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| **Early Years Foundation Stage** | **Three and Four-Year Olds** | **Reception** |
| Increasingly follow rules, understanding why they are important.  Match their developing physical skills to tasks and activities in the setting.  Explore how things work. | Show resilience and perseverance in the face of a challenge.  Develop their small motor skills so that they can use a range of tools competently, safely and confidently.  Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of ‘screen time’.  Explore, use and refine a variety of artistic effects to express their ideas and feelings. |

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| **Year 1**  **1** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Recognising uses of information technology  Understand what is meant by technology  Can give example of technology both in and out of school.  Know the difference between objects that use modern technology and those that do not e.g. microwave vs a chair  I can explain rules to keep us safe when we are using technology both in and beyond the home. \*  I can give examples of some of these rules. \*  Using technology safely and respectfully  Save work to Purple Mash  I can describe how to behave online in ways that do not upset others and can give examples.\*  I can recognise that there may be people online who could make me feel sad, embarrassed or upset. \*  If something happens that makes me feel sad, worried, uncomfortable or frightened. \*  I can give examples of when and how to speak to an adult I can trust and how they can help. \*  I can describe what information I should not put online without asking a trusted adult first. \*  I can explain why it is important to be considerate and kind to people online and to respect their choices. \*  I can give simple examples of how to find information using digital technologies, e.g. search engines, voice activated searching. \* | Understanding of Algorithms  Explain what a given command does  Build a sequence of commands in steps  Creating and debugging simple programs  Understand that a programme is a set of commands a computer can run  Logical Reasoning  Predict the outcome of a command | Using technology purposefully  Can name, save and retrieve their work  Follow simple instructions to access online resources  Add sound, pictures and text to a program.  Change content on a file such as text, sound and images  I know that work I create belongs to me. \*  I can explain why work I create using technology belongs to me. \*  I can say why it belongs to me (e.g. ‘It is my idea’ or ‘I designed it’). \* |
| Skills used in Purple Mash Units  **Animated story books**  Add text and change the colour, font and size  Add animations  Add sound  Add backgrounds  Add pages |
| **Vocab** | Online Safety and Exploring Purple Mash: Log in, Username, password, Avatar, Log out, Save, Notification  Technology Outside of School: Technology  Animated Story Books: Animation, E-Book, Font, File, Sound Effect, Display Board  Coding: ScratchJr, command, sprite, compare, programming, programming area, Block, joining, command, **Start** block, run, program, background, delete, reset, algorithm, predict , effect, change, value, design | | | |

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| **Year 2** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Recognising uses of information technology  Can effectively retrieve relevant, purposeful digital content using a search engine  I can use simple keywords in search engines.\*  I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).\*  Using technology safely and respectfully  Understand how to use the Purple Mash search bar and know the implications of inappropriate searches  Know how to report inappropriate content to their teacher  I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help.\*  I can give examples of how someone might use technology to communicate with others they don’t also know offline and explain why this might be risky. (e.g. email, online gaming, a pen-pal in another school / country).\*  I understand how bullying can make someone feel.\*  I know who to talk to if something has been put online without consent or if it is incorrect\*  I can explain how passwords can be used to protect information, accounts and devices.\* | Understanding of Algorithms  Explain what happens when we change the order of instructions  Choose a series of commands that can run as a programme  Creating and debugging programs  Create and debug a program that I have written  Logical Reasoning  Trace a sequence to make a prediction  Test a prediction by running a sequence | Using technology purposefully  Confident when creating, naming, saving and retrieving content on Purple Mash  Use a range of media in their digital content including photos, texts and sound.  organise data – for example, using a database such as 2Investigate  find data using specific searches – for example, using 2Investigate |
| Skills used in Purple Mash Units  **Presenting ideas**  Add appropriate clipart  Add appropriate photos  Create content to achieve a goal  Talk about work and make improvements |
| **Vocab** | Online Safety: Search, Internet, Sharing, Digital footprint, Email  Effective Searching: Internet, Search, Search engine  Coding: Sequence, command, program, run, start, outcome, predict, blocks, sprite, algorithm, blocks, design, actions, project, design, modify, change, compare, design, debug, program, features, evaluate  Presenting Ideas: Concept map, Presentation, Audience, Node | | |

