St John Vianney Catholic Primary School – Computing - Knowledge, Understanding and Skills.

"Achieving together in Faith."

KS1 Computing – Year 1 and 2

Digital Literacy	
Online Safety	
Knowledge and Understanding	**Skills**
- Know what it means to use technology safely. - Understand what is meant by personal information. - Understand how to keep personal information safe online. - Know the rules for keeping safe online. - Understand that personal information, e.g. email address, usernames, passwords, home address or telephone number should not be shared, either online or offline, without a trusted adult's permission. - Know that they should not ask to meet anybody from the online world in the offline world. - Know and abide by the school's rules for keeping safe online (age appropriate). - Understand that technology should be used respectfully. - Know where to go for help and support when they have concerns about content they have seen on the internet or other technologies.	- Use technology safely. - Keep personal information safe. - Use technology respectfully. - Recognise situations involving content and contact that are not safe, (e.g. In emails, text messages, videos) and know where to go for help. - Minimise screen, turn off the monitor, or use back buttons to return to the home page if anything inappropriate appears on the screen.
Electronic Communication	
Knowledge and Understanding	**Skills**
- Understand that messages can quickly be sent electronically, via a range of devices, over distances and that people can reply to them. - Understand that an email has to be sent to a unique email address and the need for accuracy in typing the address. - Understand that electronic messages can be in the form of pictures, sound and/or text. - Understand that some emails may be malicious or inappropriate and begin to recognise when an attachment may be unsafe to open. - Understand the different ways that messages can be sent e.g. email, text messages, letter, phone, forums and begin to consider the advantages, or appropriateness, each one.	- 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. - Open and reply to an email from a known person. - Contribute to a blog, journal or forum. - Develop an awareness of appropriate language to use in email and other forms of digital communication such as blogs. - Talk openly about their use of online communication in school and at home.
Computer Science	
Programming and Coding	
Knowledge and Understanding	**Skills**
- Understand that algorithms are a series of steps or instructions to achieve a specific goal. - Understand that devices respond to commands. - Talk about devices in the home that are controlled by commands. - Understand that prediction, trial and error are important considerations when creating programs or controlling movement. - Understand that there are different ways to create or produce a sequence of commands, including verbal, recorded, graphical, pressing buttons and on screen methods.	- 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.

Knowledge and Understanding	Skills
• Understand what debugging is and begin to understand that you can develop strategies to help find bugs. • Understand what logical reasoning is and how it can be used to predict what happens in simple programs.	• Use logical reasoning to predict what will happen in simple programs.

Information Technology

Text and Images

Knowledge and Understanding	Skills
• Know that text can be different colours, sizes and styles and that these can easily be changed. • Know that technology can be used to communicate ideas in different ways, e.g. text, images, tables and sound. • Understand there are a variety of tools in graphics packages, each fulfilling a different purpose. • Know that there are various ways of capturing still and moving images. • Know the importance of giving an appropriate name to files. • Know that files can be stored in folders and how the structure of the directory is ordered. • Understand that files can be retrieved from their location and edited. • Understand the differences between a graphics package and paper based art activities. • Understand the need to frame an image or scene and keep the camera still. • Understand that animation is a sequence of still images. • Know how to take images appropriately and responsibly. • Understand how the mood of a piece can easily be changed through use of text, graphics and sound. • Begin to understand that images, sounds and text can be subject to copyright. • Start to understand that content needs to be changed according to the audience. • Understand the importance that files need to be organised and named files appropriately and accurately.	• 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 appropriate images to add to work. - Word process short texts onto the computer. - 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. • Use a range of digital devices to capture and save both still and moving images. These could include digital cameras, video cameras, and tablets. • 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. • Begin to make changes to images e.g. cropping using basic tools in image manipulation software. • Upload images or video from cameras and other digital devices to a computer, or into a document, with support if needed. • Create a sequence of images to form a short animation. • Begin to add different forms of media together e.g. text and images in blogs or word processing documents. • Organise and name files appropriately and accurately.

