

Computing Long Term Map 2023/24 – *Internet Safety Curriculum included below*

	Autumn Term	Spring Term	Summer Term
Phase 0 Key Vocab to be taught across topics <i>Choices, Internet, Website, Equipment, Buttons, Movement, Screen, Mouse, Images, Keyboard, Technology,</i>	<p><u>Computer Systems and Networks: Using a computer</u></p> <p><i>Pupils Learning about the main parts of a computer and how to use the keyboard and mouse. Logging in and out</i></p> <p>Lesson 1: Keyboards Lesson 2: Logging In and Out Lesson 3: Mouse Control - Basics Lesson 4: Mouse Control – Clicking Lesson 5: Mouse Control - Dragging</p> <p>Vocabulary: Computer, Tower, Monitor, Keyboard, Mouse, Letters, Numbers, Uppercase, Lowercase, Type, Log In, Log Out, Protect, Password, Security, Lock, Personal, Left-Click, Right-Click, Arrow, Cursor, Drag, Drop, Move,</p> <p>CC Links:</p>	<p><u>Programming: All About Instructions</u></p> <p><i>Pupils learn to receive and give instructions and understand the importance of precise instructions</i></p> <p>Lesson 1: Following Instructions Lesson 2: Giving Simple Instructions Lesson 3: Dressing Up Instructions Lesson 4: Debugging Instructions Lesson 5: Predictions</p> <p>Vocabulary: Instructions, Blindfold, Step over, Walk around, Turn, Left, Right, To the side, Straight on, Stand still, Stop, Duck, Under, Bend down, Walk, Hop, Tiptoe, Shuffle, Skip, Run, Timer, Describe, Adjective, Algorithm, Order, Sequence, Predict, Next, First, Second, Third,</p> <p>CC Links:</p>	<p><u>Data Handling: Introduction to Data</u></p> <p><i>Pupils sort and categorise data and are introduced to branching databases and pictograms</i></p> <p>Lesson 1: Loose Parts Play Lesson 2: Sorting Ourselves Lesson 3: Yes or No Lesson 4: Creating a Database Lesson 5: Exploring Pictograms</p> <p>Vocabulary: Sort, Categorise, Category, Group, Describe, Texture, Colour, Pattern, Size, Weight, Height, Length, More, Less, Count, In total, Altogether, Share, Divide, Equal, Bigger than, Smaller than, Thicker than, Thinner than, Share, Divide, Equal, Pattern, Size, Weight,</p> <p>CC Links:</p>

<p>Phase 1</p> <p>Key Vocab to be taught across topics</p> <p><i>Equipment, Buttons, Movement, Screen, Mouse, Images, Keyboard, Paint,</i></p>	<p><u>Data Analysis: Introduction to Data</u></p> <p><i>Learn what data is and the different ways that it can be represented, both with and without a computer before developing an understanding of why data is useful, how it can be used and the ways in which it can be gathered and recorded both by humans and computers</i></p> <p>Lesson 1: Zoo Data Lesson 2: Picture Data Lesson 3: Minibeast Hunt Lesson 4: Animal Databases Lesson 5: Inventions</p> <p>Vocabulary: <i>Data, Information, Map, Objects, Mouse, Click, Chart(s), Values, Experiment, Drag, Pictogram, Representation, Count, Tally, Process, Branching Database, Edit</i></p> <p>CC Links: Science Phase 1 – Plants and Humans Science Phase 4 – Electricity Science Phase 4 – Am I top of the food chain?</p>	<p><u>Creating Media: Digital Imagery</u></p> <p><i>Development of keyboard and mouse skills through designing, building and testing individual rockets by creating a digital list of materials, using drawing software and recording data, as well as developing computational skills through sequencing and debugging a set of instructions</i></p> <p>Lesson 1: Planning a Story Lesson 2: Taking Photos Lesson 3: Editing Photos Lesson 4: Searching for Images Lesson 5: Photo Collage</p> <p>Vocabulary: <i>Pictorial Story, Image, Sequence, Plan, Photo, Pictures, Screen, Camera, Digital, Device, Deleting, Storage Space, Visual Effects, Software, Camera, Tablet, Crop, Feature, Import, Online, Key