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|  | Yr3 | Yr4 | Yr5 | Yr6 |
|  Generic Skills  | Can use a range of ICT equipment and software with support. Can create and name new folders, with support. Can print work using the drop down menu. Can make changes to their work. Can consolidate keyboard skills. Can highlight/select items. Can use cut, copy and paste. Can explain their work and how they have used ICT.  | Can choose an appropriate program, with support. Can create and name new folders, independently. Can use Print Preview. Can understand that work can be saved in different places e.g. network, writeable CD ROM, Pen Drive Can plan what they are going to do and evaluate the results. Can describe their work and explain how and why they have used ICT.  | Can choose an appropriate program to perform a task. Can understand and use the hierarchical file system. Can combine information from various sources. Can describe and discuss their work and explain how and why they have used ICT.  | Can choose and combine the use of appropriate ICT tools to complete a task. Can critically evaluate the fitness for purpose of work as it progresses. Can annotate their work samples using prompt questions. |
| Data Handling  | We are opinion pollsters Children researching and presenting responses  | We are software developersChildren plan and make a game developing from using coding. As part of this, research the sort of toys people want and present this as market research | We are game developersResearch game they will design by doing market research and create graphs using research. Children then need to create a game to meet the needs of their audience.  | We are project managers Link to area and perimeter and give children open ended issue e.g. carpet sizes, garden area, zoo planning. Children create spreadsheet to deal with larger problem they need to solve.  |
| Can collect information using a questionnaire. Can enter data into a prepared database. Can use the search tools to answer simple questions relevant to an investigation. Can sort and organise information to use in other ways. Can produce graphs from the data with support. Can enter data in a prepared spreadsheet, with support. Can select data to produce a graph, with support. Can recognise which information is suitable for their topic. Can understand that libraries store data about all books and readers on computer and compare this with school’s library system.  | Can begin to identify data handling opportunities Can create and search a branching database. Can create a database from information I have selected. Can use the database to carry out an investigation. Can present data in different ways – e.g. graphs, tables. Can start to amend errors. Can use a spreadsheet to record data and produce graphs independently. Can enter data in a prepared spreadsheet independently. Can select data to produce a graph independently. Can use a spreadsheet to explore number patterns e.g. in a hundred square, multiplication table.  | Can create data collection forms and enter data from these accurately. Can know how to check for and spot inaccurate data. Can enter information into a spreadsheet using appropriate headings. Can move to a specific cell in a spreadsheets. Can use a simple formula e.g. SUM Can use a spreadsheet to investigate e.g. cost of foods / drinks Which is the best value drink?  | Can know how to check for and spot inaccurate data. Can use formulae and functions in a spreadsheet. Can enter and use simple formula in a spreadsheet. Can understand that changing the numerical data effects a calculation. Can change data to satisfy ‘What if’ queries. Can use a spreadsheet to solve simple problems e.g. the relationship between the perimeter and area of a quadrilateral. Can make graphs from the calculations on my spreadsheet. Can use editing tools to alter the design of a graph. Can organise, refine and present information appropriate to the audience. |
| Research  | We are communicatorsChildren gain an ‘e-pal’ from another school and use email safely. Through email, share safe links and text | We are co-authors (link to text)Children research online wikipedia type websites using esafe searches. Then collaboratively create a similar document linking to other area of curriculum | We are bloggersImportant that concepts in this unit are taught as part of Esafety work at start of academic year and done in greater depth in separate unit as well. Children discuss importance of responsible social media use and positive uses of blogging | We are market researchersChildren given item to research and find out information for an ‘expert’ e.g. are there issues with habitats being destroyed in our country? Children create response based on their research  |
| Can type in a URL to find a website. Can add websites to favourites. Can use a search engine to find a range of media, e.g. images, text. Can understand Internet safety rules.  | Can think of search terms to use linked to questions they are finding the answers for. Can talk about the reliability of information on the Internet, e.g. the difference between fact and opinion. Can use Internet safety rules.  | Can use advanced search functions in Google, e.g. quotations. Can use AND and OR in their searches Can check the accuracy of information, with support. Can begin to be aware of privacy and other issues related to using the Internet. Can interpret and question the plausibility of information.  | Understand websites such as Wikipedia are made by users (link to E-Safety) Can suggest ways to check the accuracy of information independently. Can be aware of privacy and other issues related to using the Internet.  |
