Creating Content – Sound

Skills	EYFS Y1&2	Y3&4	Y5&6
	○ Explore a range of electronic music and sound devices and software. ○ Explore how digital 'sounds' are used in the real world both in and outside of the school environment. ○ Be able to select and listen to a sound from a bank of pre-recorded sounds. ○ Use sound recorders on a range of devices to record and playback sounds, eg. Voices, instruments, environmental sounds. ○ Use software and devices 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 of their work. ○ Use recorded sound files in software and other applications. ○ With support where needed, be able to save, retrieve and share presentations with a known audience, eg. Via email or on school website, VLE or blog.	○ Listen to and evaluate various existing recordings, eg. Radio broadcasts or podcasts, being able to identify and list key features. Use these to support and develop ideas for their own recordings. ○ Use storyboards or mind mapping tools to plan and organise idea in response to an open ended task. ○ Work in pairs or small groups to plan collaboratively in response to an open ended task. ○ Use a variety of devices and software to select, playback and record voice and other sounds. ○ Locate and use sound files from various offline and online sources, eg. own recordings or Audio Networks ○ Select, import and edit existing sound files in sound editing software, eg. Audacity. ○ Use editing tools to refine and improve outcomes and performances. ○ Use music software to experiment with capturing, repeating and sequencing sound patterns. ○ Use technology to create and perform sounds or music that would otherwise not be possible in a live situation, eg. Editing a multi-part piece. ○ Be able to export compositions for use in other software packages as part of a multimedia presentation. ○ Be able to share sound recordings with a wider audience.	○ Use a variety of resources to organise thoughts and plan a response to a given task. The task should be open ended, provided by the teacher or decided upon by children in response to an area of interest or current study, eg. A history topic. ○ Plan recordings to suit a specified audience and purpose. ○ Independently select and use a variety of appropriate 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, eg. A sound bite or podcast. ○ Create own sounds and compositions to add to presentations and films. ○ Use technology to produce music or sound effects for a specific purpose, considering the impact on the audience, eg. Length, style, genre. ○ Upload and download projects to other devices and online space, eg. School's website, blog or VLE collaborating and communicating with audiences in locations beyond school.
Knowledge & Understanding	**EYFS Y1&2**	**Y3&4**	**Y5&6**
	○ Understand that most devices have stop, record and playback functions. ○ Be aware that sound can be recorded and stored on various devices as a sound file. ○ Begin to understand that sounds and music can be subject to copyright. ○ Begin to understand how use of sound on digital devices can impact on personal safety, eg. Loud volume can lead to hearing impairment or playing loud music can be considered as bad manners and disruptive in certain situations.	○ 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. ○ Respect that individuals may not want their voices to be recorded / published online. ○ Understand the implications of playing loud music in terms of personal safety and the impact on others.	○ Be aware of different sound file formats, eg. MP3, WAV; save and use appropriately. ○ Know when it is appropriate to use sound/music to communicate with an audience. ○ Understand issues relating to copyright when choosing music samples and files and apply to their work.