Sound

Knowledge and Understanding	Skills
• Understand that most devices have stop, record and playback functions. • Be aware that sound can be recorded and stored on the computer as a sound file.	• Explore a range of electronic music and sound devices and software. . • 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.

Data handling

Knowledge and Understanding	Skills
• Understand that IT can be used to sort items and information. • Understand that IT can be used to create and display charts graphs. • Understand that IT can be used to add to and change charts and graphs quite easily. • Begin to understand that unless data has been entered accurately it cannot be used to provide correct answers to questions.	• Develop classification skills by carrying out sorting activities • 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?

Digital Research - searching	
Knowledge and Understanding	**Skills**
- Begin to understand that some websites are more useful than others when searching for topics. - Understand that technology can give rapid access to a wide variety of information and resources, including internet, TV, DVDs - Understand that there are different ways of finding information, e.g. books, asking other people - Understand that different forms of information, e.g. text, images, sound, multimedia exist and that some are more useful for specific purposes than others. - Understand a website has a unique address and the need for precision when typing it. - Begin to understand that not everything on the internet is true. - Be aware that they can be accidently diverted from websites through a link to a new website, advertising or pop-ups.	- 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. - 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.

LKS2 Computing – Year 3 and 4

Digital Literacy	
Online Safety	
Knowledge and Understanding	**Skills**
- Know how to use technology responsibly. - Understand that online actions can impact on other people. - Understand the need to keep personal information and passwords private in order to protect themselves when communicating online. - Know how to respond if asked for personal details or in the event of receiving unpleasant communications, e.g. saving the message and showing to a trusted adult. - Understand the risks posed by the internet relating to contact e.g. bullying, grooming. - Know a range of ways to report concerns about contact. - Understand the risks posed by the internet relating to content e.g. violent and biased websites. - Understand what acceptable online behaviour is. - Understand what unacceptable online behaviour is. - Recognise that cyber bullying is unacceptable and will be sanctioned according to the school's eSafety policies and procedures and know how to report this. - Understand the risks involved in arranging to meet and subsequently meeting anybody from the online world in the offline world. - Know what images are suitable to include in an online profile and ensure that appropriate permissions have been obtained, e.g. copyright or asking friends before uploading their images. - Know the school's rules for keeping safe online and be able to apply these beyond school.	- Use technology responsibly. - To create appropriate passwords. - Keep passwords and personal data safe. - Recognise acceptable behaviour. - Recognise unacceptable behaviour. - Be able to create a 'secure' password, e.g. combination of letters, symbols and numbers in accordance with the school's eSafety policies and procedures. - Know what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school.
Electronic Communication	
Knowledge and Understanding	**Skills**

Knowledge and Understanding	Skills
• Understand that computer networks can be used for communication and the opportunities they can offer. • Know a range of ways that computer networks can be used for communication. • Understand that some emails and other forms of electronic communications may be malicious or inappropriate and recognise when an attachment may be unsafe to open. • Recognise the effect that content in their communications may have on others. • Respect the ideas and communications of others they encounter online. • Discuss the differences between online communication tools used in school and those used internet content, recognising this is possibly not the case on computers used at home at home, e.g., those 'blocked' through the school's filtering.	• Use a range of digital tools to communicate. • Log on to an email account, open emails, create and send appropriate replies. • Forward an e-mail. • Save an e-mail in draft format and then return and edit prior to sending. • Attach different files to emails, e.g. text document, sound file or image. • Open and save attachments to an appropriate place. • Select an email recipient from a class address book.

