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|  | Multimedia and Word processing | Digital media | Programming  2 forms/languages | Communication and Collaboration | Data | E-Safety |
| 5th Grade | * Select appropriate software for the task/audience * Plan structure and layout of presentation * evaluate and select suitable information and media from a range of electronic resources * organise, refine and present information for a specific audience * Create a range of hyperlinks to produce a non-linear presentation * Through peer assessment and self evaluation, make suitable improvements * choose appropriate techniques to create an effective and well polished presentation considering intended audience. * Discuss and evaluate the presentations and give reasons for the chosen styles and techniques   **When word processing children should:**   * be able to use various display features to communicate to an audience: e.g. fact/definition boxes, annotated illustration, leaflet layout. * delete/insert and replace text to improve clarity and mood. * make corrections using a range of tools (eg spell check, find and replace) * develop confidence using both hands when typing | **Digital Imagery**   * explore all the features of a given video editing or animation package * plan a storyboard for a video or animation to suit a purpose * film, create, edit and refine to ensure quality; present to an audience | **Programming Unit 1: Introduction to Python/Small Basics**   * Navigate Python/Small Basics programming environment Idle * Declare variables * Use a range of statements * Use selection algorithms * Use comparison and numerical operators   Programming : Unit 2 - HTML   * Create a basic page with head and body sections. * Open and test pages in internet explorer * Add frames to give the page structure * Add text, pictures and video and be able to change these. * Create hyperlinks to other pages and websites. | **Blogging (kidblog.org)**   * Register for a blog: selecting a url and navigate to their blog once it is created. * Alter the theme and appearance of their blog, adding background images etc. * Create a new post, save it as a draft and publish it. * Embed photos, hyperlinks and videos into posts. * Reorganise posts and remove posts they no longer want. * Like/follow other blogs * and build up their blog content over the year. | **Database**   * to identify a problem which can be solved by collecting data * to identify which data to collect * to collect data in an efficient and accurate way * to organise data by designing fields and records in a database * to interpret data by using a range of searches and graphs * to draw conclusions from data * to use conclusions to solve the original problem * to present findings to a specified audience * to justify reasons for their choices and explain why other methods were not appropriate * Simulation * To identify and enter the correct formulae into cells, modify the data, make predictions of changes and check them * to identify formulae and enter them into a spreadsheet * Copy formulae to create tables of results * to use a spreadsheet to draw a graphs and answer questions * to change the data and formulae in a spreadsheet to answer 'what if ...?' questions and check predictions | **E-Safety**  **Online Research**   * Children use a range of sources to check the validity of a website. * Children recognise that different viewpoints can be found on the web. They critically evaluate the information they use, and understand some of the potential dangers of not doing so. * Children are aware of the issues of plagiarism, copyright and data protection in relation to their work. * Children select copyright free images and sounds from sources such as the Audio Networks and NEN image gallery.   News on Atlas – RSS feeds  **E-Safety Communication & Collaboration**   * Decide which online communication tool is the most appropriate to use for a particular purpose, e.g. email, discussion forums, podcast, or multi-user documents on Fronter. * Discuss issues to do with Social Networking. E.g. giving too much information, people using information online, not knowing who is at the other end of the conversation   **E-Safety E-Awareness**   * Be aware of the issues surrounding cyberbullying and understanding the impact on an individual of sending or uploading unkind or inappropriate content. * Know that malicious adults use the Internet and attempt to make contact with children and know how to report abuse. |

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| Unit/Project | Statutory requirements/ key skills | Notes | Possible outcomes and activities |
| Multimedia and word processing | * Select appropriate software for the task/audience * Plan structure and layout of presentation * evaluate and select suitable information and media from a range of electronic resources * organise, refine and present information for a specific audience * Create a range of hyperlinks to produce a non-linear presentation * Through peer assessment and self evaluation, make suitable improvements * choose appropriate techniques to create an effective and well polished presentation considering intended audience. * Discuss and evaluate the presentations and give reasons for the chosen styles and techniques   **When word processing children should:**   * be able to use various display features to communicate to an audience: e.g. fact/definition boxes, annotated illustration, leaflet layout. * delete/insert and replace text to improve clarity and mood. * make corrections using a range of tools (eg spell check, find and replace) * develop confidence using both hands when typing | Suggested Resources  **Multimedia Authoring packages: Powerpoint – Create slides and add pictures, text, WordArt, Video**  **Word processing packages: Word** – Word processor  **Photostory 3** (as whole class) - combines photos into a slideshow and allows sound, voice commentary and titles to be added.  **Touch Typing Course** – Links on Fronter which included BBC Dance Mat Typing ([www.bbc.co.uk/schools/typing](http://www.bbc.co.uk/schools/typing))  **Primary Pad** – Web-based word processor designed for schools that which allows pupils to work together in real-time | **Plan a presentation including appropriate software, combine from a range of sources, organise and refine to suit purpose and audience**  Literacy – create a leaflet about something whilst having a literacy focus, i.e. using a variety of persuasive language within the leaflet.  Science – create a document explaining a science concept that another year group could use to learn from.  Talks – create a presentation for a talk.  World War 2 – create a non-linear presentation about an aspect of WW2. |
