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|  | EYFS | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 |
| **Creating Media Units** | - Use technology to explore and access digital content.  - Operate a digital device with support to fulfil a task.  - Create simple digital content, e.g. digital art.  - Choose media to convey information, e.g. image for a poster. | - Create digital content, e.g. digital art. - Choose media from a selection (e.g. images, video, and sound) to present information on a topic.  - Recognise that you can find out information from a website.  - Recognise that you can edit digital content to change its appearance.  - Select basic tools/options to change the appearance of digital content, e.g. filter on an image / font / size of paintbrush.  - Combine media with support to present information, e.g. text and images. | - Create simple digital content for a purpose, e.g. digital art.  - Recognise that we can use technology to record and playback audio or take and view photographs.  - Apply edits to digital content to achieve a particular effect, e.g. emphasise part of a text.  - Present ideas and information by combining media, e.g. text and images.  - Explain that you can search for information on the internet.  - Plan out digital content, e.g. a simple sketch or storyboard.  - Identify the common features of digital content, e.g. title, images.  - Recognise that we can use different types of media to convey information, e.g. text, image, audio, and video. | Present ideas and information by combining media independently, e.g. text and images.  - Design and create simple digital content for a purpose/audience, e.g. poster.  - Edit digital content to improve it, e.g. resize text.  - Identify the features of a good piece of digital content.  - Explain why we use technology to create digital content.  - Recognise why we use different types of media to convey information, e.g. text, image, audio, and video. | - Collect, organise and present information using a range of media.  - Design and create digital content for a specific purpose, e.g. poster, animation.  - Edit digital content to improve it according to feedback.  - Identify the features of a good piece of digital content and apply these in own design.  - Explain the benefits of using technology to present information.  - Know where to find copyright-free content, e.g. creative commons images.  - Collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365, if available. | - Identify and use appropriate hardware and software to fulfil a specific task.  - Remix and edit a range of existing and their own media to create content.  - Consider the audience when designing and creating digital content.  - Recognise the benefits of using technology to collaborate with others  - Identify success criteria for creating digital content for a given purpose and audience.  - Evaluate their own content against success criteria and make improvements accordingly. | - 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, and share.)  - Identify the most effective tools to present information for a specific purpose.  - Explain the benefits of using technology to collaborate with others.  - Evaluate existing digital content in terms of effectiveness and design. |

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| **Data and Information Units** | - Access content in a range of formats, e.g. image, video, audio.  - Answer basic questions about information displayed in images e.g. more or less. | - Recognise different forms of digital content, i.e. text, image, video and audio.  - Collect simple data (e.g. likes/dislikes) on a topic.  - Present simple data using images, e.g. number of animals.  - Recognise charts and pictograms and why we use them.  - Explain information shown in a simple chart or pictogram.  - Modify simple charts/pictograms, e.g. add title, item or labels.  - Identify the key features of a chart or pictogram.  - Collect data on a topic (eye colour, pets etc.) and present in a pictogram or chart. | -Identify different forms of digital content, i.e. text, image, video and audio.  - Recognise charts, pictograms and branching databases, and why we use them.  - Identify an object using a branching database  - Recognise an error in a branching database.  - Create a branching database using pre-prepared images and questions  - Identify the features of a good question in a branching database.  - Independently plan out and create a branching database.  - Evaluate a given branching database and suggest improvements. | - Recognise charts, pictograms and databases, and why we use them.  - Present information using a suitable chart  - Explore a record card database to find out information.  - Use filters in a database to find out specific information.  - Name the key parts of a database, e.g. record, field, search.  - Answer questions about information in a database.  - Name some benefits of using a computer to create charts and databases.  - Recognise that search engines store information in databases. | - 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.  - Recognise that school computers are connected together on a network.  - Recognise that the Internet is made up of computers and other digital devices connected together all around the world.  - Know that you use a web browser to access information stored on the internet.  - Appreciate that you need to use specific software to work with video, images, audio etc. | Explain the difference between data and information.  - Appreciate that different programs work with different types of data, e.g. text, number, video.  - Explain the difference between the Internet and the World Wide Web.  - Know the difference between a search engine and a web browser.  - Explain the basics of how search engines work, and that different search engines may give different results.  - Perform complex searches for information using advanced settings in search engines.  - Recognise the benefits and risks of sharing data online. | - Recognise what a spreadsheet is and what it is used for.  - Explain the difference between physical, mobile and wireless networks.  - 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.  - Recognise that poor quality data leads to unreliable results. |