Computer Science

Programming and Coding

Knowledge and Understanding	Skills
• Understand how to plan and write programs that accomplish specific goals. • Know a range of input and output devices, the differences and how they can be used. • Understand that computers can collect data from various inputs. • Know what debugging is and how it can be used to achieve specific goals. • Understand that planning and evaluation are vital parts of designing programs. • Understand what the terms sequence, repetition and selection mean and know how to use them in programs. • Understand how to control physical devices. • Be aware that everyday devices use sensors and outputs, e.g. automatic doors, traffic lights, intruder alarms. • Understand how to use logical reasoning to detect errors and correct these in programs. • Understand that computers can collect data from various inputs.	• Write programs that accomplish specific goals. • Read what a sequence in a program does. • Work with various forms of input and output, and use logical reasoning to predict outputs. • Design programs, showing skills needed to plan and implement a task/problem that accomplish specific goals. • Design programs showing appropriate planning and implementing skills. • 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. • 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. • Use and debug programs to control physical devices. Note real or screen simulations could be used. • Use logical reasoning to detect and correct errors in programs.

Information Technology

Text and Images

Knowledge and Understanding	Skills
• Recognise the features of good page design and multimedia presentations. • Consider how design features meet the needs of the audience e.g. poster, news paper, menu, instructions. • Understand that some tasks and problems require a variety of software tools to accomplish them. • Understand that evaluation and improvement are vital parts of the design process and that ICT allows changes to be made quickly and efficiently and demonstrate this through editing their work. • Has an awareness of Internet services. • Recognise that IT can automate manual processes e.g. find and replace and understand the advantages and disadvantages of this. • Compare and contrast the impact of using different sounds, words and images from a variety of electronic sources.	• 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. • 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, 3D representations and graphic software. • Recognise and use key layout and design features, e.g., text boxes, columns and borders.

Knowledge and Understanding	Skills
• Understand that images, 3D representations, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation. • Understand that presentations and projects need to be analysed and evaluated and suitable changes suggested to improve it. • Understand that internet services such as those that provide images, sounds, 3D representations and graphic software can be used to achieve specific goals and tasks.	• 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.

Images, video and animation – graphics (drawing and painting)	
Knowledge and Understanding	**Skills**
•	• 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. • 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.

Images, video and animation – digital photographs, video and animation	
Knowledge and Understanding	**Skills**
• Understand that a digital image can be captured from different devices and it can be stored and developed. • Begin to understand how images from different sources (stills, video, graphics, and animation) are used to enhance a presentation or communicate an idea. • Understand that planning, evaluation and improvement are vital parts of the design process and ICT allows changes to be made quickly and efficiently. • Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images. • Know how to take images appropriately and responsibly. • Understand that copyright exists on most digital images and video about the impact of choices and decisions in their work. • Understand that images, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation.	• 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. • Independently upload images and movies from digital cameras and other devices to a computer and save in a relevant location. • 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.

Sound	
Knowledge and Understanding	**Skills**
• Talk about software which allows the creation and manipulation of sound and music. • Understand that many types of sounds can be combined in editing software. Understand how sound can be used in multimodal texts to create meaning and provide effects. • Understand that copyright exists on most recorded music.	• 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 other multimedia resources. • Select, import and edit existing sound files in sound editing software, e.g., Audacity. • Use recorded sound files in other software applications. • Use music software to experiment with capturing, repeating and sequencing sound patterns.

Data handling	
Knowledge and Understanding	**Skills**
• Understand the need to structure information properly in a database. • Know, understand and use the vocabulary: file, record, field, sort and search. • Recognise similarities and differences between ICT and paper-based systems. • Talk about the advantages of using IT to sort, interrogate and classify information quickly. • Understand that effective yes / no questions are key to organising data efficiently in a branching database.	• Create graphs to answer questions. • Begin to identify what data should be collected to answer a specific question. Collect data and enter it into a database under appropriate field headings. • 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.

Knowledge and Understanding	Skills
• Understand that there are different types of data, e.g. numeric, alphabetic, date, alphanumeric. • Know that ICT can enable the creation of a variety of tables and graphs for different purposes. • Understand some graphs and charts are more appropriate and easier to read than others. • Begin to make choices about how to present data to solve a specific problem.	• 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.