| Digital Imagery | * explore all the features of a given video editing or animation package * plan a storyboard for a video or animation to suit a purpose * film, create, edit and refine to ensure quality; present to an audience | Suggested Resources  **Digital camera** -  **Flip Cameras** – Simple filming device which allows for videos to be quickly and easily played on screen  **Windows Movie Maker** - Video editing software which allows  **2Aimate** – Simple animation program  **Photostory 3** (as whole class) - combines photos into a slideshow and allows sound, voice commentary and titles to be added.  **Green Screen** – children perform in front of a green screen and then the program (I can present) digitally adds any background behind them. | **Plan and produce a video or animation. Evaluate and improve work, aiming at high production standards.**  Literacy – Create scenes with multiple camera angles and shot types  Topic – Alter a piece of drama to make it appear to be from the past e.g. use green screen and add effects in Movie Maker. |
| **Programming Unit 1: Introduction to Python/Small Basics** | * Navigate Python/Small Basics programming environment Idle * Declare variables * Use a range of statements * Use selection algorithms * Use comparison and numerical operators | Guide for using Small Basics [**http://tinyurl.com/pdd78vb**](http://tinyurl.com/pdd78vb) | Create a simple game such as noughts and crosses or a guessing game. |
| **Programming Unit 2:**  **HTML** | * Create a basic page with head and body sections. * Open and test pages in internet explorer * Add frames to give the page structure * Add text, pictures and video and be able to change these. * Create hyperlinks to other pages and websites. | Click on View and source or Ctrl+U in Internet Explorer to view the source code for a website.  Children could compare similarities which need to be in all websites as a starting point.  There are lots of online guides for learning HTML a list of them can be found at http://www.gradeinfinity.com/?p=3839 | Link to Topic  Create an information page about Rivers.  Create a Grammar guide with links to online games to help other pupils improve their understanding of grammar. |
| **Programming Unit 3:**  **APP Inventor** | * Understand the role of the component designer, block editor, and phone/emulator * Create a simple app with button components to enable navigation * Add media (sounds and images) to apps and upload them from a computer * Test and run apps using App Inventor’s live testing * Package an app and download them to a phone or tablet. | <http://www.appinventor.org/> has lot so videos and advice. There is even a ‘Course-in-a-box’ section with  Instructions for creating a simple app <http://www.appinventor.org/apps/hellopurr/hellopurr.pdf> | Topic – Create an information app about a current topic. Include information and images.  Create a simple quiz app on any curriculum area. |
| Communication and Collaboration | **Blogging**   * Alter the theme and appearance of their blog, adding background images etc. * Create a new post, save it as a draft and publish it. * Embed photos, hyperlinks and videos into posts. * Reorganise posts and remove posts they no longer want. * Like/follow other blogs and build up their blog content over the year. | Use blog such as  <http://kidblog.org/home/> | Regularly update a blog during a term. Add photos and links to related sites or other blogs. |
| **Communication & Collaboration** | * Decide which online communication tool is the most appropriate to use for a particular purpose, e.g. email, discussion forums, podcast, or multi-user documents on Fronter. * Discuss issues to do with Social Networking. E.g. giving too much information, people using information online, not knowing who is at the other end of the conversation | ThinkUKnow Cybercafe Lesson 9: Social Networking – Safe Profiling  School email system or communication tools with the learning platform.  SMART Rule – Safe, Reliable | This could be taught as a separate Life Skills lesson or as part of another ICT lesson.  Refer to the E-SMART rules. |
| Handling Data  Simulation | * To identify and enter the correct formulae into cells, modify the data, make predictions of changes and check them * to identify formulae and enter them into a spreadsheet * Copy formulae to create tables of results * to use a spreadsheet to draw a graphs and answer questions * to change the data and formulae in a spreadsheet to answer 'what if ...?' questions and check predictions | Suggested Resources  **Spreadsheet program e.g. Excel** – Start to use as a spreadsheet; adding formulas. | **Design and use a spreadsheet to solve a mathematical problem by reviewing rules and variables.**  Answer ‘what if questions’  Create spreadsheet for business plan |
| Handling Data : Database | Database   * to identify a problem which can be solved by collecting data * to identify which data to collect * to collect data in an efficient and accurate way * to organise data by designing fields and records in a database * to interpret data by using a range of searches and graphs * to draw conclusions from data * to use conclusions to solve the original problem * to present findings to a specified audience * to justify reasons for their choices and explain why other methods were not appropriate | Suggested Resources  **Database software (eg. Textease Database,).**  **Excel**- Create graphs and spreadsheets | **Solve a problem by planning and carrying out data collection, by organising and analysing data using a database, and by drawing conclusions and presenting findings to a specific audience**  Maths – use data they’ve collected in maths to create a spreadsheet and graphs/charts and to answer questions.  Topic – Create a database about different Rivers around the world and compare.  Science – use collected data to answer questions and make charts/graphs.  Create a business plan for money making project |

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| **E-Awareness** | * Be aware of the issues surrounding cyberbullying and understanding the impact on an individual of sending or uploading unkind or inappropriate content. * Know that malicious adults use the Internet and attempt to make contact with children and know how to report abuse. | School Internet **‘Being SMART online’**  KS 2 Safer Internet Day Assembly video. [**http://www.thinkuknow.co.uk/teachers/**](http://www.thinkuknow.co.uk/teachers/)  Clair’s story from CEOP (11-16)  <http://www.thinkuknow.co.uk/teachers/> (Summer term – please note teachers need training and support to deliver this).  [www.thinkuknow.co.uk/8\_10/](http://www.thinkuknow.co.uk/8_10/)  “Let’s fight it together”, Cyberbullying section, accompanied by comprehensive teaching resources and video : <http://www.digizen.org/>  SMART - Reliable | This could be taught as a separate Life Skills lesson or as part of another ICT lesson.  Refer to the E-SMART rules. |