Creating Content - Images, Video and Animation

Skills	EYFS Y1&2	Y3&4	Y5&6
	○ Refine the use of shape, line and colour to communicate a specific idea or artistic style/effect through various drawing tools; including brushes, pens, lines, flood fill, spray and stamps. ○ Use technology to source, generate and amend ideas for their work, eg. Searching the Internet for images by a specific artist. ○ Begin to use paint packages or photo-manipulation software to edit/change an image, eg. Cropping. ○ Use a range of digital devices to capture and save both still and moving images. These could include digital cameras, video cameras, microscopes and webcams. ○ Upload images or movies from cameras and other digital devices to a computer, with support if needed. ○ Create a sequence of images to form a short animation. ○ With support where needed, be able to save, retrieve and share presentations with a known audience, eg**.** Via email or on school website, VLE or blog.	○ Use storyboards or mind mapping tools to plan and organise idea in response to an open ended task. ○ Work in pairs or small groups to plan collaboratively in response to an open ended task ○ Capture, acquire, store and retrieve still and moving images from a range of digital devices and the Internet for a purpose. ○ Be able to select specific areas of an image, copy and paste, eg. To make repeating patterns or to include in a multimedia presentation. ○ Be able to resize various elements in a graphics or paint package. ○ Be able to 'resize' images (pixels, resolution, aspect ratio and dimensions). ○ Use various tools in paint packages or photo-manipulation software to edit/change an image, eg. Applying different special effects. ○ Use the 'print screen' function or other screen capture tools / software to capture images or sections of images according to purpose. ○ Explore the use of graphics and paint packages to design and plan an idea, eg. to represent a sequence of instructions ○ Be able to use basic tools in a software package to change images according to purpose. ○ Import and combine 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, eg. Transitions. ○ Storyboard, then use captured images to create a short animated sequence which communicates a specific idea. ○ 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. ○ Discuss the final copy of own and peers work, assessing whether it meets the requirements of the task and the needs of the audience. ○ Share work with a relevant audience, for example peers or another class.	○ Acquire, store and combine images from different sources and devices. ○ Create images using a range of techniques and devices to develop a particular style. ○ Understand how to change a camera's settings to take images of a resolution that is appropriate for the task. ○ Independently capture, store, retrieve and edit digital images to improve them. ○ Make choices regarding the software and hardware to be used according to the purpose of the task. ○ Refine and make changes to images according to audience. ○ Search for images that do not have copyright restrictions and / or acknowledge sources in their work. ○ Make use of transitions and special effects in video editing software, understanding the effect they have on the audience. ○ Export images 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. ○ Share the final presentation with a wider audience for example on the school website, VLE or via email to a recipient. ○ Write and receive feedback from others regarding the quality of the final presentation. ○ Recognise how a presentation can be improved and make necessary changes.

Creating Content - Images, Video and Animation

Knowledge & Understanding	EYFS Y1&2	Y3&4	Y5&6
	○ Understand the differences between a graphics package and paper based art activities, being able to discuss the benefits and drawbacks of each. ○ Understand there are a variety of tools in a graphics package, each fulfilling a different purpose. ○ Talk about their use of graphics, image and video package(s) and their choice of tools. ○ Know that there are various ways of capturing still and moving images. ○ Understand the need to frame an image or scene and keep the camera still. ○ Understand that animation is a sequence of still images. ○ Understand that some software packages enable images to be animated. ○ Be able to discuss how digital images and video are used in real life contexts within and outside the school environment. ○ Know how to take images appropriately and responsibly (See school's Acceptable Use Policy/AUP). ○ Understand the need to respect an individual's wishes if they do not want to be included in photographs or videos. ○ Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP).	○ Understand that a digital image can be captured from different devices and it can be stored, developed and enhanced. ○ Begin to understand how images from different sources (stills, video, graphics, and animation) are used to enhance a presentation or communicate an idea. ○ Begin to understand the meaning of 'resizing' i.e. the differences between pixel size, resolution and image dimensions and the need to maintain aspect ratios. ○ Understand that planning is a vital part of the design process. ○ Understand that evaluation and improvement are vital parts of the design process and technology allows changes to be made quickly and efficiently. ○ Understand the difference in format between working copies and final copies of a presentation and how these are saved in certain software packages. ○ Understand that copyright exists on most digital images and video. ○ Understand the need to respect privacy and the personal implications of online publishing. ○ Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP).	○ Know that images (still and moving) can be used to enhance presentations or communicate ideas. ○ Routinely evaluate and improve work as part of the design process. ○ Discuss and evaluate their own and others' images and movies, refining for given audience or task. ○ 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 implications of copyright and apply this to their work, ensuring that sources are acknowledged. ○ Understand the need for caution when using the Internet to search for images and what to do if they find unsuitable images (See school's Acceptable Use Policy/AUP).

