed information, e.g. through the use of favourites, history, copy/paste and save as. Identify and cancel unwanted advertising, pop-ups and potentially malicious downloads by using the task manager function and NOT through buttons on the pop-up window, or the cross in the right hand corner. Know how to temporarily allow useful pop-ups from a website. <p>Programming</p> <ul style="list-style-type: none"> Write programs that accomplish specific goals. Read what a sequence in a program does. Work with various forms of input. Work with various forms of output. Use logical reasoning to predict outputs. Create programs that implement algorithms to achieve specific goals. Debug programs that accomplish specific goals through self and peer assessment. Use sequence and repetition in programs Plan, test and evaluate programs that solve specific problems using a screen turtle or other programmable devices. Use sequences of commands to control physical devices using outputs. Demonstrate and develop a sense of audience when appropriate. 	<ul style="list-style-type: none"> Use appropriate editing tools to ensure their work is clear and error free, e.g. spell checker, thesaurus, find and replace. Select and import sounds from other sources, e.g. own recordings, sound effects and music. Select and import graphics from digital cameras, graphics packages and other sources and prepare for use, e.g. cropping, resizing and editing. Use and combine internet services such as those that provide images, sounds, 3-D representations and graphic software. Recognise and use key layout and design features, e.g. text boxes, columns and borders. Insert and edit simple tables. Create a range of hyperlinks and produce a non-linear, interactive presentation. Recognise intended audience and suggest improvements to make their work more relevant to that audience. Through self and peer assessment, analyse and evaluate presentations and projects so that suitable improvements can be added to work. <p>Information Technology – sound/multimedia</p> <ul style="list-style-type: none"> Use a variety of devices and software to select, playback and record voice and other sounds. Locate and use sound files from online sources, e.g. Audio Networks, and 	<p>pre-prepared spreadsheet model to explore the effects of changing variables.</p> <ul style="list-style-type: none"> Develop simple spreadsheet models to investigate a real life problem. Create simple spreadsheet models to investigate a real life problem. Identify and enter the correct formulae into cells. Make predictions of the outcome of changing variables. <p>Computer Science / Computational Thinking</p> <ul style="list-style-type: none"> Use repetition and selection in programs. Use variables in programs. Design and create programs using decomposition. Design programs to accomplish specific tasks or goals. Use logical reasoning to develop systematic strategies that can be used to debug algorithms and programs. <p>Design, Create, Manage and Manipulate Digital Content</p> <ul style="list-style-type: none"> Select, use and combine internet services to create digital ‘content’ (including programs and systems). Demonstrate awareness of intended audience in work. Independently select the most appropriate ICT tools for intended purpose and audience. Routinely evaluate and improve work as part of the design process. 	<p>(including programs and systems).</p> <ul style="list-style-type: none"> Demonstrate awareness of intended audience in work. Independently select the most appropriate ICT tools for intended purpose and audience. Routinely evaluate and improve work as part of the design process. Use a range of digital devices to produce digital ‘content’. Sound (specific) Independently select and use a variety of devices to record musical and non-musical sounds. Independently select, edit, manipulate and combine sound files from a range of sources to create a composition which could be broadcast for a specific purpose and audience, e.g. a soundbyte or podcast. Upload and download projects to other devices and online space e.g. VLE, blog or website, collaborating and communicating with audiences in locations beyond school. Create their own sounds and compositions to add to presentations, animations and films. Use ICT to produce music or sound effects for a specific purpose, considering the impact on the audience, e.g. length, style, genre. <p>Programming</p>
