

| Year 1 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Technology Around Us | Moving a Robot (Bee Bots) | Digital Painting | Programming Animations | Pictograms (PicCollage) | Digital Writing |
| Substantive Threads | Technology in our lives | Programming | Multimedia | Programming | Data | Multimedia |
| | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety |
| Technology | iPads - Camera App - SeeSaw | BeeBots | iPads – PicCollage - SeeSaw | iPads - ScratchJR | iPads – PicCollage - SeeSaw | Laptops – Teams – Microsoft Word- BBC Dance Mat Typing |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation Nurture – (Dignity) caring and growing ourselves, others and God's creation Environment – (Community) developing an awareness of our local, national and international community | Nurture (Dignity). This unit encourages pupils to care for themselves and others by learning how to use technology safely and responsibly. It supports their growth in digital literacy while fostering respect for the devices, their work, and the online community. | Inspiring (Hope, Wisdom). By exploring programming with BeeBots, pupils develop resilience and motivation as they learn through trial and error. They gain confidence in problem-solving and logical thinking, fostering an aspirational mindset towards learning and technology. | Hope (Hope). This unit provides aspirational opportunities by encouraging pupils to explore creativity through digital painting. It helps them develop confidence in using technology for artistic expression while reflecting on different mediums and their potential. | Inspiring (Hope, Wisdom). By engaging with ScratchJr, pupils develop resilience and motivation as they experiment with coding, problem-solve, and refine their projects. This fosters creativity, perseverance, and confidence in using technology to bring their ideas to life. | Environment (Community). By learning to collect, organize, and interpret data through pictograms, pupils develop an awareness of how information is shared and understood within their local and wider communities. This fosters skills in communication, collaboration, and digital responsibility. | Hope (Hope). By developing fundamental computing and typing skills, pupils gain confidence and independence in using technology. These skills provide aspirational opportunities, preparing them for future learning and digital literacy in an increasingly technological world. |
| Vocabulary | Device iPad Camera App Gallery Upload SeeSaw | BeeBot Forward Backward Left Right Sequence Instructions | Digital painting Pencil/Brush Eraser Colour palette Fill tool Screenshot Upload | Algorithm Blocks Command Design Effect Join Project | Pictogram Symbols Data Questions Collect PicCollage Create | Computer Monitor Keyboard Mouse/ trackpad Username Password Shut down |

| | Projector SMART Rules Unlock | Algorithm Visual representation Debug | SeeSaw Stylus Undo | Sprite Value Sequence | Screenshot Upload SeeSaw | Typing Microsoft Word Microsoft Teams |
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| LCs (Components) Assessment checkpoints in green | <p>Can I name and locate technology around the classroom?</p> <p>Identify and name the different types of technology devices in the classroom (e.g., iPads, laptops, projectors, interactive whiteboards).</p> <p>Can I explore the basic features of an iPad safely?</p> <p>Explain the purpose of each technology device in the classroom.</p> <p>Unlock an iPad and open basic apps (e.g., camera, gallery, drawing apps).</p> <p>Can I save a photo to SeeSaw?</p> <p>Save and upload a photo to SeeSaw.</p> <p>Can I explain how to use a computer responsibly?</p> <p>Explain the SMART rules.</p> | <p>Can I make a BeeBot move by giving it simple instructions?</p> <p>Press buttons on the BeeBot to move it forward, backward, left, or right.</p> <p>Give the BeeBot a sequence of simple instructions (e.g., "Move forward 3 steps," "Turn left") and observe the BeeBot's movement.</p> <p>Can I record a simple algorithm that a Bee Bot follows?</p> <p>Record their algorithm using a visual representation (e.g., drawing arrows, writing down instructions).</p> <p>Can I program a BeeBot to navigate a simple maze?</p> <p>Debug a BeeBot's algorithm if it goes off course, ensuring it reaches the target or end point of the maze.</p> | <p>Can I use the basic tools on a digital painting app?</p> <p>Identify and use basic tools in a digital painting app, such as the pencil/brush, eraser, colour palette, and fill tool.</p> <p>Can I save my artwork? (screenshot then upload to SeeSaw)</p> <p>Take a screenshot on the iPad and upload this onto SeeSaw.</p> <p>Can I compare painting on paper with painting on an iPad?</p> <p>Identify differences between painting on paper and painting on an iPad (e.g., "On paper, I use a paintbrush; on the iPad, I use a finger or stylus").</p> <p>Describe how digital tools can create effects that are not possible on paper, such as undoing mistakes or using different brush sizes easily.</p> | <p>Can I choose a command for a given purpose?</p> <p>I can select and use an appropriate command block to make a sprite perform a specific action.</p> <p>Can I use more than one command block by joining them together?</p> <p>I can combine two or more blocks to create a simple sequence that controls a sprite's movement or actions.</p> <p>Can I identify the effect of changing a value?</p> <p>I can change a numerical value in a command block and describe how it affects a sprite's behaviour.</p> <p>Can I add blocks to each of my sprites?</p> <p>I can add and apply different sets of blocks to multiple sprites to make them perform unique actions.</p> <p>Can I design a project on ScratchJR?</p> <p>I can plan my project by selecting sprites, backgrounds, and command sequences before programming.</p> <p>Can I use an algorithm to follow my design?</p> <p>I can create and follow a step-by-step sequence (algorithm) to complete</p> | <p>Can I explain what a pictogram is?</p> <p>Can I collect data by asking questions?</p> <p>Ask simple questions to collect data from their classmates (e.g., "What's your favorite fruit?").</p> <p>Can I use PicCollage to create a pictogram that shows my data?</p> <p>Open PicCollage and use it to create a pictogram.</p> <p>Can I save my pictogram? (screenshot then upload to SeeSaw)</p> <p>Take a screenshot of their completed pictogram on PicCollage and upload this to SeeSaw.</p> <p>Can I answer questions about what a pictogram shows?</p> <p>Describe what a pictogram is and explain that it uses pictures or symbols to represent data.</p> | <p>Can I name the main parts of a computer?</p> <p>Identify and name the main parts of a computer, including the monitor, keyboard, mouse.</p> <p>Can I log onto a computer and shut it down?</p> <p>Log into the computer by entering their username and password.</p> <p>Safely shut down a laptop.</p> <p>Can I develop my typing skills? (BBC Dance Mat Typing)</p> <p>Practice typing skills, following the lessons to improve accuracy and speed.</p> <p>Can I type my writing?</p> <p>Type simple sentences or short paragraphs onto Word using a keyboard.</p> <p>Can I use punctuation in my typed writing?</p> <p>Use basic punctuation marks</p> <p>Can I change the size, font and colour of my writing?</p> |

