



Whole school Progression of Knowledge and Skill

Core areas linked to National Curriculum coverage

Computing

2023-2025

EYFS

Computer Science

Unit	Areas of Learning	Key Vocabulary
Early programming EYFS - Programming - iLearn2 Primary Computing. Made Easy.	<i>Knows how to operate simple equipment (30-50 months)</i> <i>Give explanations (Speaking 30-50 months)</i>	Sequence Algorithm Predict

Digital Literacy

Unit	Areas of Learning	Key Vocabulary
E-Safety EYFS - E-safety - iLearn2 Primary Computing. Made Easy.	<i>Explain the reasons for rules, know right from wrong and try to behave accordingly (Early Learning Goals)</i>	Safe Strangers Internet

Information Technology

Unit	Areas of Learning	Key Vocabulary
Computer discovery Computer Discovery - Early Years - iLearn2 Primary Computing. Made Easy.	<i>Understanding the World; Children recognise that a range of technology is used in places such as home and schools (Early Learning)</i> <i>Communication and Language; Listening and Attention, Understanding, Speaking.</i> <i>Health and Self Case: Understands that equipment needs to be used safely (30-50 months).</i> <i>Mathematics: Count on and back to find an answer. (Early Learning)</i> <i>Interact with age-appropriate computer software (40-60+ months)</i>	Mouse Trackpad Cursor Left button Scroll wheel Home row
Early digital music EYFS/Year 1 Music Creation - iLearn2 Primary Computing. Made Easy. Pupil code – 44M5	<i>Explore how sounds can be changed (30-50 months)</i> <i>Explore different sounds of instruments (40-60 months)</i> <i>They select and use technology for a particular purpose (Early Learning Goals)</i> <i>Represent own ideas through music (Early Learning Goals)</i>	Rhythm Melody Tempo
Digital photos and videos EYFS - Digital Photos and Videos - iLearn2 Primary Computing. Made Easy.	<i>Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for a particular purpose.</i> <i>Knows how to operate simple equipment (30-50 months)</i> <i>Choose particular colours for a purpose (40-60 months)</i> <i>Communication and Language (Speaking)</i> <i>Writing (Early Learning Goals)</i>	Colour Picture Photo Video Camera
Digital art and design EYFS - Digital Art and Design - iLearn2 Primary Computing. Made Easy. Pupil code – MM78	<i>Uses simple tools and techniques competently and appropriately (40-60+ months)</i> <i>Selects appropriate resources and adapts them where necessary (40-60+ months)</i> <i>Explores how colours can be changed (30-50 months)</i> <i>Chooses particularly colours to use for a purpose (40-60 months)</i>	Fill Paint Draw Tool

Cross curricular options

Literacy and Numeracy skills EYFS - Digital Numeracy and Literacy - iLearn2 Primary Computing. Made Easy.	<i>Knows that information can be retrieved from a computer (30-50 months)</i> <i>Interacts with age-appropriate computer software. (40-60 months),</i> <i>Knows that information can be relayed in the form of print (40-60 months)</i> <i>Interacts with age appropriate computer software. (40-60 months)</i>	
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<p>NC - Use technology purposefully to create, organise and manipulate digital content</p>	<ul style="list-style-type: none"> - Position objects in relation to each other. - Resize, rotate, flip and arrange objects behind/in front of each other. 	<p>Arrange Flip</p>
<p><u>Text and Images (3-4 hour)</u> Year 1 Text & Images - iLearn2 Primary Computing. Made Easy. Pupil code – T824 NC - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<ul style="list-style-type: none"> - Change the background colour of a page. - Add, resize and position images (pictures) on a page. - Type and position text on a page, if possible using capital letters and punctuation. - Label pictures with text. - Use word-banks for writing sentences about pictures. 	<p>Icon Object Drag Text box Shift Image</p>
<p><u>Music creation (2 hours)</u> EYFS/Year 1 Music Creation - iLearn2 Primary Computing. Made Easy. Pupil code – 44M5 NC - Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<ul style="list-style-type: none"> - Create a rhythm using a pattern of beats. - Create digital sounds using patterns and shapes. - Create a simple melody using patterns and adjust tempo. 	<p>Rhythm Melody Tempo</p>
LEGO Spike Essential		
Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>FIRST LEGO League Explore</u></p>	<ul style="list-style-type: none"> • Begin brainstorming solutions for the challenge problem. • Learn to use SPIKE™ Essential to help solve the Explore challenge 	<p>Brainstorm Design Test iterate</p>