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|  | EYFS | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 |
| **Programming Units (covering algorithms)** | - Explore technology. - Repeat an action with technology to trigger a specific outcome.  - Recognise the success or failure of an action.  - Follow simple instructions to control a digital device.  - Recognise that we control computers.  - Input a short sequence of instructions to control a device. | - Recognise that computers don’t have a brain.  - Explain that we control computers by giving them instructions.  - Create a simple program e.g. to control a floor robot.  - Create a simple algorithm.  Predict the outcome of a simple algorithm or program.  - Explain what an algorithm is – a sequence of instructions to make something happen.  - Recognise that the order of instructions in an algorithm is important. - Debug an error in a simple algorithm or program e.g. for a floor robot. | Explain that computers have no intelligence and we have to program them to do things.  - Create a program with multiple steps e.g. to control a floor robot.  - Predict the outcome of an algorithm or program with multiple steps.  - Recognise that the instructions in an algorithm need to be clear and unambiguous.  - Identify and correct errors in a given algorithm or program, and recognise the term debugging.  - Explain what an algorithm is, and that when inputted on a computer it is called a program.  - Plan out a program by creating an algorithm, and evaluate its success. | - Predict the outcome of a block or text-based program (Scratch/Logo).  - Successfully modify an existing program, e.g. change background, number of times things happen.  - Identify repeated steps in a program or algorithm.  - Create examples of algorithms containing count-controlled loops.  - Use a count-controlled loop (e.g. repeat 3 times) to make a program more efficient.  - Recognise that we can create an algorithm to help plan out a program.  - Recognise a forever loop in a program or algorithm.  - 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. | - Create a program using a range of events/inputs to control what happens.  - Recognise that we can decompose a problem into smaller parts to help solve it.  - 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 to alter what happens when a condition changes, e.g. if…then…  - Design a program for a purpose.  - Decompose into parts and create an algorithm for each one.  - Recognise common mistakes in programs and how to correct them. | - Name a range of sensors in physical systems.  - Recognise that different solutions may exist for the same problem.  - Predict what will happen in a program or algorithm when the input changes (e.g. sensor, data or event).  - Use two-way selection in programs and algorithms, i.e. if…then…else…  - Recognise variables in a program and what they do.  - Create programs including repeat until loops.  - Create and use simple variables, e.g. to keep score.  - Evaluate a program and make improvements to the code or design accordingly.  - Create an algorithm for a physical system containing a sensor | Design and program a physical computing 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.  - Explain common errors in programs and how to fix them.  - Use nested selection statements in a program or algorithm effectively.  - Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say “well done”.  - Recognise key concepts (sequence, selection, repetition and range of languages and contexts. |

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| **Digital Literacy (please see Project Evolve for Online Safety Progression)** | - Are aware that some online content is inappropriate.  - Are aware that information can be public or private.  - Know to tell an appropriate adult if they see something on the computer that upsets them. | --Use a simple password when logging on, where relevant.  - Explain why we use passwords.  - Recognise examples of personal information e.g. name, image.  - Know who to tell if concerned about content or contact online.  - Recognise that digital content belongs to the person who created it.  - Talk about their use of technology at home. | - Remember a simple password to log onto the computer or a website.  - Identify rules for acceptable use of technology in school.  - Recognise what personal information is and the need to keep it private.  - Recognise that spending a lot of time in front of a screen can be unhealthy.  - Recognise that some information found online may not be true. | - Explain why we need to keep our password safe.  - Recognise that digital content belongs to the person who first created it, but we can give permission for others to use it.  - Recognise when to share personal information and when not to.  - Recognise that some people lie about who they are online.  - Are aware that games and films have age ratings. | - 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. | - Know where to find copyright free images and audio, and why this is important.  - Critically evaluate websites for reliability of information and authenticity.  - Demonstrate responsible use of online services, and know a range of ways to report concerns. | - 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. |

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|  | EYFS | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 |
| **Computing Systems And Networks** | - Use different digital devices.  - Recognise that you can access content on a digital device.  - Use a mouse, touchscreen or appropriate access device to target and select options on screen.  - Recognise a selection of digital devices.  - Recognise the basic parts of a computer, e.g. mouse, screen, and keyboard.  - Select a digital device to fulfil a specific task, e.g. to take a photo. | - Recognise a range of digital devices.  - Select a digital device to fulfil a specific task, e.g. to take a photo.  - Name a range of digital devices, e.g. laptop, phone, games console.  - Log on to the school computer / unlock the school tablet with support.  - Identify the basic parts of a computer, e.g. mouse, keyboard, screen.  - Use a suitable access device (mouse, keyboard, touchscreen, and switch) to access and control an activity on a computer.  - Open key applications independently. - Save and open files with support. - Add an image to a document from a given folder/source with support. | - Recognise what a computer is (input > process > output).  - Recognise that a range of digital devices contain computers, e.g. phone, games console, smart speaker.  - Explain what the basic parts of a computer are used for.  - Identify and use input devices, e.g. mouse, keyboard; and output devices, e.g. speakers, screen.  - Open key applications independently.  - Save and open files to/from a given folder.  - Add an image to a document from a given folder/source.  - Resize an image in a document.  - Highlight text and use arrow keys.  - Capture media independently (e.g. take photos, record audio). | - Describe what a computer is  (Input > process > output).  - Explain the difference between input and output devices on a computer.  - Know where to save and open files (e.g. in-shared folder).  - Save files with appropriate names.  - Use a keyboard effectively to type in text.  - Use left-, right- and double-click on the mouse.  - Add an image to a document from the internet. - Resize and move an image in a document.  - Use a search engine to find simple information.  - Recognise that school computers are connected. | - Recognise that you can organise files using folders.  - Explain what a good file name would look like.  - Delete and move files.  - Use key parts of a keyboard effectively, e.g. shift, arrow keys, delete).  - Know how to copy and paste text or images in a document.  - Crop an image and apply simple filters.  - Use a search engine to find specific information.  - Recognise that school computers are connected together on a network. | - Type using fingers on both hands.  - Use common keyboard shortcuts, e.g. ctrl C (copy), ctrl V (paste).  - Explain what makes a strong password.  - Use folders to organise files.  - Know how to mute and unmute audio on a computer or tablet.  - Recognise that there is more than one search engine, and they may produce different results.  - Use a search engine effectively to find information and images.  - Know how to search for an application on a computer/tablet. | - Type efficiently using both hands.  - Use a range of keyboard shortcuts.  - Recognise that different devices may have different operating systems.  - Organise files effectively using folders and files names.  - Use the advanced search tools when using a search engine to find specific information and images.  - Explain the basic function of an operating system.  - Recognise common file types and  extensions e.g. jpeg, png, doc, wav  - Recognise a range of Internet services, e.g. email, VOIP (e.g.  Skype, FaceTime), World Wide Web, and what they do. |