

Computing at Peel Park (Scheme - NCCE Teach Computing)



Autumn Term

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Recognition and uses of digital devices.</p> <p>Online Safety</p>	<p>Computing systems and networks - Technology around us</p> <p>Lesson Sequence: L1: Technology in our classroom <u>L1: To identify technology.</u></p> <p>L2: Using Computer Technology <u>L1: To identify a computer and its main parts.</u></p> <p>L3: Developing mouse skills <u>L1: To use a mouse in different ways.</u></p>	<p>Computing systems and networks - IT around us</p> <p>Lesson Sequence: L1: What is IT? <u>L1: To recognise the uses and features of information technology.</u></p> <p>L2: IT in school <u>L1: To identify the uses of information technology in the school.</u></p> <p>L3: IT in the world <u>L1: To identify information technology beyond school.</u></p>	<p>Computing systems and networks - Connecting computers</p> <p>Lesson Sequence: L1: How does a digital device work? <u>L1: To explain how digital devices function.</u></p> <p>L2: What parts make up a digital device? <u>L1: To identify input and output devices.</u></p> <p>L3: How do digital devices help us? <u>L1: To recognise how digital devices can change the way we work.</u></p>	<p>Computing systems and networks - The Internet</p> <p>Lesson Sequence: L1: Connecting networks <u>L1: To describe how networks physically connect to other networks.</u></p> <p>L2: What is the internet made of? <u>L1: To recognise how networked devices make up the internet.</u></p> <p>L3: Sharing information <u>L1: To outline how websites can be shared via the World Wide Web (WWW).</u></p>	<p>Computing systems and networks - systems and searching</p> <p>Lesson Sequence: L1: Systems <u>L1: To explain that computers can be connected together to form systems.</u></p> <p>L2: Computer systems and us <u>L1: To recognise the role of computer systems in our lives.</u></p> <p>L3: Searching the web <u>L1: To experiment with search engines.</u></p>	<p>Computing systems and networks - Communication and collaboration</p> <p>Lesson Sequence: L1: Internet addresses <u>L1: To explain the importance of internet addresses.</u></p> <p>L2: Data packets <u>L1: To recognise how data is transferred across the internet.</u></p> <p>L3: Working together <u>L1: To explain how sharing information online can help people to work together.</u></p>

<p>L4: Using a computer keyboard <u>LI: To use a keyboard to type on a computer.</u></p> <p>L5: Developing keyboard skills <u>LI: To use the keyboard to edit text.</u></p> <p>L6: Using a computer responsibly. <u>LI: To create rules for using technology responsibly.</u></p> <p>L7 E-safety</p> <hr/> <p>Creating media - Digital painting</p> <p>Lesson Sequence: LI: How can we paint using computers? <u>LI: To describe what different freehand tools do.</u></p>	<p>L4: The benefits of IT <u>LI: To explain how information technology helps us.</u></p> <p>L5: Using IT safely <u>LI: To explain how to use information technology safely.</u></p> <p>L6: Using IT in different ways <u>LI: To recognise that choices are made when using information technology.</u></p> <p>L7: E-safety</p> <hr/> <p>Creating media - Digital photography</p> <p>Lesson Sequence: LI: Taking Photographs <u>LI: To use a digital device to take a photograph.</u></p>	<p>L4: How am I connected? <u>LI: To explain how a computer network can be used to share information.</u></p> <p>L5: How are computers connected? <u>LI: To explore how digital devices can be connected.</u></p> <p>L6: What does our school network look like? <u>LI: To recognise the physical components of a network.</u></p> <p>L7: E-safety</p> <hr/> <p>Creating media - Stop-frame animation</p> <p>Lesson Sequence: LI: Can a picture move? <u>LI: To explain that animation is a</u></p>	<p>L4: What is a website? <u>LI: To describe how content can be added and accessed on the World Wide Web (WWW).</u></p> <p>L5: Who owns the web? <u>LI: To recognise how the content of the WWW is created by people.</u></p> <p>L6: Can I believe what I read? <u>LI: To evaluate the consequences of unreliable content.</u></p> <p>L7: E-safety</p> <hr/> <p>Creating media - Audio production</p> <p>Lesson Sequence: LI: Recording sound <u>LI: To identify that sound can be recorded.</u></p> <p>L2: Editing audio</p>	<p>L4: Selecting search results <u>LI: To describe how search engines select results.</u></p> <p>L5: How search results are ranked <u>LI: To explain how search results are ranked.