Feature, Props, Edit, Drag, Drop, Download, Orientation, Resize</i></p> <p>CC Links: Science Phase 2 – The Planets Science Phase 4 – Electricity</p>	<p><u>Data Analysis: Introduction to Data</u></p> <p><i>Learn about word processing and how to stay safe online as well developing touch typing skills. Introduce important keyboard shortcuts, as well as simple editing tools within a word processor including: bold, italics, underline and font colour as well as how to import images</i></p> <p>Lesson 1: Getting to know the Keyboard Lesson 2: Word Processing Lesson 3: Newspaper Writer Lesson 4: Poetry Book Lesson 5: What happens when I look online?</p> <p>Vocabulary: <i>Keyboard, Touch Type, Backspace, Delete, Space Bar, Word Processing Software, Highlight, Undo, Redo, Bold, Italics, Underline, Bold, Back, Forward, Home, Image, Import, Italic, Navigate, Text, Layout, Effects,</i></p> <p>CC Links: Science Phase 4 – Electricity</p> <p><u>BV Links</u> Individual liberty The rule of law</p>
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<p>Phase 2</p> <p>Key Vocab to be taught across topics</p> <p><i>Instructions, Buttons, Program, Space Bar, Purpose, Mouse, Screen,</i></p>	<p><u>Google: Emailing</u></p> <p><i>Being able to send an email is a valuable skill. Children learn how to send emails with attachments and how to be a responsible digital citizen by thinking about the contents of what is sent. The area of cyberbullying; both how to recognise it and how to avoid being unkind online, is also introduced</i></p> <p>Lesson 1: Sending an Email Lesson 2: Adding Attachments Lesson 3: Be Kind Online Lesson 4: Cyber Bullying Lesson 5: Fake Emails</p> <p>Vocabulary: <i>Email, Information, Responsible, Wi-Fi, Username, Domain, Address, Password, Settings, Account, Compose, Subject Bar, Link, Emoji, Spam, Icons, Content, Tone of Voice, Body Language, Positive Language, Negative Language, CC, BCC, Decision Tree, Advice, Email Account, Flowchart, Install, Hacker, Scammer, Virus, Mark as Spam, Spam Email,</i></p> <p>CC Links: Science Phase 4 - Electricity</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p><u>Skills Showcase: Rocket to the Moon</u></p> <p><i>Development of keyboard and mouse skills through designing, building and testing individual rockets by creating a digital list of materials, using drawing software and recording data, as well as developing computational skills through sequencing and debugging a set of instructions</i></p> <p>Lesson 1: Rocket Materials Lesson 2: Rocket Design Lesson 3: Rocket Building Instructions Lesson 4: Making a Rocket</p> <p>Vocabulary: <i>Rocket, Materials, Digital Content, List, Create, Identify, Physical Properties, Computer, Saved, Shared, Designing, Graphics, Folder, Document, Components, Annotate, Astronaut, Spacesuit, Decorated, Robot, Program, Evaluate, Process, Tablet, Spreadsheet, Data, Input, Cells</i></p> <p>CC Links: Science Phase 1 - Materials Science Phase 2 – Planets Science Phase 4 – Electricity</p> <p>History Phase 1 – Life for my Grandparents</p>	<p><u>Creating Media: Stop Motion</u></p> <p><i>Learn how to create simple animations, storyboarding creative ideas and then decomposing a story into small parts of action to be captured using the readily available stop motion animation software</i></p> <p>Lesson 1: What is animation? Lesson 2: What is stop motion? Lesson 3: My first animation Lesson 4: Planning my Project Lesson 5: Creating my project</p> <p>Vocabulary: <i>Animation, Still Images, Moving Images, Flip book, Frame, Drawing, Frame, Onion Skinning, Digital, Animator, Background, Object, Plan,</i></p> <p>CC Links: Science Phase 4 - Electricity</p>