Year 2

Computer Science

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Develop Programming (4-5 hours)</u> Year 2 Programming - iLearn2 Primary Computing. Made Easy. Pupil code – D942</p> <p>NC – <i>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions. Create and debug simple programs.</i> <i>Use logical reasoning to predict the behaviour of simple programs.</i></p>	<ul style="list-style-type: none"> - Create and debug simple programs by selecting code blocks, placing them in the correct sequence and executing a program. - Use logical reasoning to predict the behaviour of simple programs. - Simplify a program by using a loop. 	<p>Sequence Algorithm Predict Execute Debug</p>

Digital Literacy

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Recognise uses of IT (1-2hours)</u> Year 2 Uses of IT - iLearn2 Primary Computing. Made Easy. Pupil code - RR87</p> <p>NC - <i>Recognise common uses of information technology beyond school.</i></p>	<ul style="list-style-type: none"> - Understand what makes a computer a computer. - Understand computers store and follow instructions. - Spot digital technology in school. - Understand how different technology helps us. 	<p>Microprocessor Analogue Digital</p>
<p><u>E-Safety (1-2hours)</u> E-safety - Key Stage 1 - iLearn2 Primary Computing. Made Easy. Pupil code - ES75</p> <p>NC - <i>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</i></p>	<ul style="list-style-type: none"> - What are the dangers of sharing photos online? - People online are not always who they say they are. - Trusting information online. - Using the Internet responsibly. - Being respectful. 	<p>Personal information Sharing Permission Report Trust Respect</p>
<p><u>Internet research (1 hour)</u> Year 2 Research - iLearn2 Primary Computing. Made Easy. Pupil code – R287</p> <p>NC - <i>Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.</i></p>	<ul style="list-style-type: none"> - Understand how a web page displays information in different ways; text, images, videos and interactive elements. - Use a web page to answer questions. 	<p>Internet browser Webpage Keywords Video Transcript Bullet points</p>

Information Technology

Unit	Progression of Knowledge & skills	Key Vocabulary
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<p><u>Digital Art (3-4 hours)</u> Year 2 Digital Art - iLearn2 Primary Computing. Made Easy. Pupil code – DP93 NC - <i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i></p>	<ul style="list-style-type: none"> - Use lines and fill tools to make interesting patterns. - Add a variety of shapes (outlines and fill) and label them with text. - Re-create graphics using pixels with different colours. 	<p>Pixels Fill Text PNG GIF</p>
<p><u>Introduction to Data Handling (2-3 hours)</u> Year 2 Data Handling - iLearn2 Primary Computing. Made Easy. Pupil code – 33YY NC - <i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i></p>	<ul style="list-style-type: none"> – Understand what data is and collect it as a tally. – Use software to label a pictogram and add data to each column. – Edit a table with correct titles and numbers. – Use software to create a bar chart/pie chart/line chart suitable for the data. – Interpret a pictogram/bar chart/line chart. 	<p>Table Bar chart Pie chart Pictogram</p>
<p><u>Introduction to Animation (2-4 hours)</u> Year 2 Animation - iLearn2 Primary Computing. Made Easy. Pupil code – A798 NC - <i>Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</i></p>	<ul style="list-style-type: none"> - Add a background and objects to a frame (including text) - Copy/clone a frame and move objects to create an animation, including flipping objects. - Create an animation with multiple objects moving simultaneously. - Create screen-recording animation (<i>optional, requires iPad</i>). - Create stop-motion animation with photos (<i>optional, requires iPad</i>). - Create animated drawings of characters by cropping photos and adjusting points of movement 	<p>Frame Clone Onion Skin Frame Rate</p>