</u></p> <p>L6: How are searches influenced <u>LI: To recognise why the order of results is important, and to whom.</u></p> <p>L7: E-safety</p> <hr/> <p>Creating media - Video production</p> <p>Lesson Sequence: LI: What is video? <u>LI: To explain what makes a video effective.</u></p> <p>L2: Filming techniques</p>	<p>L4: Shared working <u>LI: To evaluate different ways of working together online.</u></p> <p>L5: How we communicate <u>LI: To recognise how we communicate using technology.</u></p> <p>L6: Communicating responsibly <u>LI: To evaluate different methods of online communication.</u></p> <p>L7: E-safety</p> <hr/> <p>Creating media - Web page creation</p> <p>Lesson Sequence: LI: What makes a good website? <u>LI: To review an existing website and consider its structure.</u></p> <p>L2: Becoming a web designer</p>
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<p>L2: Using shapes and lines <u>LI: To use the shape tool and the line tools.</u></p> <p>L3: Making careful choices <u>LI: To make careful choices when painting a digital picture.</u></p> <p>L4: Why did I choose that? <u>LI: To explain why I chose the tools I used.</u></p> <p>L5: Painting all by myself <u>LI: To use a computer on my own to paint a picture.</u></p> <p>L6: Comparing computer art and painting <u>LI: To compare painting a picture on a computer and on paper.</u></p>	<p>L2: Landscape or portrait? <u>LI: To make choices when taking a photograph.</u></p> <p>L3: What makes a good photograph? <u>LI: To describe what makes a good photograph.</u></p> <p>L4: Lighting <u>LI: To decide how photographs can be improved.</u></p> <p>L5: Effects LI: To use tools to change an image.</p> <p>L6: Is it real? <u>LI: To recognise that photos can be changed.</u></p> <p>L7: E-safety</p>	<p><u>sequence of drawings or photographs.</u></p> <p>L2: Frame by frame <u>LI: To relate animated movement with a sequence of images.</u></p> <p>L3: What's the story? <u>LI: To plan an animation.</u></p> <p>L4: Picture perfect <u>LI: To identify the need to work consistently and carefully.</u></p> <p>L5: Evaluate and make it great! <u>LI: To review and improve an animation.</u></p> <p>L6: Lights, camera, action! <u>LI: To evaluate the impact of adding other media to an animation.</u></p> <p>L7: E-safety</p>	<p><u>LI: To explain that audio recordings can be edited.</u></p> <p>L3: Planning a podcast <u>LI: To recognise the different parts of creating a podcast project.</u></p> <p>L4: Creating a podcast <u>LI: To recognise the different parts of creating a podcast project.</u></p> <p>L5: Behind the scenes <u>LI: To combine audio to enhance my podcast project.</u></p> <p>L6: Evaluating podcasts <u>LI: To evaluate the effective use of audio.</u></p> <p>L7: E-safety</p>	<p><u>LI: To identify digital devices that can record video.</u></p> <p>L3: Using a storyboard <u>LI: To capture video using a range of techniques.</u></p> <p>L4: Planning a video <u>LI: To create a storyboard.</u></p> <p>L5: Importing and editing video <u>LI: To identify that video can be improved through reshooting and editing.</u></p> <p>L6: Video evaluation <u>LI: To consider the impact of the choices made when making and sharing a video.</u></p> <p>L7: E-safety</p>	<p><u>LI: To plan the features of a web page.</u></p> <p>L3: Copyright or CopyWRONG? <u>LI: To consider the ownership and use of images (copyright).</u></p> <p>L4: How does it look? <u>LI: To recognise the need to preview pages.</u></p> <p>L5: Follow the breadcrumbs <u>LI: To outline the need for a navigation path.</u></p> <p>L6: Think before you link! <u>LI: To recognise the implications of linking to content owned by other people.</u></p> <p>L7: E-safety</p>
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	L7: E-safety					