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| | | | | my ScratchJr project as planned. | | Change the size, font and colour of text. |
| Assessment | | End of term Can children recall the basic features of an iPad and navigate their way to complete a challenge on Numbot or take a photo of a recent piece of learning. | End of term Invite reception chn up to Year . Can Year 1 chn demonstrate to the reception chn how to program and Beebot to complete a simple maze. Can they debug the Beebot if their on their receptions buddy's goes wrong. | End of term Children use basic tool on a digital painting app to paint a given object. Can this link to science? Seasonal observation/ plant etc | End of term When given access to Scratch junior can the create a project based on our current English text? Main characters etc or trip to the zoo? Inspiration can be of teachers choosing. | End of term Can children create a pictogram based on transition into Year 2. Such as asking the current Year 2s what their favourite top, event, trip has been. |

| Year 2 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Digital Music | On the Move | IT Around Us | Simple Inputs | Digital Photography | Venn Diagrams |
| Substantive Threads | Multimedia | Programming | Technology in our lives | Programming | Multimedia | Data |
| | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety |
| Technology | iPads – Garage Band | Laptops – Discovery Coding | Laptops- Microsoft Teams- Word | Laptops – Discovery Coding | iPads – Camera App - SeeSaw | iPads- SeeSaw |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation Nurture – (Dignity) caring and growing ourselves, others and God's creation | Inspiring (Hope, Wisdom). By exploring digital music creation, pupils develop resilience and motivation as they experiment with sounds, instruments, and recording. This encourages creativity, problem-solving, and confidence in | Inspiring (Hope, Wisdom). By learning to code, pupils develop resilience and motivation , understanding that mistakes are part of the learning process. They gain confidence in problem-solving and logical thinking, inspiring them to explore technology creatively. | Environment (Community). By exploring how technology is used in daily life and how IT devices work together, pupils develop an awareness of their local, national, and international communities. Understanding the role of technology and how to use it safely fosters responsible digital citizenship. | Inspiring (Hope, Wisdom). By combining events in coding projects, pupils develop resilience and motivation, learning through experimentation and problem-solving. This encourages creativity, logical thinking, and confidence in using technology to bring their ideas to life. | Hope (Hope). By exploring digital photography and editing, pupils engage in aspirational opportunities, developing creativity and confidence in using technology to express themselves and share their work with others. | Environment (Community). By collecting, organizing, and interpreting data using Venn diagrams, pupils develop an awareness of how information is categorized and understood within their local and wider communities, |

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| Environment – (Community) developing an awareness of our local, national and international community | expressing themselves through technology. | | | | | fostering logical thinking and collaboration. |
| Vocabulary | Digital instruments Tempo Dynamics Layering Recording Voice Sound effects Piano Drum kit Garage Band | code, object, action, click, start event, click event, | Technology Devices Input Output Computer Tablet Printer E-Safety SMART rules Bar code scanner | code, object, action, click, start event, click event | Photograph Camera Filter Editing Composition Brightness Contrast Subject Adjustment Landscape Portrait | Data Venn diagram Collect Categories Overlap Plan Template Clear PicCollage Interpret |
| LCs (Components) Assessment checkpoints in green | <p>Can I experiment with different digital instruments and play in different styles (e.g., fast, slow, loud, soft)? Play music using different tempos (fast/slow) and dynamics (loud/soft).</p> <p>Can I add different instruments to my project, like the Drum Kit, Piano, or Guitar? Layer different instruments, such as drums, piano, and guitar, to create a more complex composition.</p> <p>Can I plan a piece of digital music?</p> | <p>Can I explain that when a computer does something, it is following instructions called 'code'? Write code to make a jellyfish move in more than one direction on the screen.</p> <p>Can I give instructions to make objects on the screen move when the program starts? Write code to make several objects move in different directions.</p> <p>Can I use code to make objects move when they are clicked on? Write code to make different objects move</p> | <p>Can I identify examples of technology that I use and explain why we use it? Identify a variety of technologies they use daily (e.g., computers, tablets, smartphones, printers) and explain their purpose clearly (e.g., "I use a tablet to play games, and I use a computer to learn and find information").</p> <p>Can I sort input and output devices? Correctly identify and sort a range of input (e.g., keyboard, mouse, microphone) and output devices (e.g., monitor, printer,</p> | <p>Can I combine start events and click events to make a simple game? (Two lessons with the same objective) Combine code to make a bubble move when my program starts and disappear when it is clicked on.</p> <p>Can I combine start events and click events in code to make a magic castle scene? Code to program three fish to move at the start and then disappear when they are clicked on.</p> <p>Can I combine start events and click events</p> | <p>Can I take a range of digital photographs? Take a variety of digital photographs with different subjects (e.g., people, objects, landscapes) and compositions (e.g., close-up, wide-angle, action shots).</p> <p>Can I use a filter to improve a photo? Use a filter to improve their photo creatively (e.g., adjusting brightness, contrast, or applying a specific effect like sepia or black and white). They can explain</p> | <p>Can I collect data for a Venn diagram? Collect data that could be put into a Venn diagram.</p> <p>Can I plan my Venn diagram? Plan a Venn diagram using a template.</p> <p>Can I create my Venn diagram? Create a clear Venn diagram on PicCollage.</p> <p>Can I answer questions about what Venn diagrams show?</p> |