Digital Research - searching	
Knowledge and Understanding	**Skills**
• Talk about and describe the process of finding specific information, noting any difficulties during the process and how these were overcome • Understand that information found as a result of a search can vary in relevance. • Begin to recognise that anyone can author on the internet and sometimes web content is inaccurate or even offensive. • Begin to understand the concept of copyright, e.g. what images, videos or sounds are legal and safe to use in their own work. • Begin to understand the need to acknowledge sources of information. • Understand when and where the internet can be used as a research tool.	• Use a range of child friendly search engines to locate different media, e.g. text, images or sound and choose the most appropriate search engine for a task. • Develop specific key questions and key words to search for information 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. • Use appropriate tools to save and retrieve accessed information, e.g. through the use of favourites, history, copy/paste and save as. • Develop use of more advanced searching techniques, e.g., searching for a phrase using quotation marks to locate precise information.

UKS2 Computing – Year 5 and 6

Digital Literacy	
Online Safety	
Knowledge and Understanding	**Skills**
• Be aware that file sharing is usually illegal due to copyright laws and can also spread viruses. • Know a range of ways to report concerns about content and contact. • Know what a 'strong' password / understand the importance of keeping personal data secure. • Understand what a digital footprint is. • Understand that web users have to observe the terms and conditions of websites. • Understand that electronic communication can be malicious or inappropriate and recognise when an attachment may be unsafe to open. • Understand that social network or other online environments have security settings, which can be altered, to protect the user. • Understand the benefits of developing a 'nickname' for online use where appropriate. • Understand they have a right to be protected from inappropriate use of technology by others and the need to respect the rights of other users. • Understand some malicious adults may use various techniques on the Internet to make contact, elicit personal information and 'groom' young children, e.g., fake profiles. • Understand the risks involved in arranging to meet and subsequently meeting anybody from the online world in the offline world and they should tell a trusted adult immediately if they are asked to meet anybody from the online world in the offline world. • Know how to report any suspicions. • Recognise that cyber bullying is unacceptable and will be sanctioned according to the school's eSafety policies and procedures and how to report any incidents f cyber bullying. • Understand that they should not publish other peoples' pictures/tag them without permission.	• Identify unsuitable posts (e.g. on blogs, a forum …) pertaining to content and conduct. • Identify inappropriate and unacceptable behaviour when analysing resources such as videos, text based scenarios and electronic communications. • Continue to develop the skills to identify risks involved with contact, content and their own conduct whilst online. • Use electronic communication and collaboration tools safely.

- Know that content, e.g., photographs and videos, put online are very difficult to remove.
- Understand how their own inappropriate conduct can put them at risk whilst online.

Electronic Communication and Collaboration

Knowledge and Understanding	Skills
- Understand the potential benefits and risks of digital communication and that methods will vary according to purpose. - Understanding of which tools are better for communicating or collaborating and those that can be used both.	- Evaluate the effectiveness of a variety of digital communication tools for communicating and collaborating. Example- e-mail - Add e-mail addresses to a class address book. - Create group or distribution lists of contacts from an address book. - Learn how to use the cc and bcc facilities when sending an e-mail and discuss when these should be used. - Send 'group' e-mails and be aware of the benefits and risks in 'replying to all'.

Digital research - search

Knowledge and Understanding	Skills
- Understand when and where the internet can be used as a research tool. - Be aware that copying text directly from websites or non-digital resources is equivalent to stealing other people's work (plagiarism). - Understand the concept of copyright and how it applies to material they find/download and to their own work. - Understand the concept of plagiarism and the importance of acknowledging and referencing sources. - Understand that you should not publish other peoples' material on the Internet without their permission but you can hyperlink to their websites. - Become aware that file sharing is usually illegal due to copyright laws and can also spread viruses. - Talk about validity, plausibility and appropriateness of information, especially on the internet. - Understand that good online research involves processing information, and interpreting it for others rather than direct copying.	- Use strategies to verify the accuracy and reliability of information, distinguishing between fact and opinion, e.g. cross checking with different websites or books. - Use appropriate strategies for finding, critically evaluating, validating and verifying information, e.g., using different keywords, skim-reading to check relevance of information, cross checking with different websites or other non ICT resources. - 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.