Spring Term						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Research using the internet</p> <p>Basic laptop skills (logging on, features of a keyboard and mouse control)</p>	<p>Programming A - Moving a robot</p> <p>Lesson Sequence: LI: Buttons <u>LI: To explain what a given command will do.</u></p> <p>L2: Directions <u>LI: To act out a given word.</u></p> <p>L3: Forwards and backwards <u>LI: To combine forwards and backwards commands to make a sequence.</u></p> <p>L4: Four directions <u>LI: To combine four direction commands to make sequences.</u></p> <p>L5: Getting there</p>	<p>Programming A - Robot algorithms</p> <p>Lesson Sequence: LI: Giving instructions <u>LI: To describe a series of instructions as a sequence.</u></p> <p>L2: Same but different <u>LI: To explain what happens when we change the order of instructions.</u></p> <p>L3: Making predictions <u>LI: To use logical reasoning to predict the outcome of a program.</u></p> <p>L4: Mats and routes <u>LI: To explain that programming projects can have code and artwork.</u></p>	<p>Programming A - Sequencing sounds</p> <p>Lesson Sequence: LI: Introduction to Scratch <u>LI: To explore a new programming environment.</u></p> <p>L2: Programming sprites <u>LI: To identify that commands have an outcome.</u></p> <p>L3: Sequences <u>LI: To explain that a program has a start.</u></p> <p>L4: Ordering commands <u>LI: To recognise that a sequence of commands can have an order.</u></p> <p>L5: Looking good</p>	<p>Programming A - Repetition in shapes</p> <p>Lesson Sequence: LI: Programming a screen turtle <u>LI: To identify that accuracy in programming is important.</u></p> <p>L2: Programming letters <u>LI: To create a program in a text-based language.</u></p> <p>L3: Patterns and repeats <u>LI: To explain what 'repeat' means.</u></p> <p>L4: Using loops to create shapes <u>LI: To modify a count-controlled loop to produce a given outcome.</u></p>	<p>Programming A - Selection in physical computing</p> <p>Lesson Sequence: LI: Connecting Crumbles <u>LI: To control a simple circuit connected to a computer.</u></p> <p>L2: Combining output components <u>LI: To write a program that includes count-controlled loops.</u></p> <p>L3: Controlling with conditions <u>LI: To explain that a loop can stop when a condition is met.</u></p> <p>L4: Starting with selection</p>	<p>Programming A - Variables in games</p> <p>Lesson Sequence: LI: Introducing variables <u>LI: To define a 'variable' as something that is changeable.</u></p> <p>L2: Variables in programming <u>LI: To explain why a variable is used in a program.</u></p> <p>L3: Improving a game <u>LI: To choose how to improve a game by using variables.</u></p> <p>L4: Becoming a games designer <u>LI: To design a project that builds on a given example.</u></p>

<p>L1: To plan a simple program.</p> <p>L6: Routes <u>L1: To find more than one solution to a problem.</u></p> <p>L7: E-safety</p> <hr/> <p>Data and information - Grouping data</p> <p>Lesson Sequence: L1: Label and match <u>L1: To label objects.</u></p> <p>L2: Group and count <u>L1: To identify that objects can be counted.</u></p> <p>L3: Describe an object <u>L1: To describe objects in different ways.</u></p>	<p>L5: Algorithm design <u>L1: To design an algorithm.</u></p> <p>L6: Debugging <u>L1: To create and debug a program that I have written.</u></p> <p>L7: E-safety</p> <hr/> <p>Data and information - Pictograms</p> <p>Lesson Sequence: L1: Counting and comparing <u>L1: To recognise that we can count and compare objects using tally charts.</u></p> <p>L2: Enter the data <u>L1: To recognise that objects can be represented as pictures.</u></p> <p>L3: Creating pictograms</p>	<p><u>L1: To change the appearance of my project.</u></p> <p>L6: Making an instrument <u>L1: To create a project from a task description.</u></p> <p>L7: E-safety</p> <hr/> <p>Data and information - Branching databases</p> <p>Lesson Sequence: L1: Yes or no questions <u>L1: To create questions with yes/no answers.</u></p> <p>L2: Making groups <u>L1: To identify the attributes needed to collect data about an object.</u></p> <p>L3: Creating a branching database</p>	<p>L5: Breaking things down <u>L1: To decompose a task into small steps.</u></p> <p>L6: Creating a program <u>L1: To create a program that uses count-controlled loops to produce a given outcome.</u></p> <p>L7: E-safety</p> <hr/> <p>Data and information - Data logging</p> <p>Lesson Sequence: L1: Answering questions <u>L1: To explain that data gathered over time can be used to answer questions.</u></p> <p>L2: Data collection <u>L1: To use a digital device to collect data automatically.</u></p> <p>L3: Logging</p>	<p><u>L1: To explain that a loop can be used to repeatedly check whether a condition has been met.</u></p> <p>L5: Drawing designs <u>L1: To design a physical project that includes selection.</u></p> <p>L6: Writing and testing algorithms L1: To create a program that controls a physical computing project.</p> <p>L7: E-safety</p> <hr/> <p>Data and information - Flat-file databases</p> <p>Lesson Sequence: L1: Creating a paper-based database. <u>L1: To use a form to record information.</u></p> <p>L2: Computer databases</p>	<p>L5: Design to code <u>L1: To use my design to create a project.</u></p> <p>L6: Improving and sharing <u>L1: To evaluate my project.</u></p> <p>L7: E-safety</p> <hr/> <p>Data and information - Introduction to Spreadsheets</p> <p>Lesson Sequence: L1: Collecting Data <u>L1: To create a data set in a spreadsheet.</u></p> <p>L2: Formatting a spreadsheet <u>L1: To build a data set in a spreadsheet.</u></p> <p>L3: What's the formula? <u>L1: To explain that formulas can be used to produce calculated data.</u></p>