Creating Content – Combining Text and Multimedia

Skills	EYFS Y1&2	Y3&4	Y5&6

Text

- Continue to develop correct use of the keyboard, including the spacebar, backspace, delete, shift (for capital letters – not caps lock) and enter keys.
- Begin to use both hands for typing.
- Navigate around text in a variety of ways, eg. Using arrow keys, mouse or touch gestures.
- Select text using an appropriate method, eg. Highlighting or clicking text to select.
- Make simple changes to selected text, eg. Colour, style and size.
- Be able to undo and redo using icons.

Multimedia

- Add captions to photographs and graphics.
- Create simple presentations for different purposes using templates for support.
- Make use of graphics, video and sound to enhance text in multimedia work.
- Select appropriate images, video or sounds to add to work. These may for example, be in the form of clip art or sound files incorporated in a software package or downloaded from the Internet and stored in a network folder.
- With support where needed, be able to save, retrieve and share presentations with a known audience, eg**.** Via email or on school website, VLE or blog.

Text

- Use storyboards or mind mapping tools to plan and organise idea in response to an open ended task.
- Work in pairs or small groups to plan collaboratively in response to an open ended task**.**
- Continue to develop correct use of the keyboard with increasing speed and accuracy. This will include the use of delete and backspace keys for deletions and the use of arrow keys to move around text.
- 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 page setup to select different page sizes and orientations.
- Be able to align text to right, left and centre.
- Use cut, copy and paste to refine and re-order content.
- Be able to use common keyboard shortcuts, eg. Ctrl C to copy and Ctrl Z to paste.
- Use appropriate editing tools to ensure their work is clear and error free, eg. Spell checker, thesaurus, find and replace.
- Recognise and use key layout and design features, eg. Text boxes, columns and borders.
- Insert and edit simple tables.

Multimedia

- Select suitable text, sounds and graphics from other electronic sources and import into own work.
- Select and import graphics from digital cameras, graphics packages and other sources and prepare for use, eg. Cropping, resizing and editing.
- 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, evaluate presentations and suggest suitable improvements to their work.

Text

- Use a variety of resources to organise thoughts and plan a response to a task. The task should be open ended, provided by the teacher or decided upon by children in response to an area of interest or current study, eg. A history topic.
- Develop and use criteria to evaluate design and layout of a range of resources including web sites, pages on VLE, online resources and presentations.
- Create an outline plan for a non-linear presentation; producing a diagram to demonstrate understanding how pages link and the need for clarity.
- Continue to develop correct use of the keyboard with increasing speed and accuracy.
- Format and edit work to improve clarity and purpose using a range of tools, eg. Cut and paste, justify, tabs, insert and replace.
- Develop consistency across a document, using the same styles of font, colour, size for headings, body text, etc.
- Be able to add columns and rows to tables.
- Recognise common file formats and use the most appropriate for the task and audience, eg. Using .pdf files for website publication.

Multimedia

- Independently select process and import images, video and sounds from a variety of sources to enhance presentations.
- Develop the use of hyperlinks to produce more effective, interactive, non-linear presentations.
- Make effective use of transitions and animations in presentations. Consider their appropriateness and overall effect on the audience.
- Make use of reviewing tools (comments) in word processors to collaborate and evaluate each other's work.
- Through peer and self-assessment, evaluate presentations and make improvements.