LEGO Spike Essential

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Amazing Amusement Park</u></p>	<ul style="list-style-type: none"> • Practise brainstorming to generate ideas • Practise helping a story character • Describe key ideas or details from a text • Improve and refine a prototype as part of the design process • Practise helping a story character • Describe key ideas or details from a text • Gather information about the other's needs or wants • Change a solution to meet others' needs or wants • Practise helping a story character • Describe key ideas or details from a text 	<p>brainstorm, build, challenge, create, program and upgrade.</p>

Year 3

Computer Science

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Programming in Scratch (4-6 hours)</u> Year 3 Scratch - iLearn2 Primary Computing. Made Easy. Pupil code –19QA, SQ43, SK32, SC87, ST67</p> <p>NC – <i>Design, write and debug programs that accomplish specific goal, including simulating physical systems. Use sequence and repetition in programs; work with various forms of input.</i></p>	<ul style="list-style-type: none"> - Design, write and debug programs that accomplish specific goals. (Including outputs) - Use repetition in programs. - Work with various forms of inputs; keyboard, mouse and touch screen. - Write programs to simulate physical systems. 	<p style="text-align: center;">Sprite Stage Sequence Debug Loops Repetitions Inputs</p>

Digital Literacy

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>E-safety (1-2 hours)</u> E-safety - Key Stage 2 - iLearn2 Primary Computing. Made Easy. Pupil code – ES82</p> <p>NC – <i>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i></p>	<ul style="list-style-type: none"> - Understand what to do if something upsets you online. - Understand why and how people can be nasty online. - Describe the term ‘sharing online’ and why we need to get permission to share photos and videos of other people. - Understand why people pretend to be someone else online. - Understand why we only talk to people we know in the real world, when online. - Understand why we should not always trust what we read online and how to check - Understand the importance of being kind in the real world and also online. - Understand the importance of using avatars and how to make them. 	<p style="text-align: center;">Personal information Sharing Permission Report Trust Respect</p>

Information Technology

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Comic Creation (3 hours)</u> Year 1/3 Comic Creation - iLearn2 Primary Computing. Made Easy. Pupil code – 45TT</p> <p>NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Add, resize and organise colour or picture backgrounds. - Add, resize, organise characters/objects to different panels. - Add narration using text and direct speech using speech bubbles. - Save comic with name and title. - Add audio recordings (optional). 	<p style="text-align: center;">Panel Narration Stickers Scale Arrange Flip</p>
<p><u>Digital Art (4-6 hours)</u> Year 3 Digital Art - iLearn2 Primary Computing. Made Easy. Pupil code –DP97</p> <p>NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Use various lines and fill tools plus copy/paste and rotation to create pattern effects. - Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. - Use stamps, copy/paste, layers and multiple frames to create animated GIF computer game graphics. 	<p style="text-align: center;">Rotation Zoom Flip Symmetry Stamp GIF</p>

<p><u>Music Creation (2-3 hours)</u> Year 3 Music Creation - iLearn2 Primary Computing. Made Easy. Pupil code – MM87 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Create ascending and descending scales. - Add chords evenly across the scales. - Add arpeggios and melodies. - Add a steady and even rhythm. - Use sampled sounds to create an effective mix. - Build beats, melody (tones) and effects. 	<p>Scales Chords Arpeggio Bars and Beats Samples sounds Effects</p>
<p><u>Document Editing and Creation (1-2 hours)</u> Year 3 Document Creation - iLearn2 Primary Computing. Made Easy. Pupil code – DW34 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Copy and Paste text and images. - Find and replace words. - Format text for a purpose. - Add bullet points to make lists. - Experiment with keyboard shortcuts. 	<p>Word processor Find and replace Format Text Wrapping Keyboard shortcuts Bullet points</p>
<p><u>3D Design (3-5 hours)</u> Year 3 3D Design - iLearn2 Primary Computing. Made Easy. Pupil code – D776 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Understand and use 3D space on a grid. - Design cities/towns for a purpose and to a budget. - Re-create or design familiar 3D models using cubes, such as tables and chairs. - Use chisel tool to improve and adapt models. - Colour individual blocks or whole models. 	<p>3D Rotate Zoom Grid Chisel, Hammer, Trowel Spray Bucket</p>
LEGO Spike Essential		
Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Great Adventures</u></p>	<ul style="list-style-type: none"> • Follow instructions to create a program • Identify the main characters in a story • Practise helping a story character • Participate in collaborative conversations 	<p>challenge, change, program, push and robot</p>