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	<p>L4: Making different groups <u>LI: To count objects with the same properties.</u></p> <p>L5: Comparing groups and answering questions <u>LI: To compare groups of objects. To answer questions about groups of objects.</u></p>	<p><u>LI: To create a pictogram.</u></p> <p>L4: What is an attribute? <u>LI: To select objects by attribute and make comparisons.</u></p> <p>L5: Comparing people and presenting information <u>LI: To recognise that people can be described by attributes. To explain that we can present information using a computer.</u></p>	<p><u>LI: To create a branching database.</u></p> <p>L4: Structuring a branching database <u>LI: To explain why it is helpful for a database to be well structured.</u></p> <p>L5: Planning a branching database and two ways of presenting information <u>LI: To plan the structure of a branching database. To independently create an identification tool.</u></p>	<p><u>LI: To explain that a data logger collects 'data points' from sensors over time.</u></p> <p>L4: Analysing data <u>LI: To recognise how a computer can help us analyse data.</u></p> <p>L5: Data for answers to my question <u>LI: To identify the data needed to answer questions. To use data from sensors to answer questions.</u></p>	<p><u>LI: To compare paper and computer-based databases.</u></p> <p>L3: Using a database <u>LI: To outline how you can answer questions by grouping and then sorting data.</u></p> <p>L4: Using search tools <u>LI: To explain that tools can be used to select specific data.</u></p> <p>L5: Comparing data visually and using databases in real life <u>LI: To explain that computer programs can be used to compare data visually. To use a real-world database to answer questions.</u></p>	<p>L4: Calculate and duplicate <u>LI: To apply formulas to data.</u></p> <p>L5: Event planning and presenting data <u>LI: To create a spreadsheet to plan an event. To choose suitable ways to present data.</u></p>
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Summer Term

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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<p>Programming Online Safety</p>	<p>Creating media - Digital writing</p> <p>Lesson Sequence: L1: Exploring the keyboard <u>L1: To use a computer to write.</u></p> <p>L2: Adding and removing text <u>L1: To add and remove text on a computer.</u></p> <p>L3: Exploring the toolbar <u>L1: To identify that the look of text can be changed on a computer.</u></p> <p>L4: Making changes to text <u>L1: To make careful choices when changing text.</u></p> <p>L5: Explaining my choices <u>L1: To explain why I used the tools that I chose.</u></p>	<p>Creating media - Digital music</p> <p>Lesson Sequence: L1: How music makes us feel <u>L1: To say how music can make us feel.</u></p> <p>L2: Rhythms and patterns <u>L1: To identify that there are patterns in music.</u></p> <p>L3: How music can be used <u>L1: To experiment with sound using a computer.</u></p> <p>L4: Notes and tempo <u>L1: To use a computer to create a musical pattern.</u></p> <p>L5: Creating digital music <u>L1: To create music for a purpose.</u></p> <p>L6: Reviewing and editing music</p>	<p>Creating media - Desktop publishing</p> <p>Lesson Sequence: L1: Words and pictures <u>L1: To recognise how text and images convey information.</u></p> <p>L2: Can you edit it? <u>L1: To recognise that text and layout can be edited.</u></p> <p>L3: Great template! <u>L1: To choose appropriate page settings.</u></p> <p>L4: Becoming a designer <u>L1: To add content to a desktop publishing publication.</u></p> <p>L5: Lay it out <u>L1: To consider how different layouts can suit different purposes.</u></p> <p>L6: Why desktop publishing?</p>	<p>Creating media - Photo editing</p> <p>Lesson Sequence: L1: Changing digital images <u>L1: To explain that the composition of digital images can be changed.