Creating Content – Combining Text and Multimedia

Knowledge & Understanding	EYFS Y1&2	Y3&4	Y5&6
	○ Know that text can be different in colour, size and style and these can easily be changed. ○ Know that multimedia includes sound, text and graphics. ○ Know that technology can be used to communicate ideas in different ways, eg. through text, images, video, tables And sound. ○ Know that multimedia can be created in different ways using different devices, eg. Tablets, PC or Mac systems. ○ Talk about their use of text, graphics and sound, including how the mood of a piece can easily be changed. ○ Begin to understand that images, video, sounds and text can be subject to copyright.	○ Recognise the features of good page design and multimedia presentations. Consider how these meet the purpose and needs of the audience. ○ Understand that only main information is needed in a presentation when you are going to talk alongside the presentation. ○ Understand that evaluation and improvement are vital parts of the design process and that technology allows changes to be made quickly and efficiently. Demonstrate this through editing their work. ○ Recognise that technology can automate manual processes, eg. 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. ○ Develop an increasing sense of audience and talk 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.	○ Demonstrate awareness of intended audience in their work. ○ Independently select the most appropriate technology and tools for their intended purpose and audience. ○ 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, eg. Poster, website, presentation. Talk about design in the context of their work. ○ Understand that images, sounds and text can be subject to copyright and abide by copyright rules when creating a presentation. ○ Know that sources must be acknowledged.

Organising Content - Data Handling

Skills

EYFS Y1&2

- Develop classification skills by carrying out sequencing and sorting activities (practically and on the IWB) which may include the use of online Carroll or Venn diagrams.
- Use simple graphing software to produce pictograms and other basic tables or graphs.
- Use graphing software to enter data and change a graph type, eg. Pictogram to block diagrams.
- Interpret and draw conclusions from graphs, discuss 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, eg. A 'Guess Who' game.
- Use a branching database program, where appropriate, to sort and identify items.
- Use basic search tools in a prepared database to answer simple questions, eg. How many children have brown hair?
- Save, retrieve, edit and publish work as appropriate.

Y3&4

- Create frequency diagrams, tables and graphs to answer questions (linked to mathematical understanding).
- Create and use a branching database to collect, organise and analyse information 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.
- 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, eg. In tables, frequency diagrams, pictograms, bar charts, line graphs, 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.

Y5&6

- Construct, refine and interpret bar charts, scatter graphs, line graphs and pie charts.
- Design questions and perform complex searches using key words, to search a large pre-prepared database looking for relationships and patterns, eg. 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 from their work, eg. Is there a relationship between minibeast habitat and diet?
- Design a data capture form, eg. 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, eg. Through presentation software.

Knowledge

EYFS Y1&2

- Understand that technology can be used to sort items and information.
- Understand that technology can be used to create, display, add to and change graphs quite easily.
- Begin to understand that unless data has been entered accurately it cannot be used to provide correct answers to questions.
- Be able to discuss various ways in which technology is used to organise, store and manipulate 'data' in the real world.

Y3&4

- Understand the need to structure information properly in a database.
- Know, understand and use the vocabulary: *file, record, field, sort and search*
- Understand that effective yes / no questions are key to organising data efficiently in a branching database.
- Understand that there are different types of data, eg. Numeric, alphabetic, date, alphanumeric, currency.
- Recognise similarities and differences between the use of technology and paper-based systems.
- Know that technology can enable the creation of a variety of tables and graphs that are used for different purposes.
- Talk about the advantages of using technology to sort, interrogate and classify information quickly.
- 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.

Y5&6

- 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, eg. Police, doctors, banks, school databases.
- Discuss how technology enables you to search and sift through large amounts of different types of information and describe the advantages of using the tools.
- Understand which searches and graph types are relevant to a specific problem and types of information.
- Understand that there are different types of data, eg. Numeric, alphabetic, date, alphanumeric, currency.
- 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.