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| | <p>Record a plan of their composition using symbols to represent their music.</p> <p>Can I record my voice and add it to my music or sound effects? Use the recording function to record their voice in the app.</p> <p>Can I compare the difference between using physical and digital instruments? Explain the differences between using physical instruments and digital.</p> | <p>in different directions when they are clicked on.</p> <p>Can I use code to write a computer program where objects in a space scene move when they are clicked on? Use code to write a computer program where several objects move in different directions when clicked on.</p> | <p>speaker), explaining the role of each.</p> <p>Can I demonstrate how IT devices work together? (Teach Computing lesson 4) Demonstrate how multiple IT devices (such as a computer, printer, and tablet) work together in a simple task.</p> <p>Can I demonstrate how IT devices work together? (printing a typed story)</p> <p>Can I create a set of rules for using a specific piece of IT safely? Create a thoughtful set of rules for safely using a specific piece of IT, such as a computer or tablet (e.g., "Don't share your password, and always ask for help when something doesn't seem right")</p> | <p>to program cars and emergency vehicles in an animated traffic scene? Combine start events and click events to create an animated scene and explain how my code works.</p> <p>Write code in which the same object responds to both click events and start events</p> | <p>why they chose that filter.</p> <p>Can I save my digital photo to share with my peers?</p> <p>Can I sort photographs that have been edited? Identify and sort photographs that have been edited and unedited based on their visual characteristics (e.g., changes in brightness, colour, or sharpness). They can describe what has been modified in each photo.</p> | <p>Answer simple questions about the information peer's Venn diagrams show.</p> |
| Assessment | Class composition using digital music | Explain what a code is and what it does | List how you can use IT equipment safely | Explain what happens when you combine start and click events | Explain what changes can be made when you edit a photo | Create a Venn diagram with different information |

| Year 3 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Different kinds of inputs | Connecting Computers | Buttons and Instructions | Digital Posters | Branching Databases | Animation |
| Substantive Threads | Programming E-Safety | Technology in our lives E-Safety | Programming E-Safety | Multimedia E-Safety | Data E-Safety | Multimedia E-Safety |
| Technology | Laptops- Discovery Coding | | Laptops- Discovery Coding | Laptops – Microsoft Teams – Microsoft Powerpoint | Laptops - https://www.j2e.com/jit5#branch | iPads – Animation app |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation Nurture – (Dignity) caring and growing ourselves, others and God's creation Environment – (Community) developing an awareness of our local, national and international community | Inspiring (Hope, Wisdom) . By experimenting with coding and interactive inputs, pupils develop resilience and motivation, learning to problem-solve, refine their work, and think logically. This fosters confidence and creativity in using technology to control and animate digital objects. | Environment (Community) . By exploring digital devices, networks, and their role in communication, pupils develop an awareness of how technology connects people and systems within their local, national, and global communities, fostering responsible and informed digital citizenship. | Inspiring (Hope, Wisdom) . By creating interactive programs and debugging code, pupils develop resilience and motivation, learning through trial and error. This fosters problem-solving skills, logical thinking, and confidence in using technology to bring their ideas to life. | Hope (Hope) . By designing and creating a digital poster, pupils engage in aspirational opportunities, developing creativity, digital literacy, and confidence in presenting information effectively using technology. | Environment (Community) . By learning to organize and categorize information through branching databases, pupils develop an awareness of how data is structured and used to make decisions, supporting logical thinking and effective communication within their communities | Inspiring (Hope, Wisdom) . By creating animations, pupils develop resilience and motivation , learning through experimentation and refinement. This fosters creativity, problem-solving skills, and confidence in using digital tools to bring their ideas to life. |
| Vocabulary | object, key press, control, action, algorithm, input, mouse, | Input Output Digital Device Network Connection Router Server | Branching Database Attribute Sort Identify Question Organise Structure | Publisher Text box Font Layout Image Resize Background | button, object, run, execute, algorithm, debug, key press event, | Animation Sequence Stop-frame Storyboard Onion Skinning Frame Movement |