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<p>Phase 3</p> <p>Key Vocab to be taught across topics</p> <p><i>Sequence, Documents, Caps Lock, Backspace, Delete, Content, Save, Retrieve,</i></p>	<p><u>Creating Media: Video Trailers</u></p> <p><i>Developing digital video skills through the creation of book trailers. Creating a storyboard and identifying key events within the book, pupils then frame and film their shots before learning how to edit their films, adding effects such as transitions, music, voice and text.</i></p> <p>Lesson 1: Planning a Book Trailer Lesson 2: Filming Lesson 3: Editing the Trailer Lesson 4: Transitions and Text Lesson 5: Video Reviews</p> <p>Vocabulary: <i>Plan, Trailer, Video, Film, Photos, Scene, Storyboard, Text, Voiceover, Music, Technology, Sound Effects, Edit, Import, Device, Time Code, Desktop, Laptop, Tablet, Graphics, App, Transition, Wipe, Zoom, Crossfade, Cross Blur, Evaluate,</i></p> <p>CC Links: Science Phase 4 - Electricity</p>	<p><u>Creating Media: Website Design</u></p> <p><i>In this topic children develop their research, word processing, and collaborative working skills whilst learning how web pages and web sites are created, exploring how to change layouts, embed images and videos and link between pages.</i></p> <p>Lesson 1: Google Site Skills Lesson 2: Book Review: Web Page Lesson 3: Creating a Web Page Lesson 4: Planning my Website Lesson 5: Creating my Website</p> <p>Vocabulary: <i>Site, Content, Features, Record, Information, Audience, Published, Hobby, Theme, Checklist, Review, Web Site, Content, Collaboration, Contribution, Design, Style, Images, Hyperlinks, Tab, Insert, Embed, Plan, Create, Design,</i></p> <p>CC Links: Science Phase 4 - Electricity</p>	<p><u>Data Handling: Investigating Weather</u></p> <p><i>Researching and storing data using spreadsheets; designing a weather station which gathers and records data; learning how weather forecasts are made and using green screen technology to present a weather forecast</i></p> <p>Lesson 1: What's the Weather? Lesson 2: Weather Stations Lesson 3: Extreme Weather Lesson 4: Satellites and Forecasts Lesson 5: Presenting Information</p> <p>Vocabulary: <i>Weather, Degrees, Measurement, Accurate, Evaporation, Condensation, Forecast, Cylinder, Pinwheel, Thermometer, Satellite, Sensor, Sensitive, Climate, Accurate, Tornado, Lightning</i></p> <p>CC Links: Science Phase 1 – Seasonal Changes Science Phase 4 – Electricity</p> <p>Geography Phase 2 – Angry Earth Geography Phase 4 – Humans Damaging the Earth</p>
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<p>Phase 4</p> <p>Key Vocab to be taught across topics</p> <p><i>Network, Devices, Multimedia, Presentation, Programming, Sequence, Keyword, Spell Check, Reliability,</i></p>	<p><u>Programming Music: Scratch</u></p> <p><i>Engaging, purposeful and fun, this topic has everything you need to captivate your pupils and get them addicted to coding. Through Scratch, children can combine their knowledge of music and related terminology, with their formidable programming skills to create different sounds, beats and melodies which are put to the test with a live Battle of the Bands performance!