Computing – Programming and making things work

Skills	EYFS Y1&2	Y3&4	Y5&6
	○ Give and follow instructions, initially one at a time, to navigate other children or programmable devices around a course, including straight and turning movements. ○ Follow a sequence of instructions – to navigate a human or programmable device around a course in order to solve a problem. ○ Plan, write and follow a precise sequence of instructions (algorithm) to complete a simple task or solve a problem. This may be for other children, programmable devices or on screen applications. ○ Use a range of technologies, eg. Storyboards, sequences of symbols, images, text or recorded verbal instructions to represent an algorithm written to solve a problem. ○ Predict what will happen when a sequence of instructions is followed. ○ Be able to write a simple program to solve a problem, eg. How to move a Beebot around a maze. ○ Be able to recognise simple errors in programs and amend as necessary (debug). ○ Make changes to improve the effectiveness of algorithms and programs. Make predictions with regard to the impact of any changes or be able to describe the effect any changes have made to the program.	○ Design, write, test and debug sequences of instructions (algorithms) to solve open ended problems, eg. Moving a floor robot along a route or creating geometric patterns using a screen turtle. ○ Decompose problems into a series of smaller steps. ○ Use *'repetition'* in the design and writing of programs to increase the complexity and efficiency of instructions. ○ Explore and use a range of programming tools and software to solve problems, eg. Logo, scratch, Flowol, Go. ○ Use logical reasoning to recognise errors in programs then modify and refine accordingly (debugging). ○ Design, write and test simple algorithms and programs to control simulations and/or physical devices. ○ Incorporate a range of input and output forms, according to the problem and resources available, into programs (This could include real devices and/or on screen simulations /software).	○ Design, create, test and refine programs to accomplish a specific goal or solve a problem. ○ Increase the use of a range of resources, eg. Programming environments/ languages, and be able to choose the most appropriate depending on the task. ○ Introduce *'selection',* eg. If, then, else statements, to write more complex programs taking the purpose of the task into account. ○ Introduce *'variables'* to write more complex programs with an element of choice. ○ Use logical reasoning to predict and explain how programs work and be able to detect errors in algorithms and programs, then correct (debug). ○ Plan, create, test, modify and refine control sequences which use inputs and outputs to control events (real and on screen simulations) taking account of purpose and needs.
Knowledge & Understanding	**EYFS Y1&2**	**Y3&4**	**Y5&6**
	○ Talk about devices in the home that are controlled by instructions. ○ Understand that an *algorithm* is a series of instructions written to solve a problem. ○ Understand that computer programs *execute* by following a series of algorithms. ○ Understand the need for instructions to be precise and unambiguous ○ Understand that prediction, trial and error are important considerations when controlling movement to achieve a specific outcome. ○ Understand that there are different ways to create or represent a sequence of instructions, including verbal, recorded, graphical, pressing buttons and on screen methods.	○ Be aware that there are various computer languages that can be used to create programs. Logo and Scratch are examples of these. ○ Understand what inputs and outputs are. ○ Be aware that everyday devices use sensors and outputs, eg. Automatic doors, traffic lights, intruder alarms. ○ Understand that a control box connected to a computer, running appropriate software, can be used to control output devices and computer systems, eg. Bulbs, buzzers and motors, and that these can also be simulated on screen.	○ Be able to choose resources and equipment as appropriate to resolve a specific problem according to users, purpose and needs. ○ Know that creating sequences of commands, or programming can be represented in different formats including written and diagrammatic. ○ Understand the need for precision when creating sequences of commands to ensure that the system or program is reliable. ○ Understand how experiences of programming and control relate to control systems in the real world.

