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|  | Computing systems and networks  Digital literacy | Creating media  Information technology | Data and information  Information technology | Programming  Computer science | Vocabulary |
| Year 1 | * I can recognise and name a range of digital devices, e.g. laptop, phone, games console. * I can log on to the school computer / unlock the school tablet with support. * I can identify the basic parts of a computer, e.g. mouse, keyboard, screen. * I can use a suitable access device (mouse, keyboard, touchscreen, switch). * I can explain why we use passwords and recognise examples of personal information * I know who to tell if concerned about content | * I can select basic tools/options to change the appearance of digital content, e.g. filter on an image / font / size of paintbrush. * I can combine media with support to present information, e.g. text and images. * I can type text using a keyboard | * I can describe objects using labels * I can find objects with similar properties * I can answer questions about groups of objects * I can decide how to group objects to answer a question * I can record and share what I have found | * I can create a simple program e.g. to control a floor robot. * I can predict the outcome of a simple algorithm or program. * I can explain what an algorithm is and create one * I can debug an error in a simple algorithm or program e.g. for a floor robot. | * Technology, Computer, mouse/trackpad, keyboard, screen, click, drag, draw, double-click, Input device, Shift, space bar, Safely, responsibly, computer, technology * paint program, tool, paintbrush, erase, fill, undo, shape tools, line tool, fill tool * Forwards, backwards, turn, clear, go, commands Instructions, algorithm, program * Word processor, backspace, toolbar, bold, italic, underline, * ScratchJr, Bee-Bot, command, sprite, compare, programming, , Block, joining, start block, run, background, delete, reset, algorithm, predict, effect, change, value, block program. |
| Year 2 | * I can explain how IT is used at home * I can explain how IT is used in different places * I can use a simple password to log onto the computer or a website. * I can identify rules for acceptable use of technology in school. * I know what personal information is and the need to keep it private. * I can recognise that some information found online may not be true. | * I can create simple digital content for a purpose, e.g. digital art. * I can capture, edit and improve my photos * Present ideas and information by combining media, e.g. text and images. * I can identify which photos are real and which have been changed | * I can recognise charts and pictograms and explain why we use them. * I can explain information shown in a simple chart or pictogram. * I can modify simple charts/pictograms, e.g. add title, item or labels. * I can identify the key features of a chart or pictogram. * I can collect and present data on a topic | * I can predict the outcome of an algorithm or program with multiple steps. * I can identify and correct errors in a given algorithm or program, and recognise the term debugging. * I can explain what an algorithm and program are * I can plan out a program by creating an algorithm, and evaluate its success. | * Information technology (IT), computer, barcode, scanner/scan * Device, camera, photograph, capture, image, digital   Framing, focal point, subject matter, field of view, format, compose  Natural lighting, artificial lighting,   * Instruction, sequence, clear, unambiguous, algorithm, program * Debugging, command, program, run, program, start Sprite, design, modify, change * organise, data, object, tally chart, votes,   Pictogram, Attribute, group, |
| Year 3 | * I can describe what a computer is (input > process > output). * I can recognise that school computers are connected. * Keeping password safe * When not to share personal info * Games/films have age ratings | * I can present ideas and information by combining media independently, e.g. text and images. * I can design and create simple digital content for a purpose/audience, e.g. poster. * I can edit digital content to improve it, e.g. resize text. | * I can use a branching database * I can create a branching database * I can identify the features of a good question in a branching database. * I can evaluate a given branching database and suggest improvements | * Modify an existing program, * Create examples of algorithms containing count-controlled loops. * Use a forever loop in a program to keep something happening. * Identify errors in a block or text-based program and correct them. * Recognise that different inputs can be used to control a program | * Digital device, input, output, process Program Connection, network, network switch, server, wireless access point (WAP) * Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop Sequence, event, task, design, code, run the code Design, algorithm, bug, debug * Branching database, database, attribute, value, questions, objects, equal, even, separate * Text, images Landscape, portrait, orientation, placeholder, template * Motion, event, sprite, algorithm, logic Move, resize, extension block, |
