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|  | Computing systems and networksDigital literacy | Creating mediaInformation technology | Data and informationInformation technology | ProgrammingComputer 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.
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| 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,
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| 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
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| 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,
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| 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
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