| | pointer, object, device | Data Component Communication | Classify Plan Record | Orientation Copywrite Crop | input | Review Improve Media |
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| LCs (Components) Assessment checkpoints in green | <p>Can I write code that makes an object move around the screen when keys are pressed. Write code to make Red Riding Hood move in different directions and stop when different keys are pressed.</p> <p>Can I make objects perform different actions when keys are pressed on the keyboard? Program objects to move and hide when keys are pressed.</p> <p>Can I write code that makes an object change direction when different keys on the keyboard are pressed? Write code to make several planes move and change directions when different keys are pressed.</p> <p>Can I write code that makes an object change direction when the pointer is pressed and released? Write code to make several objects change direction when the pointer is pressed and released.</p> <p>Can I write code where different inputs can be used to make objects move and disappear?</p> | <p>Can I identify input and output devices? Name examples of input and output devices and explain the difference.</p> <p>Can I design my own digital device? Create a digital device with input and output and explain the device's purpose.</p> <p>Can I explain how digital devices help us? I can explain how digital devices make tasks easier or more efficient with examples.</p> <p>Can I explain that computers are connected to form networks? I can give examples of networks (e.g., school network, the internet).</p> <p>Can I demonstrate how information is passed between devices on a network? I can show or describe how a message or file moves across a network.</p> <p>Can I identify physical components of a computer network? I can name key components such as routers, switches, and servers.</p> | <p>Can I create a set of questions with a yes or no answer? I can write simple yes/no questions to help sort objects.</p> <p>Can I select an attribute to separate objects into groups? I can use attributes to sort objects into two distinct groups.</p> <p>Can I create a branching database? I can create a branching diagram that sorts objects correctly.</p> <p>Can I structure a branching database? My database follows a clear branching structure that makes it easy to identify objects.</p> <p>Can I plan a branching database? I can think of effective yes/no questions before creating my database.</p> <p>Can I create an animal identifier? I can design a branching database that correctly identifies different animals based on their attributes.</p> | <p>Can I plan my own digital poster? Create a paper-based plan before using Powerpoint.</p> <p>Can I locate and save my poster on Teams? Locate and save work in the assigned folder on Teams.</p> <p>Can I change font style, size and colour for a given purpose? Demonstrate an understanding of text formatting for readability and impact.</p> <p>Can I add and adjust copyright free images to a poster? Insert, resize, and position appropriate images. Explain the term 'copyright.'</p> <p>Can I use design features on Microsoft Publisher? Apply borders, shapes, backgrounds, and layout adjustments to improve their posters.</p> <p>Can I review, evaluate and present my poster? Peer assess poster and identify how it could be improved.</p> | <p>Can I write code where buttons can be used to make an object move around the screen? Write code so that different buttons can be used to make a helicopter move in different directions when they are clicked.</p> <p>Can write the code for a simple game where buttons are used to move an object around? Write code where different buttons control the way the bird moves.</p> <p>Can I write the code for a simple game where buttons are used to move an object around and cast a magic 'disappearing spell?' Write code where a set of buttons control the witch, and a different button hides the cat.</p> <p>Can I write code where buttons are used to move a monster around and eat (hide) fruit? Write code so that a set of buttons will</p> | <p>Can I explain that an animation is a sequence of drawings or photographs? I can describe how animations are made up of multiple frames.</p> <p>Can I create an effective stop-frame animation? I can make small changes between frames to create smooth movement.</p> <p>Can I create a storyboard for an animation? I can plan my animation by drawing key scenes.</p> <p>Can I use onion skinning to make small changes between frames? I can use onion skinning to create smoother movements in my animation.</p> <p>Can I review and improve my animation? I can suggest ways to improve an animation.</p> <p>Can I add other media to my</p> |

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| | Write code to make objects move and disappear in response to different inputs. | | | | make Migbod move, and different buttons will make multiple fruit objects disappear. Can I use coding knowledge to fix the mistakes in a variety of programs? Debug a variety of programs. | animation? I can add sound, text, or backgrounds to enhance my animation. |
| Assessment | Explain what a code is and what it does | To draw a diagram showing how information is shared within a network. | Write a set of instructions for how to create a branching database | To explain the process of editing fonts and photos in powerpoint | Create a top tip guide on how to use code for various outputs. | Create an animation set within our local area showing learnt skills from this unit |

| Year 4 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Sequence and Instructions (DC) | Audio Editing | Conditional Events (DC) | Photo Editing | Online Safety | Micro: Bits |
| Substantive Threads | Programming E-Safety | Multimedia E-Safety | Programming E-Safety | Multimedia E-Safety | E-Safety | Programming E-Safety |
| Technology | Laptops – Discovery Coding | Laptops - Audacity | Laptops – Discovery Coding | Laptops – Paint.net | | Laptops – Micro: Bits |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities | Inspiring (Hope, Wisdom). By developing coding sequences, pupils build resilience and motivation, learning to think logically, problem-solve, and refine their | Hope (Hope). By planning, creating, and editing a podcast, pupils engage in aspirational opportunities, developing communication skills, creativity, and | Inspiring (Hope, Wisdom). By using conditional events in programming, pupils develop resilience and motivation, learning through problem-solving and logical thinking. This fosters creativity and | Inspiring (Hope, Wisdom). By exploring digital image editing, pupils develop resilience and motivation, experimenting with creative tools to enhance and manipulate visuals. This fosters problem- | Nurture (Dignity). By learning about online safety, privacy, and responsible digital behaviour, pupils care for themselves and others in the digital world, developing | Inspiring (Hope, Wisdom). By programming the Micro: Bit to create animations and displays, pupils develop resilience and motivation, |