| Year 4 | * Remember and use an individual password. * Recognise what kinds of websites are trustworthy sources of information. * Recognise the benefits and risks of different apps and websites. * Recognise that the media can portray groups of people differently. * Can rate a game or film they have made and explain their rating | * Collect, organise and present information using a range of media. * Design, create and edit digital content for a specific purpose * Identify the features of a good piece of digital content and apply these in own design. * Know where to find copyrightfree content, e.g. creative images. * Collaborate with peers using online tools | * Draw conclusions from information stored in a database, chart or table. * Design a questionnaire and collect a range of data on a theme. * Choose appropriate formats to present data to convey information | * Create a program using a range of   events/inputs to control what happens.   * Explain when to use forever loops and count-controlled loops, and use them in programs. * Recognise selection in a program or algorithm. * Use selection in algorithms in programs e.g. if…then… * Design a program for a purpose. * Recognise common mistakes in programs and how to correct them. | * Internet, network, router, network security Network switch, server, wireless access point (WAP), router, route tracing, browser content, download, sharing, ownership, permission * Program, turtle, commands, code snippet Algorithm, design, debug, Logo commands, Pattern, repeat, repetition, count-controlled loop, algorithm, * Data, table (layout) Input device, sensor, data logger, data point, interval, analyse, data set, import, export * Scratch, programming, sprite, blocks, code, loop, repeat, value, Block, forever, infinite loop, count-controlled loop, costume  design, algorithm, duplicate, debug, refine, evaluate |
| Year 5 | * I can explain the difference between the internet and the World Wide Web; and between a search engine and a web browser * I can perform a complex search for information * Know where to find copyright free images and audio, and why this is important. – * Critically evaluate websites for reliability of information and authenticity. | * Use different drawing tools to create images * Create images by layering and duplicating images to create more complex pieces of work * Evaluate and improve their own designs | * I know the difference between data and information * I can perform a search to answer questions about data * I can create graphs and charts from data | * Name a range of sensors in physical systems * Predict what will happen in a program or algorithm when the input changes * Use two-way selection i.e. if… then…else… * Recognise variables in a program * Create programs including ‘repeat until’ loops. * Create and use simple variables, e.g. to keep score. * Create an algorithm for a physical system (with sensor) | * System, connection, digital, input, process, output Protocol, address, packet * Microcontroller, Crumble controller, components, LED, Sparkle, program, repetition, infinite loop , selection, controlled loop,Task, design, selection, condition, action, microcontroller, algorithm, * Database, data, information, record, field, sort, order, group  graph, chart, axis, compare, filter * Vector, drawing tools, shapes, object, icons, toolbar organise, zoom, select, rotate, object, alignment grid, resize, handles, consistency, |
| Year 6 | * Explain what makes a strong password and why this is important at school and in the wider world. * Explain how algorithms are used to track online activities with a view to targeting advertising and information. * Know that there are laws around the purchase of games; the production, sending and storage of images; what is written online; and around online gambling | * Select, combine and remix a range of media to create original content. * Consider all steps of the design process when creating content (e.g. identify problem, plan, create, evaluate, share.) * Identify the most effective tools to present information for a specific purpose. | * Recognise what a spreadsheet is and what it is used for. * Use simple formulae in a spreadsheet to find out information from a set of data. * Collect data for a purpose and plan out a spreadsheet to present it effectively, using relevant formulae. * Produce graphs from data in a spreadsheet to answer a question. * Analyse and evaluate data and information in a spreadsheet, chart or database. | * Design and program a system that uses sensors. * Recognise and use procedures (sub-routines) in programs. * Plan out a program in detail, including task, algorithm, code and execution level. * Use nested selection statements in a program * Combine a variable with relational operators (< = >) to determine when a program changes * Recognise key concepts (sequence, selection, repetition and variables) | * refine index, crawler, bot, search engine, Ranking, Website, web page, browser, media, Hypertext Markup Language (HTML) Web page, website, logo, layout, header, media, purpose Copyright, fair use, hyperlink, * Variable, name, value, set, change   Task, algorithm, design, artwork, program, project, code, test, debug   * Spreadsheet, data, data heading, data set, cells, columns and rows, Formula, calculation, input, output. cells, cell reference * 2D, 3D, Rotate, position, select, duplicate Dimensions, placeholder, * Micro:bit, MakeCode, input, process, output, flashing, USB Selection, condition, if… then… else, variable, random accelerometer |