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| **Year 3** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Using technology safely  Understand the importance of staying safe when using email  They know more than one way to report unacceptable content and contact.  I can explain what is meant by the term ‘identity’.\*  I can explain how people can represent themselves in different ways online.\*  I can explain ways in which someone might change their identity depending on what they are doing online (e.g. gaming; using an avatar; social media) and why.\*  I can describe ways people who have similar likes and interests can get together online.\*  I can explain how to search for information about others online.\*  I can describe appropriate ways to behave towards other people online and why this is important.\*  I can give examples of how bullying behaviour could appear online and how someone can get support.\* | Designing, writing and debugging programs  Explain that programs have a start  Order commands in a programme  Explain that the order of commands can affect the outcome  Using sequence, selection and repetition in programs and inputs and outputs  Explain what a sequence is  Create a sequence of commands to produce a given outcome  Using logical reasoning  Identify that different sequences can achieve the same outcome  Understanding computer networks including the internet  List a range of ways that the internet can be used to provide different methods of communication  Recognise the main component parts of hardware which allow computers to join and form a network | Selecting, using and combining software  Consider what software is most appropriate for a given task.  Create purposeful content to attach to emails  collect data and input it into software  analyse data using features within software to help such as, formula in 2Calculate  present data and information using different software  Using search technologies  I can demonstrate how to use key phrases in search engines to gather accurate information online.\*  I can explain what autocomplete is and how to choose the best suggestion.\* |
| Skills used in Purple Mash Units  **Email**  Read and respond to e-mails  Send an e-mail using an address book  Add an attachment to an e-mail.  Download and attachment from an email  **Branching Databases**  Sort objects using just ‘yes’ or ‘no’.  Complete a branching database  Select and save appropriate images |
| **Vocab** | Touch typing- Posture, Top/ Home/Bottom row keys, Space bar  Coding- Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, code, run the code, algorithm, bug, debug  Emails- Communication, Email, Send, Attachment, Address Book, Password  Branching Databases- Branching Database, Data, Database  Hardware Investigators- Motherboard, CPU, RAM, Graphics card, Network Card, Monitor, Speakers, Keyboard, Mouse | | |

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| **Year 4** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Using technology safely  I can explain how my online identity can be different to my offline identity.\*  I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.\*  I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this.\*  I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.\*  I can describe how to find out information about others by searching online.\*  I can explain ways that some of the information about anyone online could have been created, copied or shared by others.\*  I can recognise when someone is upset, hurt or angry online. \*  I can explain how using technology can be a distraction from other things, in both a positive and negative way.\*  I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours.\*  I can describe strategies for keeping personal information private, depending on context.\*  I can explain what a strong password is and demonstrate how to create one.\*  Be discerning in evaluating digital content  Analyse the contents of a web page for clues about the credibility of the information. | Designing, writing and debugging programs  Plan a programme that includes appropriate loops to produce a given outcome.  Identify an error within a program.  Debug their own programs.  Using sequence, selection and repetition in programs and inputs and outputs  Explain what repetition is  Explain that in programming there are indefinite and count- controlled loops  Using logical reasoning  Justify when to use a loop and when not to  Explain the importance of instruction order in a loop | Selecting, using and combining software  Make improvements to digital solutions based on feedback.  Create linked content using a range of software.  Using search technologies  Understand the purpose of a search engine and the main features within it.. |
| Skills used in Purple Mash Units  **Animation**  Storyboard a short animation - what would happen and when  Effectively plan for an animation and use purposefully  Take a series of pictures to form a animation  Move items within an animation to create movement on playback.  Save images at stages to compare my work and talk about the changes.  **3D modelling**  Design a 3D model using ICT to meet a specific goal, e.g. 2design 3D  Evaluate and improve my finished designs. |
| **Vocab** | Coding- Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, infinite loop, count-controlled loop, costume, repetition, animate, costume, event block, modify, design, algorithm, duplicate, debug, refine, evaluate  Animation- Animation, Frame, Onion skinning, Background, Play, stop motion  3D Modelling- CAD(Computer aided design, Modelling, 3D, Viewpoint, 2D, Net, Points, Template  Effective Searching- Easter Egg, Internet, Internet Browser, Search, Search Engine, Spoof website, Website | | |

