IT Knowledge skills and Capability Year 4

POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (DL)	POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (DS)	POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (SRU)
- Work together to create a document either on a network and or web based on a topic, area of interest or event (for example using goggle sites) which incorporates hyperlinks, images and embedded media/documents to produce a non-linear, interactive presentation. - Develop increasing sense of audience, talking about their choices and decisions. Learning to be 'good' digital citizens. - Understand there are other methods of communication e.g. blogging, instant messaging, e-mail and begin to know when each of these would be used. - Recognise and use key features of layout and use design features such as text boxes, columns and borders etc. - Continue to word process using layout, format, graphics and illustrations for different purposes or audiences. - Use I.T. to create a finished product or set of linked products. - Understand that evaluation and improvement is a vital part of a design process and I.T. allows changes to be made quickly and efficiently. - Know there are some risks when using ICT and know there are ways they can keep themselves safe (see SRU section). - Use appropriate editing tools to ensure their work is clear and error free (using tools such as spell checker, thesaurus, find and replace). - Understand that copying the work of others and presenting it as one's own is called plagiarism.	- Recognise the different storage areas we use to store our work, images, video and programs on individual devices and on the school network. - Use appropriate tools to save and retrieve accessed information, e.g. favourites, history, copy/paste and save as. - Understand the lack of anonymity online, everything can be traced (digital footprint.) - Develop key questions and key words to search for specific information to answer a problem, e.g. 'where could we go on holiday?' Would become a search engine for 'holiday destinations'. - Consider effectiveness of key questions on search results and refine where necessary. - Begin to recognise how information may not be accurate and may be used for bias, manipulation or persuasion. - Identify whether a file has copyright restrictions and can be legally downloaded from the internet and used in their own work. - Understand that they need to use online collaborative and communication tools safely and responsibly. http://www.ictplanning.co.uk/passwords/ -how safe is my password.	- Recognise social networking sites and social networking features built into other things (such as online games and handheld games consoles). - Be able to make judgments in order to stay safe, whilst communicating with others online. - Know how to respond, if asked for personal information or feel unsafe about content of a message. - Identify dangers when presented with scenarios, social networking profiles, etc. - Articulate examples of 'acceptable' and 'unacceptable' behaviour online. Recognise that cyber bullying is unacceptable and the possible consequence i.e. sanctions in line with the school's policy and wider society. - Understand that the internet contains fact, fiction and opinion and begin to distinguish between them. - Understand the need for caution when using an internet search for images and what to do if they find an unsuitable image. (Use different search engines) - Understand the need to keep personal information and passwords private and secure.

POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (MM)	POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (P/C/I)	POS / Skill / Capability / Concepts / Knowledge Key skills / Objectives (UD)
Multimedia • Use the key features of different layouts and apply this knowledge to meet the needs of the audience (e.g. poster, newspaper, menu, instructions, etc). • Understand that evaluation and improvement is a vital part of a design process and that ICT allows changes to be made quickly and efficiently. Demonstrate through editing their work. • Recognise that ICT can automate manual processes (eg. thesaurus, find and replace). Understand the advantages and disadvantages of this • Compare the different contributions of sounds, words and images from a variety of electronic sources. Understand that PDF documents cannot be edited. • Recognise the features of good page design and multimedia presentations apply to own work. • Develop increasing sense of audience and purpose and talk about their choices and decisions. **Digital Imagery** • Demonstrate how a digital image can be captured from a number of different devices and that it can be stored, developed and enhanced • Understand how images from different sources (stills, video, graphics, animation) are used to enhance a presentation or communicate an idea • Understand that evaluation and improvement is a vital part of a design processes and ICT allows for to make changes quickly and efficiently • Give examples of the need for caution when using the internet to search for images and what they should do if they find images that upset them.	• Plan, create, test and modify sequences of commands to solve open ended problems using an on screen floor robot, screen turtle or other programmable devices. • Compare and discuss these recognising that algorithms are developed according to a plan and then tested. • Understand it can be easier to plan, test and correct parts of an algorithm separately. Refer to debugging. • Use and edit a pre-written procedure in order to debug. • Use more advanced Logo programming, including pen up/pen down and repeat commands to draw regular and irregular shapes on screen. • Create, test, modify and refine sequences, e.g., more complex symmetric and repeating geometric patterns. • Write a list of commands to produce a pre-drawn shape and amend instructions as required • Explain commands and procedures including the degrees of turn and direction of their model. • Create simple flow diagrams or pictorial sequences of commands using appropriate tools/software. • Make accurate predictions about the outcome of their program • Experience a variety of resources to extend understanding and knowledge of programming. • Experiment with variables to control models and simulations. • Attach and use sensors to take accurate	• Plan and create own database, creating fields and applying simple data validation. • Determine the data needed to solve a specific problem; organise, present, analyse and interpret the data in tables, diagrams, tally charts, pictograms and bar charts, using ICT where appropriate. • Begin to make choices about how to present data to solve a specific problem - how I.T. can help create graphs for different purposes and some are easier to read than others. • That different programs (graphing, databases, spreadsheets) create graphs in different ways and are appropriate to different needs and purposes. • Understand how to translate questions into queries to find information e.g. to find the most common etc. • Use other software to present these findings as appropriate. • Generate and compare different charts and graphs (using graphing software, database or spreadsheet) and understand that different graphs are used for different purposes. • Begin to use a spread sheet to enter data and create graphs. • Understand that data can be collected more efficiently by data logging devices Identify opportunities for logging data and follow through simple investigations.

(See school's Acceptable Internet Usage Policy). • Understand that film conveys meaning and begin to understand the "language of film" **Sound and Music** • Talk about software which allows easy manipulation and creation of sound and music and explain their preferences. • Understand that copyright exists on most recorded music. DRM –Digitally Rights Managed • Know that sounds files may have different extension names which only allows them be played on certain devices. • Understand that evaluation and improvement is a vital part of a creative process and ICT allows changes to be made quickly and efficiently. • Know that sound files can be uploaded onto the learning platform and shared across a wider audience.	measurements and record results. • Use sensors to 'trigger' an action such as turning lights on. • Use knowledge of on screen games to plan and create their own showing sequence of steps to create. Include objects to collect, enemies to avoid and animation effects within the game.	