Computer Science

Programming and Coding

Knowledge and Understanding	Skills
- Know the meaning of the key terms: - selection - variables - decomposition - logical reasoning - Understand what a procedure is and why it is important in programs. - Know that programs can be represented in different formats including written and diagrammatic. - Understand the need for precision when creating sequences to ensure reliability. - Understand how experiences of programming / control relate to control systems in the real world. - Understand that there are often different ways to solve the same problem or task - Understand that programming software can create simple and complex simulations	- 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 procedures in programs. - Design, test and refine programs to control robots or floor turtles taking account of purpose and needs. - Use programming software to create simulations.

Information Technology

Design, create, manage and manipulate digital content

Knowledge and Understanding	Skills
• Understand the importance of content and editing to produce digital content for specific audiences. • Understand that many different devices can be used in isolation and sometimes together to produce digital 'content'. • Understand that you can convert between different formats of files.	• 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'.

Text and Images

Knowledge and Understanding	Skills
• Understand the importance of evaluation and adaptation of individual features to enhance an overall presentation. • Understand the potential of multimedia to inform or persuade and know how to integrate words, images and sounds imaginatively for different audiences and purposes. • Recognise the features of good design in different printed and electronic texts, (e.g. a poster, website, presentation). Talk about design in the context of own work. • Understand that images, sounds and text can be subject to copyright and abide by copyright rules • Know that images (still and moving) can be used to enhance presentations or communicate ideas. • Understand that computers can save digital images, graphics and movies in many different file formats and that some are better suited to certain purposes than others. • Understand the need for caution when using the Internet to search for images and what to do if unsuitable images are found. • Know how to take images appropriately and responsibly • Understand the implications of copyright and apply this to work. • Know how to select suitable software tools to accomplish specific goals and tasks	• Select suitable text, sounds and graphics from other electronic sources, and import into own work. • Develop consistency across a document - same style of font, colour, body text size, etc. • Make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience. • Independently select, process and import images, video and sounds from a variety of sources to enhance work. • Format and edit work to improve clarity and purpose using a range of tools, e.g. cut and paste, justify, tabs, insert and replace. • 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.

Sound

Knowledge and Understanding	Skills
• Be aware of different sound file formats, e.g., MP3, WAV; save and use appropriately. • Know when it is appropriate to use sound/music to communicate with an audience.	• 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 sound byte or podcast. • 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.

Data handling

Knowledge and Understanding	Skills
• Recognise the need for accuracy when designing, entering and interrogating data and how this will affect the quality of information gained. • Recognise the consequences of using inaccurate data and relate to the outside world, e.g. police, doctors, banks, school databases. • Understand which searches and graph types are relevant to a specific problem and types of information. • Understand that there are different types of data, e.g., numeric, alphabetic, date, alphanumeric, currency. • Understand the importance of presentation techniques aimed at a specific audience.	• 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 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.

Knowledge and Understanding	Skills
• Understand the need for data protection and some of the rights of individuals over stored data and how it affects use and storage of data in the real world.	• 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 present, analyse and interpret data.
Digital Research - searching	
Knowledge and Understanding	**Skills**
• Know and understand what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school. • Understand when and where the internet can be used as a research tool. • Understand that you should not publish other peoples' material on the Internet without their permission but you can hyperlink to their websites and acknowledge the source. • Understand that good online research involves processing information, and interpreting it for others rather than direct copying	• 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. • Choose the most appropriate search engine for a task, e.g., image search, search within a specific site or searching the wider internet. • 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.