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| <p>Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation</p> <p>Nurture – (Dignity) caring and growing ourselves, others and God's creation</p> <p>Environment – (Community) developing an awareness of our local, national and international community</p> | work. This fosters confidence in using technology to create structured and purposeful digital projects. | confidence in using digital tools to express their ideas and share their voices with others. | confidence in coding interactive digital experiences. | solving, digital literacy, and confidence in using technology for self-expression. | awareness of their actions and fostering a respectful and safe online community. | using problem-solving and creativity to bring digital designs to life. This fosters confidence in coding and interactive technology. |
| Vocabulary | Code Sequence Command Action Timer event Sequence | Input, Output, Microphone, Audacity, Edit, Trim, Audio, Podcast, Waveform, Layer, | walls, condition, conditional statement, background, hit event condition, conditional statement, background, direction, conditional statement, condition, collide, | Crop Rotate Filter Brightness Retouch Layer Transform Composition Saturation Clone Blend Texture Combine | E-Safety Cyberbullying Personal Information Password Privacy Settings Digital Footprint Stranger Danger Fake News Phishing Report | Micro:bit Program LED Matrix Input Output Button Loop Animation Event Debugging Physical Coding |
| <p>LCs (Components) Assessment checkpoints in green</p> | <p>Can I write a computer program where different pieces of code execute in a particular sequence? I can write a sequence of instructions to create a program.</p> <p>Can I create a program that uses sequences for two different objects moving on the screen? I can write code to make a sequence of events happen in the right order</p> <p>Can I write code that uses a timer to create a sequence of events?</p> | <p>Can I record audio? I can use the software, Audacity, to record my voice and save this on Teams.</p> <p>Can I edit audio? I can edit pauses, interruptions and mistakes on a piece of audio.</p> <p>Can I plan a podcast? I can plan a simple podcast.</p> <p>Can I create a podcast? I can use a plan to create a podcast with a jingle.</p> <p>Can I edit a podcast?</p> | <p>Can I use 'hit events' to program a space maze game in which an object reacts to particular conditions? I can write code that includes a conditional statement, using a hit event, to program an object to stop when it hits a wall in a maze.</p> <p>Can I use conditional hit events to control the movement of a car on the screen? I can use a conditional hit event to make a car change direction if it touches a certain colour.</p> | <p>Can I use the basic tools and functions in Paint.net? Open, save and resize an image in Paint.net.</p> <p>Can I adjust brightness, contrast, and colour levels of a photo? Adjust the brightness, contrast and colour levels of a photo.</p> <p>Can I remove or hide something I don't want in an image through cloning? Remove or hide by using the eraser or cloning tool.</p> | <p>Can I explain what personal information is and how to keep it private? Explain the difference between personal and public information and how to protect it.</p> <p>Can I recognise cyberbullying and how to respond to it? Identify cyberbullying and explain appropriate actions to take.</p> <p>Can I spot fake news and check if online information is reliable?</p> | <p>Can I program a Micro: Bit to display a beating heart?</p> <p>I can use a loop to alternate between images for an animation effect.</p> <p>Can I program a Micro: Bit to display an emotion? I can test my program to ensure it works as intended.</p> <p>Can I program my Micro: Bit into an animated name tag?</p> |

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| | <p>I can use a timer event to control when things happen in my program.</p> <p>Can I write code that uses a timer to create a sequence of traffic lights turning on and off? I can plan and write code for a sequence of events and use this to solve a problem.</p> | <p>I can edit and save my podcast.</p> <p>Can I evaluate a podcast? I</p> | <p>Can I make a simple game that uses conditional hit events to check if one object has hit another? can use several conditional hit events in my code to make different things happen on the screen.</p> <p>Can I program a simple game where conditional events are used to check whether objects have collided? I can use several conditional hit events in my code to make different things happen.</p> <p>Can I use my understanding of coding to debug a variety of programs?</p> <p>I can use debugging skills to remove errors from a piece of code.</p> | <p>Can I evaluate my image?</p> <p>I can evaluate my podcast.</p> | <p>Use fact-checking strategies to assess information reliability</p> <p>Can I stay safe when playing online games or using social media? Explain the dangers of online gaming and social media and how to respond.</p> <p>Can I understand what a digital footprint is and why it is important?</p> <p>Explain how online actions affect their digital footprint.</p> | <p>I can use inputs (like button presses) to trigger or change the animation.</p> |
| Assessment | Create a computer program that shows a clear sequence of events happening in the correct order, uses a timer, and includes more than one object. | Create a short podcast (1–2 minutes) that includes recorded voice, editing, and a jingle, using a simple plan. | Create a simple on-screen game (e.g. space maze, car game, chase game) that uses conditional hit events to make different things happen when objects touch colours or other objects. Debug the program so it works correctly. | Edit a photograph using Paint.NET to improve its appearance and remove something you do not want. Save the edited image and evaluate your work. | Create a short Online Safety Guide (poster, slideshow, document, or short video/voice recording) that explains how to stay safe online and make responsible choices. | Create a Micro:bit program that shows an animation, displays an emotion or name, and responds to an input. Test and improve the program so it works as intended. |

| Year 5 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Introduction to variables | The Internet | Vector Drawing | Repetition and loops | Video Production | Flat-File Databases |
| Substantive Threads | Programming | Technology in our lives | Multimedia | Programming | Multimedia | Data |
| | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety |
| Technology | Laptops – Discovery Coding | Laptops – Microsoft Teams | Laptops - PowerPoint | Laptops – Discovery Coding | iPads- iMovie | Laptops- https://www.j2e.com/database/ |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation Nurture – (Dignity) caring and growing ourselves, others and God's creation Environment – (Community) developing an awareness of our local, national and international community | Inspiring (Hope, Wisdom). By learning to use variables in programming, pupils develop resilience and motivation, applying logical thinking to create dynamic and interactive games. This fosters problem-solving skills and confidence in coding. | Environment (Community). By exploring networks, the internet, and the World Wide Web, pupils develop an awareness of their local, national, and international community , understanding how digital connections shape communication, information sharing, and reliability in the online world. | Inspiring (Hope, Wisdom). By using PowerPoint's design tools to create digital drawings and logos, pupils develop resilience and motivation, refining their creativity and problem-solving skills while learning precise digital design techniques. | Inspiring (Hope, Wisdom). By learning to use loops and conditional statements in programming, pupils develop resilience and motivation, applying logical thinking to create complex, repeating patterns and animations. This fosters problem-solving skills and confidence in coding. | Hope (Providing aspirational opportunities). By exploring video creation, pupils develop creativity and technical skills, gaining confidence in storytelling and digital media production. This encourages them to aspire to higher-quality work and explore new opportunities in multimedia expression. | Inspiring (Wisdom, Hope). By exploring databases, pupils develop analytical thinking, organization, and problem-solving skills, helping them understand how data is structured, searched, and interpreted in real-world contexts. |
| Vocabulary | variable, value, conditional event, execute, hit event, negative, collide | Network Node Router Switch Server Internet World Wide Web (WWW) Website Web Page Browser | Vector Drawing Object Line Tool Rotate Duplicate Layer Grouping Ungrouping Alignment Grid | repetition, loop, action, efficient, nesting, If statement, variable, | Compare Content Create Device Evaluate Features Filming iMovie Record Storyboard Video | Database Record Field Flat file Sort Filter Search Query Chart Comparison |