Computer Science - Simulations and Spreadsheet Modelling

Skills	EYFS Y1&2	Y3&4	Y5&6
	○ Explore simulations of real and virtual environments across other curriculum areas, eg. BBC science clips, virtual plants and pets. ○ Discuss how simulations are both similar and different to real life situations. ○ Make informed choices when exploring what happens in a simulation. ○ Talk about the rules found in simulations. Begin to link these with a basic understanding of algorithms as a set of instructions. ○ Use logical reasoning to predict how simulations behave under varying situations.	○ Explore the effects of changing variables in models and simulations, asking 'What if?' questions. ○ Use logical reasoning to predict and test how a simulation works. ○ Use a pre-prepared spreadsheet to record data to answer questions, solve problems and produce graphs. ○ Change the contents of cells in a pre-prepared spreadsheet and explore the consequences, eg. Exploring simple number patterns/ multiples.	○ Explore the effects of changing variables in models and simulations in order to solve a problem. ○ Use logical reasoning to make and test predictions, being able to explain their thinking. ○ Enter formulae into a pre-prepared spreadsheet model to explore the effects of changing variables, eg. Simple calculations such as using 'SUM' to calculate the total of a set of numbers in a range of cells. ○ Develop simple spreadsheet models to investigate a real life problem. ○ Begin to use a range of simple formulae appropriate to solving a problem and enter the correct formulae into cells. These may include the use of calculation formulae and conditional **IF** statements. ○ Be able to recognise errors in formulae and amend where necessary. ○ Make predictions of the outcome of changing variables.
Knowledge & Understanding	**EYFS Y1&2**	**Y3&4**	**Y5&6**
	○ Understand how computer simulations can represent real and virtual environments. ○ Discuss the use of simulations and compare with reality, eg. A simulation of a science investigation. ○ Understand that computer simulations allow the user to explore options and make choices, recognising that different decisions produce different outcomes.	○ Understand how computer simulations can represent real or imaginary situations and how these can help in the wider world. ○ Understand how computer simulations and spreadsheet models allow changes to be made quickly and easily in comparison with real life situations. ○ Understand that changes made to one element of a spreadsheet can impact on other calculations.	○ Understand when and where it is appropriate to use a spreadsheet model or a simulation to support an investigation and explain their choices. ○ Understand that spreadsheets can automate functions, making it easier to test variables, eg. When planning a budget you can change the number of items and see the changes to total cost. ○ Understand that spreadsheets can be used to explore mathematical models. ○ Understand the need for accuracy and frequent checking when entering formulae. ○ Understand the possible consequences of using inaccurate data or formulae.

Digital Literacy – Communication and Collaboration

Skills	EYFS Y1&2	Y3&4	Y5&6

For children in Key Stage 1, online communication will be mainly teacher led. They can however use systems such as the learning platform and Z&M Drives to communicate digital content.

- Contribute ideas to class and group communications, eg. Emails, blogs, VLE.
- Communicate internally with a known audience, eg. Another class, teacher, bursar.
- Respond appropriately to communications from a known audience.
- Develop an awareness of appropriate language to use in email and other forms of electronic communication.
- Begin to use webcams and /or video conferencing as a class, if appropriate and available, eg. With external providers, another class or school.
- Know what to do and who to tell if they see something inappropriate or are contacted by unknown people online, eg. how to minimise a screen, turn the monitor off, use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.

- Have experience of a range of communication technologies, eg. email account, blogs, wikis, forums, VLE
- Be able to create a 'secure' password, eg. Combination of letters, symbols and numbers in accordance with the school's eSafety policies and procedures /AUP.
- Be able to read and respond to communications appropriately.
- Investigate the different styles of language, layout and format of different electronic communications and how these vary depending on the audience.
- Save communications where appropriate in draft form. Edit and save before sending.
- Be able to attach different files to a communication, eg. Adding a text document, sound file or image to an email.
- Select recipients, eg. Of an email from a class address book.
- Continue to use webcams and /or video conferencing as a class, if appropriate and available, eg. With external providers, another class or school, or abroad as part of a wider topic.
- Begin to publish their work to a wider audience, eg. Blogs, school website VLE or podcasting tools.

- 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, eg. Email, discussion forums, wikis, text messages and other digital communication tools.
- Evaluate the effectiveness of a variety of digital communication tools.
- Add recipients of digital communications, eg. Email 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.
- Make use of webcams and /or video conferencing, if appropriate and available, eg. To exchange ideas and collaborate on projects with external providers, another class or school, or abroad.
- Extend online publishing to a more global audience, eg. Creating and publishing web pages, blogs and podcasting.