</i></p> <p>Lesson 1: Tinkering with Scratch Lesson 2: Scratch Soundtracks Lesson 3: Planning a Soundtrack Lesson 4: Programming a Soundtrack Lesson 5: Battle of the Bands</p> <p>Vocabulary: <i>Scratch, Tinker, Predict, Programming, Music, Typing, Spacing, Performance, Coding, Tutorial, Error, Command, Instructions, Debugging, Commands, Loop, Pitch, Rhythm, Tempo, Timbre, Decompose, Bugs, Repeat, Melody, Beat,</i></p> <p>CC Links: Science Phase 3 – Sound Science Phase 4 - Electricity</p>	<p><u>Data Handling: Mars Rover</u></p> <p><i>In this topic children will learn about the automated motor vehicle, Mars Rover, exploring how and why the Mars Rover transfers data, understanding how messages can be sent using binary code and experiencing how to; programme a Mars Rover, calculate binary addition and represent binary as text</i></p> <p>Lesson 1: The Mars Rover Lesson 2: Binary Code Lesson 3: Computer Architecture Lesson 4: Using Binary - Numbers Lesson 5: Using Binary - Text</p> <p>Vocabulary: <i>Data, Space, Data Transmission, Discovery, Planet, Design, Construction, Technology, Transmit, Internet, Research, Signal, Scientist, Binary, Numerical Data, Sequence, Radio Signal, Input, Output, RAM, Byte, Simulation, CPU, Decimal, Hexadecimal, Boolean, ASCII,</i></p> <p>CC Links: Science Phase 2 – Planets Science Phase 4 – Electricity</p> <p>Music Phase 2 – Space</p>	<p><u>Computer Systems: Google Search Engines</u></p> <p><i>To learn independently, children need to be able to find relevant and accurate information quickly. This topic teaches pupils how to use key words and phrases, to identify inaccurate information, how 'PageRank' works as well as how to credit their sources appropriately</i></p> <p>Lesson 1: Searching Basics Lesson 2: Inaccurate Information Lesson 3: Web Quest Lesson 4: Information Poster Lesson 5: Web Crawlers</p> <p>Vocabulary: <i>Website, Search, Data Leak, Privacy, Network, Real, Fake, Deceive, Correct, Incorrect, Keywords, TASK, Copyright, Fair, Credit, Appropriate, Inappropriate, Web Crawler, Rank, Algorithm, Index</i></p> <p>CC Links:</p>
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<p>Phase 5</p> <p>Key Vocab to be taught across topics</p> <p>Explore, Variables, Audience, Copyright, Devices, Strategy, Information, Collaboration, Hyperlink</p>	<p><u>Code Breaking: Bletchley Park</u></p> <p><i>Bletchley Park is considered the home of modern computing. In this unit, children can discover the history of Bletchley and learn about code breaking and password hacking. They will have the opportunity to demonstrate some of their digital literacy skills by creating presentations about historical figures.</i></p> <p>Lesson 1: Secret Codes Lesson 2: Brute Force Hacking Lesson 3: Bletchley Park Lesson 4: Computer Heroes (1) Lesson 5: Computer Heroes (2)</p> <p>Vocabulary: Secret, Cipher, Pig Latin, Code, Scrambled, Date Shift Cipher, Pigpen Cipher, Acrostic Code, Nth Letter Cipher, Password, Secure, Chip and Pin, Combination, Discovery, Invention, Contribute, Hero, Convince, Present</p> <p>CC Links: Science Phase 4 – Electricity</p> <p>History Phase 1 – Life for my Grandparents History Phase 5 – World War II</p> <p><u>BV Links</u> Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p><u>Creating Media: History of Computers</u></p> <p><i>In the second part of our Bletchley Park topic, children write, record and edit radio plays set during WWII, look back in time at how computers have evolved from being larger than a room to fitting into the palm of your hand, and design a computer of the future</i></p> <p>Lesson 1: Playing with Sound Lesson 2: Radio Plays Lesson 3: First Computers Lesson 4: Computers That Changed the World Lesson 5: Future Computer</p> <p>Vocabulary: Radio Play, Sound Effect, Track, Fire, Reverb, Overlay, Sound, Record, FX, Script, Trailer, Background Noise, Bytes, Kilobyte, Megabyte, Terabyte, Gigabyte, RAM, ROM, Hard Drive, Processor, Touch Screen, Operating System</p> <p>CC Links: Science Phase 4 – Electricity</p> <p>History Phase 1 – Life for my Grandparents History Phase 5 – World War II</p> <p><u>BV Links</u> Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p><u>Skills Showcase: Inventing a Product</u></p> <p><i>A cross curricular DT