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	<p>to images e.g. cropping using basic tools in image manipulation software.</p> <p>Digital Research - Searching</p> <ul style="list-style-type: none"> Locate specific, teacher defined, age appropriate websites through a favourites menu and /or by typing a website address (URL) into the address bar in a web browser. Use technology to source, generate and amend ideas e.g. searching a resource such as Espresso for images by a specific artist. Talk about their use of technology and other ways of finding information, e.g. books, asking other people. Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate teacher selected websites, and other sources of stored information. Use key words to search a specific resource for information, e.g. Espresso and other websites, under the guidance and supervision of an adult. Be able to retrieve files from a computer using a search of the computer. <p>Creating Digital Content (Text and Images)</p> <ul style="list-style-type: none"> On a range of devices: Develop correct use of the keyboard (e.g. spacebar, backspace, 	<p>in a variety of programs/devices.</p> <ul style="list-style-type: none"> Make predictions and describe the effects when creating programs and controlling devices. Identify errors in instructions. Use logical reasoning to predict what will happen in simple programs. 	<ul style="list-style-type: none"> Use and debug programs that control physical devices (<i>note real or screen simulations could be used</i>). Use logical reasoning to detect and correct errors in programs. <p>Electronic communication</p> <ul style="list-style-type: none"> Use a range of digital tools to communicate, e.g. contributing to chats and/or discussion forums, in school’s VLE, blog or text messages, making purposeful contributions to respond to another pupil’s question or comment. Investigate the different styles of language, layout and format of different electronic communications and how these vary depending on the audience. Continue to use webcams and / or video conferencing as a class, if appropriate and available, e.g. with external providers, another class or school, or abroad as part of a wider topic. Begin to publish their work to a wider audience, e.g. using VLE or podcasting tools. <p>Images, Video and Animation</p> <ul style="list-style-type: none"> Acquire, store and retrieve images from cameras, scanners and the internet for a purpose. Select specific areas of an image, copy and paste to make repeating patterns. 	<p>other multimedia resources</p> <ul style="list-style-type: none"> Select, import and edit existing sound files in sound editing software, e.g. Audacity. Use editing tools to refine and improve outcomes and performances. Use recorded sound files in other software applications. Be able to share sound recordings with a wider audience. Use music software to experiment with capturing, repeating and sequencing sound patterns. Use ICT to create and perform sounds or music that would otherwise not be possible in a live situation, e.g. editing a multi-part piece. <p>Digital research</p> <ul style="list-style-type: none"> Use a range of child friendly search engines to locate different media, e.g. text, images, sounds or videos. Evaluate different search engines and explain their choices in using these for different purposes. Develop key questions and key words to search for specific information to answer a problem, e.g. a question such as ‘Where could we go on holiday?’ would become a search for ‘holiday destinations’. Consider the effectiveness of key questions on search results and refine where necessary. Use strategies to verify the accuracy and reliability of information, 	<ul style="list-style-type: none"> Use a range of digital devices to produce digital ‘content’. <p>Text and Images</p> <ul style="list-style-type: none"> Develop and use criteria to evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations. Evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations. Select suitable text, sounds and graphics from other electronic sources, and import into own work. Create an outline plan for a non-linear presentation; producing a diagram to demonstrate understanding how pages link and the need for clarity. Develop the use of hyperlinks to produce more effective, interactive, non-linear presentations. Use of hyperlinks to produce more effective, interactive, non-linear presentations. Develop consistency across a document - same style of font, colour, body text, size for headings, etc. Make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience. Independently select, 	<ul style="list-style-type: none"> Use repetition* and selection* in programs. Use variables* in programs. Design and create programs using decomposition. Design programs to accomplish specific tasks or goals. Use logical reasoning to develop systematic strategies that can be used to debug algorithms and programs. Use programming software to create simulations. <p>Digital Research/IT/CS (networking)</p> <ul style="list-style-type: none"> Understand how search engines work and know that there are different search engines; some to search within sites, and some to search the wider Internet. Understand what ‘ranking’ is when related to search engines. Understand the importance of keywords and ‘linked’ pages in the listing/ranking of websites by search engines. <p>Computer Networks</p> <ul style="list-style-type: none"> Understand the difference between the internet and the World Wide Web. Understand that the Internet provides many different services. Know about the key components of a network and how networks work. Understand what an IP (Internet Protocol) address is.
