IT Knowledge skills and Capability Year 6

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)
- Continue to create non-traditional presentations, web based work based on topics, area of interest or events, increasing the complexity of these sites, using tools to help them design and create a web based application for smart phones/tablets, giving consideration to the market/audience for their application. - Create websites/Life Cloud pages for a specific purpose and improve these sites. - Talk through the difference between the Internet and the World Wide Web - Continue to use technology to present their work which link into a topic, area of interest or event, showing an increasing degree of skill and using appropriate advanced features of software and tools .i.e. multi scene animation, e-books etc.. - Create a web based application for a smart phone or tablet with consideration for the audience- containing information about a topic, trip, the school or to support work in other areas of the curriculum. - Continue to regularly use word processing and desktop publishing to present their work, combing formatted text with other media and making choices about programs and features to use and justifying these choices to others. - Understand the importance of evaluation and adaptation of individual features to enhance the overall product - Continue to use I.T. to create a finished product or set of linked products, developing consistency in style across linked products. - Start to independently select ways to communicate their own ideas paying heed to safe and responsible use.	- Recognise the different services that are part of the Internet. - Be able to choose the most appropriate search engine for a task, e.g. image search, search within a specific site or searching the wider internet. - Recognise that search results are selected and ranked. - Distinguish between fact and opinion and make informed choices about the sources of information online information used to inform their work. - Recognise their responsibility to check copyright and acknowledge where content comes from. - 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 addresses, author, contact us sections, linked pages. - Be able to create and use folders within lists of book marks or favourites to organise content. Understand appropriate and responsible communication online	- Find *report* and *flag* buttons in commonly used sites and name sources of help (Childline, Cybermentors, etc). Know how to report any suspicions. 'Click-CEOP' button and explain to parents what it is for. - Discuss scenarios involving online risk and what to do if they discover something malicious or inappropriate - State the source of information found on the internet. - Use strategies to verify information, e.g. cross-checking. - Understand that the outcome of internet searches at home may be different than at school. - Know that content put online is extremely difficult to remove. - Understand that copyright exists on most digital images, video and recorded music and may not be copied or downloaded - Recognise the potential risks of using internet communication tools and understand how to minimise those risks (including scams and phishing)

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Multimedia • Show an increasing awareness of the intended audience and give logical explanations for their choices and decisions. • Understand the potential of multimedia to inform or persuade and explain how to integrate words, images, animations and sounds imaginatively for different audiences and purposes. • Recognise the features of good design in different printed and electronic texts (e.g. poster, website, presentation, etc) Talk about design in context of their own work • Independently select the most appropriate tools for their intended purpose and audience. • Explain the importance of evaluation and adaptation of individual features to enhance the overall presentation **Digital Imagery** • Recognise the concept of copyright and apply this to their work. • Routinely evaluate and improve as part of a design process • Understand the difference between object based graphic packages and paint packages. • Begin to be aware when it is more appropriate to use an object based drawing package than a paint program. • Children discuss and evaluate their own and others' movies and refine for given audience/task • Understand that computers save digital image and graphics as many different file types and that some are better suited to certain purposes than others. **Sound and Music** • Understand issues relating to copyright of music – e.g. when selecting samples DRM	• Locate errors in commands, procedures and programs and correct them, (debug) showing how knowledge of algorithms helps in this process. • Record in some detail the steps (the algorithm) that are required to achieve an outcome and refer to this when programming. • predict the outputs for the steps in an algorithm • Group commands as a procedure to achieve a specific outcome within a program. • Alter the program set-up for a particular sensor e.g. time span of recording • Use inputs from sensors to trigger events. • Write procedures to switch (control) a series of devices at the same time. • Control on screen mimics and physical devices using one or more input and predict the outputs. • Explore 'What if..?' questions by devising different scenarios for controlled devices. • Plan, create, test, modify and refine control sequences which use inputs and outputs, e.g., using *if … then …* commands to control events taking account of purpose and needs. • Understand how sensors can be used to measure input in order to activate a procedure or sequence and talk about applications in society. • Recognise and explain how different monitoring systems work • Devise, test and refine more effective control sequences incorporating conditional statements, procedures and sub-routines, taking account of purpose and needs. • Devise, create and develop own games. Use	• Continue to use, search, query and create their own databases as appropriate, linking into work across the curriculum. • Linked into a theme, or **real life application**, create a spreadsheet, enter basic formulae, copy cells and use simple formatting in a spreadsheet (simple calculations and SUM) and change data in a spreadsheet to model situations and answer 'What if…' questions. • Know which formulas to use to change spreadsheet models. • Understand that ICT allows quick and easy changes to be made to different variables once a spreadsheet is set up. • Understand that changing the numerical data effects a calculation. • Be able to sort and filter information drawing specific graphs to show data. • Know how to check for and spot inaccurate data. • Talk about how the spreadsheet helps them to manipulate a model easily. • Design an investigation which requires the use of dataloggers recognising what measurements will be needed and the most appropriate means of recording and presenting the data.

• Be aware of different sound file formats (eg MP3, WAV) and save and use appropriately. • Judge when it is appropriate to use podcasting as a means of communication. • Explain reasons behind choices and decisions made.	and amend examples of code from other sources to alter made game. • Use 3D modelling program to create a virtual environment or representation of an idea i.e. Google Sketch up • Create an app to fulfil a specific purpose.	