and Computing topic, offers pupils the opportunity to consolidate their learning across multiple areas of Computing. Designing a product, pupils: evaluate, adapt and debug code to make it suitable and efficient for their needs; use a software program to design their products and then create their own websites and video adverts to promote their inventions</i></p> <p>Lesson 1: Invention Design Lesson 2: Coding and Debugging Lesson 3: Computer Aided Design Lesson 4: My Product's Website Lesson 5: Video Advert Lesson 6: Persuasive Adverts</p> <p>Vocabulary: Electronic, Product, Code, Evaluate, Design, Adapt, Debugging, Selection, Sequence, Repetition, Variables, Loops, Bugs, Algorithm, Outputs, Screenshot, Image Rights, Edit, Photos, Advertisement, Snippets, Influence, Manipulation, Opinions, Facts,</p> <p>CC Links: Science Phase 4 – Electricity</p>
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Online Safety Curriculum

Phase 1	Phase 2	Phase 3	Phase 4	Phase 5
<p style="text-align: center;"><u>Online Safety</u></p> <p>Lesson 1: Using the Internet Safely Lesson 2: Online Emotions Lesson 3: Be Kind and Considerate Lesson 4: Posting and Sharing Online</p> <p>Vocabulary: <i>Respect, Online, Communicate, Kind, Unkind, Internet, Online, Safety, Connection, Predict, Instructions, Digital Footprint</i></p> <p>CC Links:</p> <p>PSHE (All Phases)</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p style="text-align: center;"><u>Online Safety</u></p> <p>Lesson 1: What happens when I post online? Lesson 2: How do I keep things safe online? Lesson 3: Who should I ask? Lesson 4: It's My Choice Lesson 5: Is It True?</p> <p>Vocabulary: <i>Offline, Online, Information, Private, Safe, Trusted Adult, Share, Content, Permission, Refusal, Deny, Accepting, Private Information, Content, Reliable, Edit, Images, Pop Up</i></p> <p>CC Links: PSHE (All Phases)</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p style="text-align: center;"><u>Online Safety</u></p> <p>Lesson 1: Beliefs, Opinions and Facts Lesson 2: Being Upset Online Lesson 3: Sharing information Lesson 4: Rules of Social Media</p> <p>Vocabulary: <i>Fact, Opinion, Belief, Internet, Search, Accuracy, Reliable, Block, Report, Device, Content, Privacy, Smart Devices, Digital, Autocomplete,</i></p> <p>CC Links: PSHE (All Phases)</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p style="text-align: center;"><u>Online Safety</u></p> <p>Lesson 1: What happens when I search online? Lesson 2: How am I encouraged to buy online? Lesson 3: Fact, Opinion or Belief? Lesson 4: What is a Bot? Lesson 5: What is my TechTimeable like? Lesson 6: Being Safe and Respectable Online</p> <p>Vocabulary: <i>Search Results, Trustworthy, Reliable, Advertisements, Snippets, Sponsored, Accuracy, Ad, Influencer, In-App Purchases, Fact, Opinion, Belief, Reliability, Bot, Chatbot, Implication, Advantage, Distractions, Screen Time, Hashtag,</i></p> <p>CC Links: PSHE (All Phases)</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>	<p style="text-align: center;"><u>Internet Safety</u></p> <p>Lesson 1: Online Protection Lesson 2: Online Communication Lesson 3: Online Reputation Lesson 4: Online Bullying Lesson 5: Online Health</p> <p>Vocabulary: <i>Passwords (Strong), Private, Personal, Apps, Applications, Permissions, Technology, Communication, Emoji, Memes, Positive Contribution, Judgement, Summarise, Opinion, Mini Biography, Bullying, Real World, Trusted Adult, Health, Wellbeing, Support, Mental Health, Mindfulness</i></p> <p>CC Links: PSHE (All Phases)</p> <p><u>BV Links</u> Controversial issues and safe space for debate Respect and tolerance of multi-faith society Individual liberty The rule of law Democracy</p>