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| | | Hyperlink Content Reliable Unreliable Fact-checking Cybersecurity Phishing Firewall | | | | |
| LCs (Components) Assessment checkpoints in green | <p>Can I explain how a variable can be used to keep track of the score in a game? Program the variable to increase in value by different amounts when different balloons are popped.</p> <p>Can I use variables to keep track of the score in a game that uses conditional events? Write code including a variable that increases by different amounts depending on which condition is met.</p> <p>Can I use a variable to keep track of the score in a game that uses conditional events? Write code where the value of a variable changes by positive and negative amounts when</p> | <p>Can I describe how networks physically connect to other networks? Identify and explain the role of devices like routers, switches, and cables in connecting networks.</p> <p>Can I recognise how networked devices make up the internet? List examples of networked devices (e.g., computers, smartphones, IoT devices) and explain their roles.</p> <p>Can I outline how websites can be shared via the World Wide Web (WWW)? Describe how web browsers are used to access websites.</p> <p>Reflect on how to verify online content</p> | <p>Can I use PowerPoint's shape and line tools to create a simple digital drawing? Use PowerPoint's shape and line tools to create a simple digital drawing.</p> <p>Can I combine, resize, rotate, and duplicate shapes to create a digital image in PowerPoint? Combine, resize, rotate, and duplicate shapes to create a digital image in PowerPoint.</p> <p>Can I use zoom, alignment grids, and shape modifications to create a precise and detailed drawing in PowerPoint? Use zoom, alignment grids, and shape modifications to create a precise and detailed drawing in PowerPoint.</p> | <p>Can I use a loop to do something repeatedly in a program? I can choose when to use repetition in my code to make my code more efficient.</p> <p>Can I write code that uses nested loops to create a car-driving program? I can write code that includes more complex repetition.</p> <p>Can I write the code to program a rocket to orbit round the spinning Moon, using the concepts of loops, regular or infinite repetition, and 'if statement' blocks? I can write code to make a rocket orbit the Moon, then change direction.</p> <p>Can I use loops, a variable and if statements to create</p> | <p>Can I compare features in different videos? I can compare and explain how different features, such as camera angles, lighting, and editing, affect storytelling and audience engagement.</p> <p>Can I use a digital device to record video? I can record a clear and stable video using appropriate framing, angles, and sound quality.</p> <p>Can I use a storyboard to explore a variety of filming techniques? I can create a detailed storyboard that includes different shot types and camera</p> | <p>Can I create a paper-based database? I can organise information into records and fields using a table format.</p> <p>Can I navigate a flat-file database? I can find and view records in a simple database.</p> <p>Can I group information using a database? I can sort or categorise data based on specific criteria.</p> <p>Can I use search tools in a database? I can filter and retrieve specific records using search functions.</p> |

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| | <p>different conditions are met.</p> <p>Can I use multiple different variables and to set the value of a variable? Write code including several variables and set the value of a variable to a specific amount.</p> <p>Can I use a variable to keep track of the score in a game where the score increases, decreases or resets when different conditions are met?</p> | <p>and share only credible information. Can I describe how content can be added and accessed on the World Wide Web (WWW)? Demonstrate how users access content via browsers and search engines.</p> <p>Can I recognise how the content of the WWW is created by people? Identify different types of online content created by individuals or groups (e.g., blogs, videos, forums).</p> <p>Can I evaluate the consequences of unreliable content? Reflect on how to verify online content and share only credible information.</p> | <p>Can I arrange and layer objects in PowerPoint to create depth in an image? Arrange and layer objects in PowerPoint to create depth in an image.</p> <p>Can I duplicate, group, and modify objects in PowerPoint to create new designs efficiently? Duplicate, group, and modify objects in PowerPoint to create new designs efficiently.</p> <p>Can I use PowerPoint's vector tools to design a logo for a specific purpose?</p> | <p>an animated scene of hot air balloons performing a repeating pattern in the sky? I can use loops, a variable and if statements to create an animated scene where two balloons move and form a repeating pattern.</p> | <p>movements to guide my filming. Can I create and save video content? I can edit and save my video in the correct format, adding transitions or effects to enhance the final product.</p> <p>Can I evaluate my video and suggest improvement? I can assess the strengths and weaknesses of my video and suggest meaningful improvements to enhance its quality and effectiveness.</p> | <p>Can I compare data visually? I can present and interpret data using charts, graphs, or tables</p> <p>Can I use a real-world database to answer questions? I can extract relevant information to solve problems or support conclusions.</p> |
| Assessment | <p>Create an app with code including a variable that will increase, decrease or reset to zero when different conditions are met.</p> | <p>Selection of online content – suggest ways to verify content/credibility</p> | <p>Use PowerPoint's vector tools to design a logo for a specific purpose – Plastic Free Falmouth or a similar conservation project</p> | <p>Create an app with code that uses loops, a variable and if statements to create an animated scene where two balloons move and form a repeating pattern.</p> | <p>Create a storyboard for a Y5 advert to show to future Y5s on transition day.</p> | <p>Suggest fields for a database about the Falmouth Packet Ships</p> |