Year 4

Computer Science

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Programming in scratch (6-8 hours)</u> Year 4 Scratch - iLearn2 Primary Computing. Made Easy. Pupil code – SR37, SB63, SB72, 163A, VX62</p> <p>NC – <i>Design, write and debug programs that accomplish specific goals.</i> <i>Use sequence, selection, and repetition in programs; work with various forms of input and output.</i> <i>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</i></p>	<ul style="list-style-type: none"> - Program inputs with loops, selection and sensing for interactions. - Work with variables and various forms of input and output. - Debug programs that accomplish goals. (correcting errors) - Use selection, data variables and operators. - Program a virtual robot using Scratch blocks. 	<p>Input Selection Sensing Variables Debug</p>

Digital Literacy

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Internet Research (3-4 hours)</u> Year 4 Inside a Computer - iLearn2 Primary Computing. Made Easy. Pupil code – CCY2</p> <p>NC – <i>Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.</i></p>	<ul style="list-style-type: none"> - Use search technologies to find specific pieces of information. - Understand features of an Internet Browser. - Reference the correct source of information. - Be discerning in evaluating digital content. - Check the internet for fake news by cross-referencing facts. 	<p>Internet Browser Web Address Address Bar Search Engine WWW Ranking</p>
<p><u>E-Safety (1-2 hours)</u> E-safety - Key Stage 2 - iLearn2 Primary Computing. Made Easy. Pupil code – ES82</p> <p>NC – <i>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i></p>	<ul style="list-style-type: none"> - Understand what to do if something upsets you online. - Understand why and how people can be nasty online. - Describe the term 'sharing online' and why we need to get permission to share photos and videos of other people. - Understand why people pretend to be someone else online. - Understand why we only talk to people we know in the real world, when online. - Understand why we should not always trust what we read online and how to check - Understand the importance of being kind in the real world and also online. - Understand the importance of using avatars and how to make them. 	<p>Personal information Sharing Permission Report Trust Respect</p>

Information Technology

Unit	Progression of Knowledge & skills	Key Vocabulary
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<p>Animation (5-7 hours) Year 4 Animation - iLearn2 Primary Computing. Made Easy. Pupil code – 1J77 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Create a stop-motion video by duplicating slides that include backgrounds and shapes. - Create animation using transition and animation effects (morph, motion paths, pulse etc), including taking and editing a screenshot. - Animate individual elements of objects. - Create animated GIF files by animating pixels. 	<p>Frame Clone Onion Skin Frame Rate Timeline Transition GIF</p>
<p>Data Handling (3-4 hours) Year 4 Data Handling - iLearn2 Primary Computing. Made Easy. Pupil code – D953 NC – <i>Collecting, analysing, evaluating and presenting data and information.</i></p>	<ul style="list-style-type: none"> - Change appearance of cells in a spreadsheet (fill colour and border) then add and align text. - Find and add data to a spreadsheet, resize cells and use the software to create a suitable chart with a title. 	<p>Spreadsheet Cell Bar chart Pie chart Line Graph</p>
<p>3D design (6-8 hours) Year 4 3D Design - iLearn2 Primary Computing. Made Easy. Pupil code – 3D92 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals</i></p>	<ul style="list-style-type: none"> - Understand 3D spacial awareness. - Add 3D shapes, resize, adjust height, duplicate and use the different perspective. - Re-create different types of buildings using 3D shapes. - Create roads/paths by adjusting the height of 3D shapes. - Add windows and door shapes. 	<p>Zoom Work plane Viewpoint Perspective Orthographic Duplicate</p>
<p>Video editing (2-3 hours) Year 4 Video Editing - iLearn2 Primary Computing. Made Easy. Pupil code – VK34 NC – <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Add scene images. - Add scripted voiceover audio, adjust the volume and crop clips (including splitting a clip). - Add more clips and use transition effects. - Add titles. - Use elements such as shapes. - Add music background music and adjust the volume. - Export a project. 	<p>Clips Timelines Split Transitions Titles Voiceovers Export</p>