Digital Literacy – Communication and Collaboration

Knowledge & Understanding	EYFS Y1&2	Y3&4	Y5&6
	○ Understand that messages can quickly be sent electronically over distances and that people can reply to them. ○ Understand that certain forms of communication eg. email has to be sent to a unique email address and the need for Accuracy in typing the address. ○ Understand that some communications 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, eg. email, text messages, letter, phone, VLE forum and begin to Consider the advantages of each one. ○ Understand that messages can take the form of pictures, Sound and/or text.	○ Understand that some communications may be malicious or inappropriate and recognise when an attachment may be unsafe to open. ○ Respect the ideas and communications of others and recognise the effect that content in their communications may have on others. ○ Understand the need for certain rules of conduct particularly when using live forms of communication, eg. chats and forums in the school's VLE, taking turns to Speak when video conferencing. ○ Know what images are suitable to include in an online profile and ensure that appropriate permissions have Been obtained, eg. copyright or asking friends before Uploading their images.	○ Understand that some communications may be malicious or inappropriate and recognise when an attachment may be unsafe to open. ○ Understand the potential benefits and risks of digital communication and that methods will vary according to purpose. ○ Understand that social network or other online environments have security settings, which can be altered, to protect the user. ○ Understand the need to respect privacy of other individuals, eg. through using a bcc function on an email, not uploading/using images or personal information without permission
	○ Understand that personal information, eg. Email address, usernames, passwords, home address or telephone number should not be shared, either online or offline, without a trusted adult's permission. ○ Recognise situations where they don't feel safe, eg. 'Scary' emails, text messages or contact from an unfamiliar person and know to ask a trusted adult for help – according to school's eSafety policies and procedures /AUP. ○ Know that they should not ask to meet anybody from the online world in the offline world. ○ Know that they should tell a trusted adult immediately if they are asked to meet somebody from the online world in the offline world. ○ Talk openly about their use of online communication in school and at home. ○ Know and abide by the school's rules for keeping safe online.	○ Know the school's rules for keeping safe online and be able to apply these beyond school. ○ Discuss the differences between online communication tools used in school and those used at home, eg. Those 'blocked' through the school's filtering. ○ 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, eg. saving the message and showing to a trusted adult – according to the school's eSafety policies and procedures /AUP. ○ Understand the risks involved in arranging to meet and subsequently meeting anybody from the online world in the offline world. ○ Know that they should tell a trusted adult immediately if they are asked to meet somebody from the online world in the offline world. ○ Know that many common Social Network sites and some online tools have age restrictions (usually 13). It is advisable to check the terms and conditions of online tools to ensure that they are 'age appropriate'. ○ Recognise that cyber bullying is unacceptable and will be sanctioned according to the school's eSafety policies and procedures /AUP. ○ Know how to report an incident of cyber bullying if and when it occurs, according to the school's eSafety policies and procedures /AUP.	○ 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, eg. Fake profiles. ○ Understand the risks involved in arranging to meet and subsequently meeting anybody from the online world in the offline world. ○ Know that 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, eg. Through school's eSafety policies and procedures and the use of CEOP's 'report abuse' button, which links directly to the police. ○ Recognise that cyber bullying is unacceptable and will be sanctioned according to the school's eSafety policies and procedures /AUP. ○ Know how to report an incident of cyber bullying if and when it occurs, according to the school's eSafety policies and procedures /AUP. ○ Understand that they should not publish other peoples' pictures or tag them on the Internet without permission. ○ Know that content, eg. Photographs and videos, put online are very difficult to remove.

