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|  | Multimedia and Word processing | Digital media | Programming2 forms/languages | Communication and Collaboration | Data | E-Safety |
| Year 6 | * 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.

**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 typesTopic – 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 TopicCreate 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 ProfilingSchool 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 DataSimulation  | * 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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* 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.
 | Children’s search engines;[www.kidsclick.org](http://www.kidsclick.org) http://kids.yahoo.com/ www.askforkids.comRevisit school’s ‘Being SMART Online’CyberQuoll Episode 5– ‘Trying it on’ (cyber marketing) and lessons 5.1-5.6 http://www.cyberquoll.com.au CyberQuoll Episode 5– ‘Kids in cyberspace’ (the big picture) and lessons 6.1-6.4 http://www.cyberquoll.com.au For copyright free images;NEN image galleryAudio Networks | This could be taught as a separate Life Skills lesson or as part of another ICT lesson.Refer to the E-SMART rules. |
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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. |