LEGO Spike Essential

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Crazy Carnival Games</u></p>	<ul style="list-style-type: none"> • Explore the basic principles of energy and their connection to an object's speed • Identify and describe the relationship between speed and energy • Engage effectively in a range of collaborative discussions 	<p>energy, motion, program, test and upgrade</p>

Year 5

Computer Science

Unit	Progression of Knowledge & skills	Key Vocabulary
<p>Programming in Scratch (5-7 hours) Year 5 Scratch - iLearn2 Primary Computing. Made Easy. Pupil code – 4T46, VMQ2, SST9, SC47 NC - <i>Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</i></p>	<ul style="list-style-type: none"> - Program inputs for control, selection (conditions) and sensing for interaction and data variables for scoring and a game timer. - Program distance sensing and movement. - Program Inputs, outputs, loops, conditions, sensing and variables. - Program list variables that chooses randomly. 	Inputs Selection Sensing Variables Debug
<p>Physical Devices (1-3 hours) Year 5 Physical Systems - iLearn2 Primary Computing. Made Easy. Pupil code – MBH2 NC - <i>Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</i></p>	<ul style="list-style-type: none"> - Understand that computers use physical inputs and outputs and give examples. - Program physical inputs, outputs (e.g program LED lights) and random variables. - Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. 	Microbit Outputs Inputs Accelerometer Processor

Digital Literacy

Unit	Progression of Knowledge & skills	Key Vocabulary
<p>Computer Networks and the Internet (2-3 hours) Year 5 Computer Networks - iLearn2 Primary Computing. Made Easy. Pupil code – N7X8 NC - <i>Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</i></p>	<ul style="list-style-type: none"> - Understand Computer Networks, Internet and Cloud Computing and how they help us. - What is email and how can we use it safely? - Understand how and why we collaborate online (including blogging). 	Server Router Firewall IP address Wireless Access Point Cloud Computing

Information Technology

Unit	Progression of Knowledge & skills	Key Vocabulary
<p>App Design (4-6 hours) Year 5 App Design - iLearn2 Primary Computing. Made Easy. Pupil code – 81T2 NC - <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and</i></p>	<ul style="list-style-type: none"> - Adjust slide size to mimic a phone/tablet size. - Add text and images to a slide. - Add icons and text to use as navigation. 	Screen Dimensions Icons Navigation Hyperlinks Duplicate

<p><i>create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Duplicate slides to create multiple pages of the app. - Create hyperlinks to create navigation. 	
<p>Data Handling (3-4 hours) Year 5 Data Handling - iLearn2 Primary Computing. Made Easy. Pupil code – DZT3</p> <p>NC - <i>Select, use and combine a variety of software (including internet services). Collecting, analysing, evaluating and presenting data and information.</i></p>	<ul style="list-style-type: none"> - Select and use non-adjacent cells plus resize multiple cell widths and copy/paste cells. - Use formulae to find totals, averages and maximum/minimum numbers. - Find data and create a spreadsheet to suit it. - Search a database for specific information. 	<p>Spreadsheet Cell Formula Database Record Field Sort</p>
<p>Music Creation (2-3 hours) Year 5 Music Creation - iLearn2 Primary Computing. Made Easy. Pupil code – WXY4, GBX7</p> <p>NC - <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Layer tracks using sounds and effects. - Create effective instrument tracks. - Edit tracks and effectively adjust volume and add effects. 	<p>Scales Chords Arpeggio Bars and Beats Sample sounds Effects</p>
LEGO Spike Essential		
Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Crazy Carnival Games</u></p>	<ul style="list-style-type: none"> • Explore the basic principles of energy and their connection to an object's speed • Identify and describe the relationship between speed and energy • Engage effectively in a range of collaborative discussions • Predict outcomes of the energy changes that occur when objects collide • Observe and describe the relationship between energy and force • Engage effectively in a range of collaborative discussions 	<p>energy, motion, program, test and upgrade force, modify, potential energy and ramp</p>
<p><u>Happy Traveller</u></p>	<ul style="list-style-type: none"> • Develop a sequence to solve a problem • Decompose problems into smaller parts • Recount an experience using relevant facts and descriptive details • Identify and fix errors within a program (test and debug) • Explore two-dimensional shapes and angles • Recount an experience using relevant facts and descriptive details 	<p>improve, modify, program, sequence, test and upgrade backwards, debug, direction, forwards, frustrated and route</p>