Digital Literacy - Research

Skills	EYFS Y1&2	Y3&4	Y5&6
	○ Use and explore appropriate buttons, arrows, menus and hyperlinks to navigate teacher selected web sites, VLE, CD ROMs and other sources of stored information. ○ Using key words search a specific resource for information, eg. Espresso and other websites, under the guidance and supervision of an adult. ○ 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. ○ Begin to evaluate web sites by giving opinions about preferred or most useful sites. ○ Know what to do and who to tell if they see something inappropriate on a website, eg. how to minimise a screen, turn the monitor off, use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.	○ Be able to search for programs or files on a computer. ○ Use a range of child friendly search engines to locate different media, eg. 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, eg. 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, eg. Cross checking with different websites or books. ○ Use appropriate tools to save and retrieve accessed information, eg. Through the use of favourites, history, copy/paste and save as. ○ Identify whether a file has copyright restrictions and can be legally downloaded from the Internet then used in their own work. ○ Identify and cancel unwanted advertising, pop-ups and potentially malicious downloads by using the task manager function. ○ Know how to temporarily allow useful pop-ups from a website. ○ Know what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school, eg. how to minimise a screen, turn the monitor off, or use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.	○ Choose to use the Internet when appropriate as a tool for independent research, eg. Gathering text, images, videos and sound as resources to use in their own work. ○ Develop use of more advanced searching techniques, eg. Searching for a phrase using quotation marks to locate precise information. ○ Choose the most appropriate search engine for a task, eg. Image search, search within a specific site or searching the wider Internet. ○ Use appropriate strategies for finding, critically evaluating, validating and verifying information, eg. Using different keywords, skim-reading to check relevance of information, cross checking with different websites or other resources. ○ Distinguish between fact and opinion and make informed choices about the sources of online information used to inform their work. ○ Use their knowledge of the meaning of domain names and common website extensions, eg. .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, eg. By looking at web address, author, contact us sections, linked pages. ○ Be able to create and use folders within lists of bookmarks or favourites to organise content. ○ Identify how copyright restrictions can affect how a file can be used in their own work, eg. Those produced under Creative Commons Licensing. ○ Know what to do and who to tell if they discover something inappropriate or offensive on a website, at home and in school, eg. how to minimise a screen, turn the monitor off, or use back buttons to return to the home page or the 'Hector Protector' screen so that they can keep safe, according to school's eSafety policies and procedures /AUP.

Digital Literacy - Research

Knowledge & Understanding	EYFS Y1&2	Y3&4	Y5&6
	○ Understand that technology can provide rapid access to a wide variety of information and resources, including Internet, TV, and DVDs. ○ Talk about their use of various technologies and other ways of finding information, eg. Books. ○ Understand that different forms of information, eg. Text, images, sound, multimedia, exist and that some are more useful for specific purposes than others. ○ Understand and discuss how information can be obtained and used to answer specific questions. ○ Understand a website has a unique address and the need for precision when typing it. ○ Begin to understand that not everything on the Internet may be true, eg. Spoof websites. ○ Be aware that they can be accidently diverted from websites through a link to a new website, advertising or pop-ups. ○ Know that they should ignore any pop-ups and tell a trusted adult, who will take appropriate action to close them safely.	○ Talk about and describe the process of finding specific information, noting any difficulties during the process and how these were overcome ○ 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 that information found as a result of a search can vary in relevance. ○ Understand that search engines have different rules for ranking results. The first source of information may not always be the most relevant. ○ Begin to recognise that anyone can author on the Internet and sometimes web content is inaccurate or even offensive. ○ Understand that provision is made in schools to filter Internet content, recognising this is possibly not the case on computers used at home. ○ Begin to understand the concept of copyright, eg. What images, videos or sounds are legal and safe to use in their own work. ○ Be aware that copying text directly from websites or non-digital resources is equivalent to stealing other people's work (plagiarism). ○ Begin to understand the need to acknowledge sources of information. ○ Understand the need to ignore unwanted advertising or pop-ups as they can inadvertently introduce viruses or spyware onto a computer system.	○ Understand when and where the Internet can be used as a research tool. ○ 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 some of the potential dangers and impact of not validating information. ○ Understand that good online research involves processing information, and interpreting it for others rather than direct copying.