| Computer Science  | We are programmersChildren use coding to programme an object to follow instructions | We are toy designersChildren use coding and also create a toy using Scratch. Pitch their toy in dragons den style panel. | We are cryptographersWork on secret codes and ciphers. Children then to predict codes and create own. Link this in to alarms, security passwords etc.  | We are app developers / we are interface designersChildren design an app using control systems and navigation programme |
| Can plan, write, evaluate, and edit a sequence of instructions. Can be aware that Logo is a computer language. Can write a simple program in Logo to produce a line drawing. Can use more advanced Logo programming, including pen up, pen down etc. Write a program to reproduce a defined problem, e.g. geometric shape/pattern. Can begin to experiment with on-screen control software to control outputs. Can use a variety of inputs. Can use the ‘repeat’ (loop) command within a series of instructions. Can use the ‘if… then’ (conditional statement) command within a series of instructions  | Can include an algorithm to include selection (if) and repetition (loops). Can decomposed algorithms into component parts (procedures). Can test and correct parts of an algorithm separately. Can use conditional statements (‘if…then’) to create dangerous items in their world.  | Can create and edit variables. Can predict the outcome of a control procedure. Can use conditional statements. Use loops and conditions to refine algorithms Can use conditional statements to control external outputs. Can use conditional statements and infinite loops. Can evaluate and edit the set of instructions to make a more efficient system Can be aware of control applications in everyday life, e.g. automatic doors, robots in car factories, automatic security lights.  | Can use on-screen control software to plan, create and run a more complex set of instructions Can declare statements. Can use comparison and numerical operators in Python. Can plan and create a control system to answer a task Can understand when it would be appropriate to use a control system Can navigate Python programming environment. Evaluate the effectiveness of their game and debug if required.  |
| E-safety  | See ‘research’ element.ESSENTIAL THAT ALL E SAFETY RULES ARE ESTABLISHED AT THE START OF AN ACADEMIC YEAR AND RULES ARE ALWAYS ON DISPLAY IN CLASSROOMS | ESSENTIAL THAT ALL E SAFETY RULES ARE ESTABLISHED AT THE START OF AN ACADEMIC YEAR AND RULES ARE ALWAYS ON DISPLAY IN CLASSROOMS | ESSENTIAL THAT ALL E SAFETY RULES ARE ESTABLISHED AT THE START OF AN ACADEMIC YEAR AND RULES ARE ALWAYS ON DISPLAY IN CLASSROOMS | ESSENTIAL THAT ALL E SAFETY RULES ARE ESTABLISHED AT THE START OF AN ACADEMIC YEAR AND RULES ARE ALWAYS ON DISPLAY IN CLASSROOMS |
| Can question the “validity” of what they see on the Internet. Can use a browser address bar not just search box and shortcuts. Can think before sending and suggest consequences of sending/posting. Can recognise online behaviours that would be unfair.  | Can recognise social networking sites and social networking features built into other things (such as online games and handheld games consoles). Can make judgments in order to stay safe, whilst communicating with others online. Can tell an adult if anything worries them online. Can identify dangers when presented with scenarios, social networking profiles, etc. Can articulate examples of ʻgoodʼ and ʻbadʼ behaviour online.  | Can judge what sort of privacy settings might be relevant to reducing different risks. Can judge when to answer a question online and when not to. Can be a good online citizen and friend, not a ʻdigital bystanderʼ. Can articulate what constitutes good behaviour online. Can find and cite the web address for any information or resource found online. Can use different sources to double check information found.  | Can find report and flag buttons in commonly used sites and name sources of help (ChildLine, Cyber mentors, etc.) Can identify ʻclick-CEOPʼ button and explain to parents what it is for. Can discuss scenarios involving online risk. Can state the source of information found on the Internet. Can act as a role model for younger pupils.  |
| Text  | We are presenters Children use ‘word’ to show work from science or topic. Link with graphics and publisher. | We are co-authors (link to research)Children research online wikipedia type websites using esafe searches. Then collaboratively create a similar document linking to other area of curriculum | We are web developersCreation of ‘webpage’ developing links, removing and adding text, increasing size, adding images and sounds  | We are travel writersUse of topic to use media and mapping to write about a specific area |
| Can select text and change the font style, size and colour. Can select text and use Bold and Underline icons. Can confidently use the cursor (arrow) keys for simple on screen editing. Can use the scroll bars to view different parts of the document justify / align text. Can import graphics and add text.  | Can import graphics and use the Picture Toolbar to choose the text wrapping. Can use the spell checker. Can use Page Setup to choose Portrait or Landscape page as appropriate. Can learn how to insert and use a simple table. Can use the Zoom menu to view the whole page. Can use word art.  | Children should be given the opportunity to use their word processing skills in a range of contexts. Can change the layout of a document using centering and justification. Can use the tab key to format a list. Can import, position and manipulate graphics into word processing document. Can moving, resizing and reshaping text and graphics on a page.  | Children should be given the opportunity to use their word processing skills in a range of contexts. Can split cells in a table. Can merge cells in a table. Can insert/delete cells in a table. Can use Find, search and replace if appropriate.  |