Year 6

Computer Science

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Programming in Scratch – Yr6</u> Year 6 Scratch - iLearn2 Primary Computing. Made Easy. Pupil code – SKT7, SPF2, 541A, SPW2, SPG4 NC - <i>Design, write and debug programs that accomplish specific goals; solve problems by decomposing them into smaller parts.</i> <i>Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</i> <i>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</i></p>	<ul style="list-style-type: none"> - Program keyboard/touch screen inputs, selection (conditions), loops and random variables for unpredictability (operators). - Program inputs, selection, sensing, random variables, operators for direction and data variables for scoring. - Use inputs, selection, loops, sensing, costume changes and broadcasts. - Work with multiple sprites to send broadcast messages between them 	<p>Input Operators Sensing Variable Broadcast</p>

Digital Literacy

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>E-Safety Yr6 (1-2 hours)</u> E-safety - Key Stage 2 - iLearn2 Primary Computing. Made Easy. Pupil code – ES82 NC- <i>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</i></p>	<ul style="list-style-type: none"> - Keep personal information private. - Respect and protect against online bullies. - Understand the consequences of sharing photo/videos online. - Understand the term digital footprint. - How can we check online content is trustworthy. - How, where and who can we report concerns we have to. - Use suitable usernames and passwords for online accounts. - Understand the pitfalls of in-app purchases. 	<p>Personal information Sharing Permission Report Trust Respect</p>

Information Technology

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Graphic Design (2 hours)</u> Year 6 Graphic Design - iLearn2 Primary Computing. Made Easy. Pupil code – A780 NC- <i>Design and create digital content to accomplish goals.</i></p>	<ul style="list-style-type: none"> - Add, adjust and fill shapes. - Group shapes to improve accuracy and speed. - Add and customise gradient effects. - Adjust transparency/opacity for a purpose. - Use a colour picker correctly. - Accurately rotate shapes. 	<p>Grouping Gradient Transparency / Opacity Colour picker Arrange</p>
<p><u>Image editing (3-4 hours)</u> Year 6 Image Editing - iLearn2 Primary Computing. Made Easy. Pupil code - EFZ6 NC - <i>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals.</i></p>	<ul style="list-style-type: none"> - Adjust the colours, brightness and contrast to improve a photo. - Create a before and after slide in presentation software. - Take and crop a screenshot. - Add drawing and text layers. - Import new images as layers and resize them to fit. - Add colour elements to a black and white image using layers and eraser tools. 	<p>Crop Aspect ratio Filter Colour editing Lighting editing</p>

<p>Data detectives (1 hour+) Year 6 Data Detectives - iLearn2 Primary Computing. Made Easy. Pupil code – DE45</p> <p>NC - <i>Select, use and combine a variety of software (including internet services). Collecting, analysing, evaluating and presenting data and information.</i></p>	<ul style="list-style-type: none"> - Use comprehension skills to find clues that match the column headings of a spreadsheet. - Use spreadsheet tools (filters and conditional formatting) to find the specific data to match the clues. 	<p>Spreadsheet Cell Filter Conditional formatting</p>
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LEGO Spike Essential

Unit	Progression of Knowledge & skills	Key Vocabulary
<p><u>Happy Traveller</u></p>	<ul style="list-style-type: none"> • Develop a sequence to solve a problem • Decompose problems into smaller parts • Recount an experience using relevant facts and descriptive details • Identify and fix errors within a program (test and debug) • Explore two-dimensional shapes and angles • Recount an experience using relevant facts and descriptive details 	<p>improve, modify, program, sequence, test and upgrade backwards, debug, direction, forwards, frustrated and route</p>
<p><u>Quirky Creations</u></p>	<ul style="list-style-type: none"> • Define and understand a problem • Brainstorm and iterate in order to create a solution that meets the described needs • Engage effectively in a range of collaborative discussions • Define and understand a problem • Brainstorm and iterate in order to create a solution that meets the described needs • Engage effectively in a range of collaborative discussions 	<p>challenge, create, innovate, program, test and upgrade control, constraint, design, robot and solution</p>