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| **Year 5** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Using technology safely  Have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services.  I can explain how identity online can be copied, modified or altered.    I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise that this is not my / our fault.  I can explain how many free apps or services may read and share private information (e.g. friends, contacts, likes, images, videos, voice, messages, geolocation) with others.   I can describe ways technology can affect health and well-being both positively (e.g. mindfulness apps) and negatively.  I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences.    -I can assess and justify when it is acceptable to use the work of others.  -I can give examples of content that is  permitted to be reused and know how this content can be found online.  Be discerning in evaluating digital content  -I can explain what is meant by ‘being sceptical’; I can give examples of when and why it is important to be ‘sceptical’.  -I can evaluate digital content and can explain how to make choices about what is trustworthy e.g. differentiating between adverts and search results.  -I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence. | Designing, writing and debugging programs  Design, create and evaluate a program  Use a condition in an ‘if... then…’ statement to produce a given outcome  Use a condition in an ‘if... then... else...’ statement to produce given outcomes  Using sequence, selection and repetition in programs and inputs and outputs  Explain how selection is used in computer programmes  Explain how selection directs the flow of a programme  Using logical reasoning  Explain that instructions in a program will produce specific outcomes  Explain the importance of instruction order in ‘if... then... else...’ statements | Selecting, using and combining software  Make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution |
| Skills used in Purple Mash Units  **Data bases**  Learn how to search for information in a database  Contribute to a class database  Create a database around a chosen topic  Design and enter information accurately into their own database and create questions to ask classmates  Use search functionalities to answer questions  **Game creator**  Use a given success criteria to review and analyse what makes a successful computer game  Consider the end of their game by designing appropriate settings and characters that maintain a user’s interest  Objectively review and evaluate a range of completed games |
| **Vocab** | Coding- Selection, condition, true, false, count-controlled loop, outcomes, conditional statement (the linking together of a condition and outcomes), algorithm, program, debug, task, design, input, Implement, design, test, run, Implement, design, setup, share, evaluate  Databases- Avatar, Branching Database, Charts, Collaborative, Data, Database, Find, Record, Sort, Group, Statistics, Reports, Table  Game Creator- Animation, Computer Game, Customise, Evaluation, Image, Instructions, Interactive, Screenshot, Texture, Perspective, Playability | | |

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| **Year 6** | **Digital Literacy** | **Computer Science** | **Information Technology** |
| Using technology safely  Demonstrate the safe and respectful use of a range of different technologies and online services.  -I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened. I know and can give examples of how to get help, both on and offline.  -I can explain the importance of asking until I get the help needed.  I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g. scams, phishing).  I can describe how to capture bullying content as evidence (e.g screen-grab, URL, profile) to share with others who can help me.  -I can demonstrate the use of search tools to find and access online content which can be reused by others.  -I can demonstrate how to make references to and acknowledge sources I have used from the internet.    **Online Reputation**:  I can explain the ways in which anyone can develop a positive online reputation.  Be discerning in evaluating digital content  -I can demonstrate how to analyse and evaluate the validity of ‘facts’ and information and I can explain why using these strategies are important.  -I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this. | Designing, writing and debugging programs  decide where in a program to set a variable  update a variable with a user input  use a variable in a conditional statement to control the flow of a program  Using logical reasoning  define ‘variable’ as something that is changeable  explain that a variable has a name and a value  identify a variable in an existing program  Understanding computer networks including the internet  Recognise the approval process that their posts go through  Explain the difference between the internet and World Wide Web  Know what a WAN and LAN are and can describe how they access the internet | Selecting, using and combining software  Use a criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.  Design and create their own blogs to become a content creator on the internet, e.g. 2Blog.  Consider the audience, their ability and interests and make decisions based upon this.  Using search technologies  Apply filters when searching for digital content\* |
| Skills used in Purple Mash Units  **2DIY/ 2Quiz**  Plan, design and create various quizzes using a variety of software- 2DIY and 2Quiz  Choose the appropriate software for the questions they want to ask  Give and respond to feedback, they edit and redesign the quizzes accordingly |
| **Vocab** | Coding- Variable, change, name, value, set, design, event, algorithm, code, task, program, project, code, test, debug, improve, evaluate, share  Blogging- Audience, Blog, Blog Page, Blog Post, Collaborative, Icon  Quizzing- Audience, Collaboration, Concept Map, Database, Quiz  Networks- Internet, World Wide Web, Network, Local Area Network (LAN), Wide area Network (WAN), Router, Network Cable, Wireless | | |