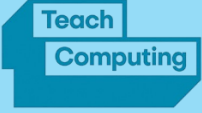







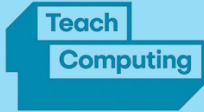



| Year 6 | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| | Systems and Searching | Speed, directions and coordinates | 3D Modelling | Random numbers and simulations | Micro:bit Python coding | Spreadsheets |
| Substantive Threads | Technology in our lives | Programming | Multimedia | Programming | Programming | Data |
| | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety | E-Safety |
| Technology | Laptops- Internet browser- Search Engines (e.g. Google) | Laptops – Discovery Coding | Laptops - TinkerCAD | Laptops – Discovery Coding | Laptops – Micro:bits | Laptops – Microsoft Excel |
| Spirituality – (Community, Dignity) encouraging our pupils to reflect upon their learning and its impact on themselves and others – Look in, look out, look up. Hope – (Hope) providing aspirational opportunities Inspiring – (Hope, Wisdom) developing pupils' resilience and motivation Nurture – (Dignity) caring and growing ourselves, others and God's creation Environment – (Community) developing an awareness of our local, national and international community | Wisdom (Inspiring, Hope). By learning how digital systems work and how to evaluate online information, pupils develop critical thinking, digital literacy, and responsible decision-making, equipping them to navigate the digital world wisely. | Hope (Inspiring, Wisdom). By developing coding skills to control movement, simulate real-world mechanics, and debug programs, pupils build problem-solving abilities, resilience, and creativity, empowering them to innovate and aspire to greater achievements in computing. | Inspiring (Hope, Wisdom). By designing and creating 3D models, pupils develop creativity, problem-solving skills, and perseverance, fostering a sense of achievement and aspiration in digital design and engineering. | Inspiring (Hope, Wisdom). By experimenting with randomness in coding, pupils develop problem-solving skills, creativity, and resilience, encouraging them to explore new possibilities and refine their programming abilities. | Hope (providing aspirational opportunities). By programming a Micro:bit for real-world applications, pupils develop problem-solving skills and gain insight into how technology can be used creatively and practically, inspiring them to explore further innovation. | Inspiring (developing pupils' resilience and motivation). By learning how to collect, organize, and analyze data using spreadsheets, pupils develop problem-solving skills and gain confidence in handling real-world tasks, fostering independence and motivation to apply their learning in meaningful ways. |
| Vocabulary | Computer Systems Data Digital Systems Internet Network Ranking Search Engine | object, action, speed, property, value, accelerate, decelerate, | 3D Shape Modify Object Design Dimensions Modelling Sketch | variable, generate, random, simulate, x-axis, random number, angle, | Micro:bit Sensor Program Temperature Sound Logger Alarm | Data Spreadsheet Formula Range Cell Format Event Planning |

| | Trustworthiness Websites | debug, angle, value, iteratively, simulation, y-axis, x-axis, conditional event, if statement | Software | coordinates, variable, degrees, condition, position | Motion Interactive Input | Presentation Chart Analysis |
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| LCs (Components) Assessment checkpoints in green | <p>Can I explore how digital systems work? Describe how digital systems process, store, and transmit information.</p> <p>Can I recognise the role computer systems have in our lives? Explain how computer systems are used in different aspects of daily life, including communication, work, and entertainment.</p> <p>Can I use a search engine and recognise trustworthy websites? Use a search engine effectively and evaluate the reliability of websites based on their source, content, and purpose.</p> | <p>Can I set values in code to control the speed of an object? I can write code where buttons increase or decrease the speed of a car or stop the car when clicked.</p> <p>Can I use object properties (speed, heading and angle) to create a driving simulation? I can use conditional hit events and values that represent angles in my code.</p> <p>Can I create a sailing game where a boat's position on the screen is controlled by making changes to its co-ordinates? I can write a conditional statement that includes changing the co-ordinates of the boat to push the boat</p> | <p>Can I add a 3D shape to a project? Insert and position 3D shapes (like cubes, spheres, or cylinders) into my design.</p> <p>Can I modify a 3D object? Change the size, shape, or features of a 3D object.</p> <p>Can I create my own name badge? Design and build a personalized 3D name badge using TinkerCAD.</p> <p>Can I make a desk tidy? Design and create a functional 3D model of a desk tidy for organisation.</p> <p>Can I plan a 3D model? Plan the features and dimensions of a 3D</p> | <p>Can I generate and display random numbers, and use these within the program for a car racing game? Write code that uses random numbers to move cars along the x-axis.</p> <p>Can I write code for a game that uses random numbers to move objects in different directions? Write code that uses random numbers to move a caterpillar to random locations.</p> <p>Can I write code that uses random numbers to move objects at random speeds and headings, and use this to create a game? Write code that uses random numbers to move cars in different directions at random</p> | <p><u>Can I program a Micro:bit so it becomes a thermometer?</u> Use the Micro:bit's sensors to measure temperature and display or record the readings.</p> <p><u>Can I program a Micro:bit to become a sound logger?</u> Use a microphone or sound sensor with the Micro:bit to detect and store sound data for analysis.</p> <p><u>Can I program a Micro:bit to become a door alarm?</u> Use the Micro:bit to trigger an alarm or alert when motion is detected or a door is opened.</p> | <p>Can I collect data? Gather and input information into a spreadsheet, ensuring it's organised for analysis.</p> <p>Can I format a spreadsheet? Change the appearance of a spreadsheet by adjusting fonts, colours, borders, and cell alignment for clarity and presentation.</p> <p>Can I construct a formula in a spreadsheet? Create simple formulas (like addition, subtraction, or averages) to calculate values automatically.</p> |