| Graphics and publisher  | We are presentersChildren use ‘word’ to show work from science or topic, using images to support text. Link with text | We are website designers (link to ‘We are HTML editors from rising stars)Children create webpage and print this off at end. Add audience appropriate and esafe pictures, discuss copyright etc.  | We are web developers (see above) Also use ‘We are game developers’ for hyperlinks and presentation of different screens – are they appropriate for audience and purpose?  | We are marketersAs transition activity, children use a range of skills to present to their new teachers on our school and themselves as well.  |
| Can acquire, store and combine images from cameras or the Internet for a purpose. Can select certain areas of an image and resize, rotate an image. Can move text to different positions on a page. Can insert clipart Can add photographs Can cut and paste.  | Can use the print screen function to capture an image. Can edit pictures using various tools in paint or photo-manipulation software. Can use the rotational function in the text box. Can move/rotate clipart around the page. Can create and import a picture from a paint program. Can use undo/redo tool for immediate action only.  | Using previous skills as should have all been taught. Multimedia presentations. Can plan a layout or presentation to suit an audience Can create and redraft work combining text, graphics and sound. Can import photographs from a variety of sources. Can create a simple non-linear presentation. Can use transparent buttons and text links. Can use action buttons to move to and from a slide. Can insert hyperlinks  | Using previous skills as should have all been taught. Multimedia presentations. Can apply appropriate backgrounds. Can use timings on each effect. Can use rehearse timings before presenting to an audience  |
| Filming and Animations  | Children creating animation to present to class (will need to be half class taught)Initially using ‘we are bug finders’ idea to record and save using camera | We are meteorologistsChildren learn to film a sequence of films and images, adding text and then filming their own weather report. Evaluate as well.  | We are architectsChildren create a 3D model of a house or building linked to topic. Then film closeups to show it as full size model and add persuasive text and transition features | We are marketersUse of different features and possibility use of different apps e.g. imovie rather than powerpoint  |
| Can use a storyboard to edit a sequence of digital pictures or video with support. e.g. change sequence, add transitions, effects, and sound Can take a series of pictures to form a simple animation. Can move 1 item within their animation to create movement on playback. Can take a series of pictures to form an animation. Can edit and improve their animation.  | Can use a storyboard to edit a sequence of digital pictures or video independently. E.g. change sequence, add transitions, effects, and sound Can plan what they would like to happen in their film or animation. Can take a series of pictures to form a more complicated animation. Can move items within their animation to create movement on playback. Can begin to evaluate the suitability of the presentation for the given audience. Can make changes to the presentation to make it more suitable for the audience, with support.  | Can capture video for a purpose. Can discuss the quality of videos and chose which to keep and which to re-shoot. Can trim and arrange clips to convey meaning. Can add titles, credits, slide transitions, special effects and talk about the effect these have on the audience.  | Can plan a multi-scene animation including characters, scenes, camera angles and special effects. Can use stop-go animation software to shoot the animation frames. Can adjust the number of photographs taken and the playback rate to improve the quality of the animation. Can use a movie editing package to edit/refine and add titles. Can plan for the use of special effects/transitions to enhance their video. Can transfer footage to iMacs for more advanced editing. Can trim, arrange and edit audio levels of video to improve the quality of their outcome. Can add titles, credits, transitions, special effects. Can export their video in different formats for different purposes  |
| Sound  | We are network engineers – mainly focused on adding sound to filming and animations but also learning to use command prompts | We are musiciansCreation of weather sounds to link with We are meteorologists | We are artistsChildren create artwork using computer programme. Then compose accompanying music (could link to Kandinsky for example)  | Link to ‘We are app developers’Children create music to fit with their app |
| Can record sound on the computer and be able to use the sound files in other applications, with support.  | Can record and edit sound on the computer. Can use the sound files in other applications  | Can use music software to plan, create and play their own compositions. Can evaluate and modify (edit) their own compositions Can use a range of musical instruments in their compositions.  | Can use more sophisticated music software to plan, create, edit and play their own compositions.  |