

Computing Overview



Year group	Computer science Programming, coding and debugging	Digital Literacy and E-Safety Research using electronic data and the Internet and E-safety	E-Safety Rules for staying safe online	Application of IT Multi-media Combine text, data, graphics, video and sound	Application of IT visual Media Creating and manipulating digital images, animation and video.	Application of IT music and sound Manipulating digital sounds.	Application of IT Data Handling Collecting, using, manipulating, presenting and interpreting data.
1	Understand what an algorithm is through the use of controllable devices entering clear and accurate commands.	Find information from web sites directed to by the teacher. Learn to navigate around the sites using links. Start to experience electronic communication safely.	Know and abide by the school's rules for keeping safe online.	Type short piece of writing. Add images to text and work mainly from layouts provided.	Create pictures using basic features of a paint package. Take pictures with a digital camera so the teacher can add them to a given location.	Experiment with a range of devices which create and record sound	Create pictograms and sort information into groups.
2	Predict and enter more complex algorithm into floor/ screen robots/characters and create and debug a simple program.	With guidance, use child friendly online encyclopaedias, safe search sites to find information. Make choices about what information to include and what to discard.	Know and abide by the school's rules for keeping safe online.	Format simple documents that can be saved and opened later. Choose images to add to work making basic changes to them if needed. Also add sounds to work	Record still and video images. Review them and delete unwanted files. Learn to create stamps and change images. Create short animated sequences using on screen software.	Use an online audio library to find aural stimuli for drama and writing www.findsounds.com	Create block graphs and pictograms. Use a pre made branching database to answer questions.
3	Design, write and debug programs to control on screen characters or devices to solve a problem.	Search child friendly sites effectively to find key information to complete tasks. Make notes (hand	Know the school's rules for keeping safe online and be able to apply	Develop presentation of documents through the use of layout, spell checkers. Learn	Find and use images from a network location. Make changes to images so they	Use sound effects to accompany film/still images e.g. appropriate WAV files to accompany clip art	Create own charts and graphs. Create own branching databases. Be introduced to

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		written or on screen) from the information found. Cut, copy and paste concise, relevant sections of information.	these beyond school.	to cut, copy and paste text. Also leave short comments on blog posts	can be added to work. Be introduced to the concept of copyright. Create longer on screen animations.	or images to enhance a presentation.	databases and answer simple questions from an existing database.
4	Write a simple program and add sound and graphics. Consolidate existing abilities and transfer previously learnt programming skills and concepts between different programs.	Carefully choose keywords for searches. Examine results for accuracy and modify if necessary. Talk about a page of results and tell which sites will be useful by reading the search summary page. Also use safe search engines to find video, images and audio.	Know the school's rules for keeping safe online and be able to apply these beyond school.	Create multimedia presentations. Download and edit own photos to add to work. Start to analyse some features of good design. Also begin adding posts to blogs	Begin to use object based graphics packages, make basic edits to video and create short stop motion animations without audio or titles. Also use filters or effects to alter images.	Create a persuasive trailer for a film, with sound effects, music, voice-over and scanned children's art	Make a graph from information in a spreadsheet. Use 'sort' and 'search' in a database. Understand fields can be numeric or text based. Check the plausibility of own answers to search questions.
5	Create and refine a game for a given audience. Also create a program using inputs and outputs. Children are introduced to the concepts of selection and variables .	Use more than one source of information to cross reference findings. Convert findings for presentation in a digital format of choice. Begin to use the other functions in search engines (calculate conversions,	Know how to report an incident of cyber bullying if and when it occurs, according to the school's E-Safety policies and procedures /AUP.	Look at existing designs and judge them looking for clarity and consistency across all pages. Incorporate good design practice into work. Also deliver a	Children use an object based graphics package. They create short films and animations with audio and titles. Children prepare and export images for use in other programs or blogs.	Develop skills in manipulating sounds (such as reversing sounds, adding echo, altering speed ...) and use them appropriately considering audience and purpose	Create own simple database. Search a large database to answer questions. Represent findings in graphical form.

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		find distances) to gather pertinent information.		presentation to an audience			
6	Create a game of a specific genre for a target audience taking difficulty into consideration. Use conditions and variables in programs and learn to transfer procedures from one game to another.	Examine features of a web page to check for reliability of information. Cross reference results by using different search engines and encyclopaedias. Be aware of bias in results. Work independently using more than one search engine to find results and use information in a chosen digital format.	Understand that social network or other online environments have security settings, which can be altered, to protect the user.	Look at existing designs and judge them looking for clarity and consistency across all pages. Incorporate good design practice into work. Also deliver a presentation to an audience	Images / video/ animations are created with a greater focus on genre, purpose and audience. They choose the hardware and software most appropriate to each task. Children also use 3D design programs.	Add narration over film, video, animation, multimedia presentation, using a digital microphone	Collect and represent data to test a hypothesis and present findings. Choose the software used to collect, process and represent the information.