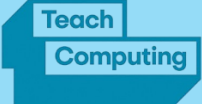

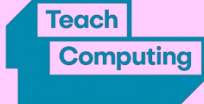

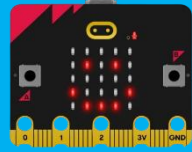
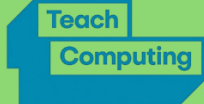
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| | <p>Can I explain how search results are ranked? Explain how search engines rank results based on factors like keywords, relevance, and paid advertisements.</p> | <p>backwards when it hits the waves.</p> <p>Can I write code including if statements to make an object rotate, and combine this with conditional events to make a game? I can include a conditional hit event in my code to make the parachuting cow return to the top of the screen when it hits a cloud.</p> <p>Can I set friction to affect the speed and movement of a car in a driving simulation? I can write code that uses a value to control the direction of a car and make it respond to friction.</p> <p>Can I use my coding knowledge to debug code in a variety of programs? Debug code in a variety of programs.</p> | <p>object before creating it.</p> <p>Can I make my own 3D model? Design and build a unique 3D object from scratch using 3D modelling tools.</p> | <p>speeds, and use hit events to add more randomisation to their headings.</p> <p>Can I create a ping-pong game, using random headings in specific ranges? Select the right range for my random numbers in order to control the general direction of the ball in a ping-pong game.</p> <p>Can I use random numbers in combination with variables and conditional hit events to create a realistic pinball game? Write code to make the ball bounce back in random directions when it hits the edges of the screen.</p> | <p><u>Can I program a Micro:bit to become an electronic pet?</u> Create an interactive Micro:bit program that mimics behaviors of a pet, such as responding to inputs or displaying emotions.</p> | <p>Can I apply a formula to a range of cells by duplicating it? Use the fill handle or copy-paste methods to apply a formula to multiple cells in a column or row.</p> <p>Can I create a spreadsheet to plan an event? Design a spreadsheet that organizes details like dates, tasks, resources, and responsibilities for event planning.</p> <p>Can I use a suitable way to present my data? Choose the best method (charts, graphs, tables) to present and interpret data clearly and effectively.</p> |
| Assessment | Talk a peer through the process of using a search engine – explaining how information is | Create or fix a simple game where buttons change speed, friction affects movement, objects rotate or | Create a simple 3D name badge or desk tidy in TinkerCAD by inserting at least one 3D shape, modifying its | Create a simple game where one or more objects use random numbers to move in different directions, at | Create one Micro:bit program of your choice (thermometer, sound logger, door alarm, or electronic | Create a simple event-planning spreadsheet where you collect and organise |

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| | processed, transmitted and how to tell is a website is trustworthy | respond to collisions using if statements, positions change using coordinates, and demonstrate your understanding by ensuring the program runs correctly and explaining one bug you fixed. | size or features, positioning it correctly, and showing that you planned the design before building it. | random speeds or positions, and include a hit or event that changes their movement using new random values. | pet) that uses at least one sensor input and produces an output | data, format it clearly, use at least one formula and copy it across cells, and present the information using an appropriate chart or table. |
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Substantive Threads

| | Programming | Data Handling | Technology in our Lives | E-Safety | Multimedia | |
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| | Autumn 1 | Autumn 2 | Spring 1 (Safer Internet Day February) | Spring 2 | Summer 1 | Summer 2 |
| Year 1 |  Technology around us |  Moving a robot |  Digital painting |  Programming animations |  Pictograms |  Digital Writing |
| Year 2 |  |  |  |  |  |  |

| | Digital Music | Discovery Coding- <i>On the move</i> | IT around us | Discovery Coding- <i>Simple inputs</i> | Digital Photography | Venn Diagrams |
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| Year 3 |  <p>Discovery Coding- <i>Different kinds of inputs</i></p> |  <p>Connecting computers</p> |  <p>Animation</p> |  <p>Desktop publishing</p> |  <p>Discovery Coding- <i>Buttons and instructions</i></p> |  <p>Branching databases</p> |
| Year 4 |  <p>Discovery Coding- <i>Sequence and instructions</i></p> |  <p>Audio editing</p> |  <p>Discovery Coding- <i>Conditional events</i></p> |  <p>Photo editing</p> |  <p>Online Safety</p> |  <p>Microsoft MakeCode</p> |
| Year 5 |  <p>Discovery Coding- <i>Introduction to variables</i></p> |  <p>The Internet</p>  <p>Polar Bear Tracker</p> |  <p>Vector drawing</p> |  <p>Discovery Coding- <i>Repetition and loops</i></p> |  <p>Video editing</p> |  <p>Flat-file databases</p> |

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| Year 6 |  <p>Sharing Information</p> |  <p>Discovery Coding- Speed, directions and coordinates</p> |  <p>3D modelling</p> |  <p>Discovery Coding- Random numbers and simulations</p> |  <p>Python</p> |  <p>Spreadsheets</p> |
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Disciplinary Threads

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| <p>Logical Thinking and Reasoning</p> <ul style="list-style-type: none"> Predicting and explaining what code or a process will do. Using cause and effect to understand digital outcomes. Applying logic to debug and fix problems. Explaining why something works or doesn't work. | <p>Problem Solving and Debugging</p> <ul style="list-style-type: none"> Breaking tasks into smaller steps (<i>decomposition</i>). Testing, evaluating, and improving digital work. Persevering through trial and error. Finding and correcting errors (bugs) in programs or processes. | <p>Design, Creation, and Evaluation</p> <ul style="list-style-type: none"> Planning and designing digital artefacts (programs, animations, podcasts, databases, videos, etc.). Applying creative decisions to suit a purpose and audience. Evaluating the effectiveness of a digital outcome. Iteratively refining digital projects. |
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| Responsible and Ethical Use <ul style="list-style-type: none">• Making safe, responsible, and respectful choices online.• Understanding digital footprints, privacy, and consent.• Evaluating reliability and bias in digital content.• Reflecting on how technology impacts self, others, and society | Information Handling and Analysis <ul style="list-style-type: none">• Collecting, organising, and analysing data to draw conclusions.• Selecting suitable tools to process or represent data.• Interpreting charts, graphs, and databases to make sense of information.• Questioning the reliability or completeness of data. | |
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