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	<p>delete, shift (not caps lock) and enter keys).</p> <ul style="list-style-type: none"> ▪ Add captions to photos and graphics. ▪ Select text appropriately e.g. highlighting or clicking text to select. ▪ Make simple changes to text e.g. colour, style and size. ▪ Select text from word lists (if necessary). ▪ Select appropriate images to add to work. ▪ Word process short texts directly onto the computer (i.e. do not just copy up handwritten work). ▪ Navigate round text in a variety of ways e.g. mouse, arrow keys, touch, when editing work.Computer Science ▪ Give and follow commands (one at a time) to navigate other children and programmable toys around a course or a familiar journey, including straight and turning movements. ▪ Plan, generate and follow a sequence of instructions (actual and on-screen) to make something happen; or complete a given task or problem to create a simple program ▪ Explore and create sequences of commands/instructions in a variety of programs/devices ▪ Make predictions and describe the effects when creating programs and controlling devices ▪ Identify errors in 		<ul style="list-style-type: none"> ▪ Be able to resize various elements in a graphics or paint package. ▪ Use various tools in paint packages or photo manipulation software to edit/change an image, e.g. applying different special effects. ▪ Use the 'print screen' function to capture images. ▪ Explore the use of graphics and paint packages to design and plan an idea. ▪ Use a range of devices to capture still and moving images for a purpose. These could include digital cameras, video cameras, iPads, microscopes and webcams. ▪ Discuss and evaluate the quality of their own and others' captured images and make decisions whether to keep, delete or change them. ▪ Independently download and save images and video onto a computer. ▪ Independently upload images and movies from digital cameras and other devices to a computer and save in a relevant location. ▪ Be able to 'resize' images (pixels, resolution, aspect ratio and dimensions). ▪ Be able to use basic tools in a software package to change images according to purpose. 	<p>distinguishing between fact and opinion, e.g. cross checking with different websites or books.</p> <ul style="list-style-type: none"> ▪ Use appropriate tools to save and retrieve accessed information, e.g. through the use of favourites, history, copy/paste and save as. ▪ Identify and cancel unwanted advertising, pop-ups and potentially malicious downloads by using the task manager function and NOT through buttons on the pop-up window, or the cross in the right hand corner. ▪ Know how to temporarily allow useful pop-ups from a website. ▪ Develop use of more advanced searching techniques, e.g. searching for a phrase using quotation marks to locate precise information.** ▪ Choose the most appropriate search engine for a task, e.g. image search, search within a specific site or searching the wider internet <p>Computer Science – computational thinking</p> <ul style="list-style-type: none"> ▪ Write programs that accomplish specific goals. ▪ Use sequence in programs. ▪ Read what a sequence in a program does. ▪ Design programs, showing skills needed to plan and implement a task/problem that accomplish specific goals. 	<p>process and import images, video and sounds from a variety of sources to enhance work.</p> <ul style="list-style-type: none"> ▪ Format and edit work to improve clarity and purpose using a range of tools, e.g. cut and paste, justify, tabs, insert and replace. ▪ Through peer and self-assessment, evaluate presentations and make improvements. ▪ Make use of transitions and special effects in video editing software, understanding the effect on the audience. ▪ Export images, presentations and movies in formats appropriate for the purpose and use them in multimedia presentations. ▪ Plan and create a short animated sequence to communicate a specific idea, using a storyboard and timeline. ▪ Design and create a short animated sequence to communicate a specific idea, using a storyboard and timeline. <p>Programming</p> <ul style="list-style-type: none"> ▪ Use repetition and selection in programs. ▪ Use variables in programs. ▪ Design and create programs using decomposition. ▪ Design programs to accomplish specific tasks or goals. ▪ Use logical reasoning to develop systematic strategies that can be 	
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