</u></p> <p>L2: Recolouring <u>L1: To explain that colours can be changed in digital images.</u></p> <p>L3: Cloning <u>L1: To explain how cloning can be used in photo editing.</u></p> <p>L4: Combining <u>L1: To explain that images can be combined.</u></p> <p>L5: Creating <u>L1: To combine images for a purpose.</u></p> <p>L6: Evaluating <u>L1: To evaluate how changes can improve an image.</u></p>	<p>Creating media - Introduction to vector graphics</p> <p>Lesson Sequence: L1: The drawing tools <u>L1: To identify that drawing tools can be used to produce different outcomes.</u></p> <p>L2: Creating images <u>L1: To create a vector drawing by combining shapes.</u></p> <p>L3: Making effective drawings <u>L1: To use tools to achieve a desired effect.</u></p> <p>L4: Layers and objects <u>L1: To recognise that vector drawings consist of layers.</u></p> <p>L5: Manipulating objects <u>L1: To group objects to make them easier to work with.</u></p>	<p>Creating media - 3D Modelling</p> <p>Lesson Sequence: L1: Introduction to 3D modelling <u>L1: To recognise that you can work in three dimensions on a computer.</u></p> <p>L2: Modifying 3D objects <u>L1: To identify that digital 3D objects can be modified.</u></p> <p>L3: Make your own name badge <u>L1: To recognise that objects can be combined in a 3D model.</u></p> <p>L4: Making a desk tidy <u>L1: To create a 3D model for a given purpose.</u></p> <p>L5: Planning a 3D model <u>L1: To plan my own 3D model.</u></p>
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	<p>L6: Pencil or keyboard <u>LI: To compare typing on a computer to writing on paper.</u></p> <hr/> <p>Programming B - Programming animations</p> <p>Lesson Sequence: L1: Comparing tools <u>LI: To choose a command for a given purpose.</u></p> <p>L2: Joining blocks <u>LI: To show that a series of commands can be joined together.</u></p> <p>L3: Make a change <u>LI: To identify the effect of changing a value.</u></p> <p>L4: Adding sprites <u>LI: To explain that each sprite has its own instructions.</u></p>	<p><u>LI: To review and refine our computer work.</u></p> <hr/> <p>Programming B - programming quizzes</p> <p>Lesson Sequence: L1: ScratchJr recap <u>LI: To explain that a sequence of commands has a start.</u></p> <p>L2: Outcomes <u>LI: To explain that a sequence of commands has an outcome.</u></p> <p>L3: Using a design <u>LI: To create a program using a given design.</u></p> <p>L4: Changing a design <u>LI: To change a given design.</u></p> <p>L5: Designing and creating a program</p>	<p><u>LI: To consider the benefits of desktop publishing.</u></p> <hr/> <p>Programming B - Events and actions in programs</p> <p>Lesson Sequence: L1: Moving a sprite <u>LI: To explain how a sprite moves in an existing project.</u></p> <p>L2: Maze movement <u>LI: To create a program to move a sprite in four directions.</u></p> <p>L3: Drawing lines <u>LI: To adapt a program to a new context.</u></p> <p>L4: Adding features <u>LI: To develop my program by adding features.</u></p> <p>L5: Debugging movement</p>	<p>Programming B - Repetition in games</p> <p>Lesson Sequence: L1: Using loops to create shapes <u>LI: To develop the use of count-controlled loops in a different programming environment.</u></p> <p>L2: Different loops <u>LI: To explain that in programming there are infinite loops and count controlled loops.</u></p> <p>L3: Animate your name <u>LI: To develop a design that includes two or more loops which run at the same time.</u></p> <p>L4: Modifying a game <u>LI: To modify an infinite loop in a given program.</u></p> <p>L5: Designing a game <u>LI: To design a project that includes repetition.</u></p>	<p>L6: Becoming a graphic designer <u>LI: To apply what I have learned about vector drawings.</u></p> <hr/> <p>Programming B - Selection in quizzes</p> <p>Lesson Sequence: L1: Exploring conditions <u>LI: To explain how selection is used in computer programs.</u></p> <p>L2: Selecting outcomes <u>LI: To relate that a conditional statement connects a condition to an outcome.</u></p> <p>L3: Asking questions <u>LI: To explain how selection directs the flow of a program.</u></p> <p>L4: Planning a quiz <u>LI: To design a program which uses selection.</u></p>	<p>L6: Make your own 3D model <u>LI: To create my own digital 3D model.</u></p> <hr/> <p>Programming B - Sensing movement</p> <p>Lesson Sequence: L1: The micro:bit <u>LI: To create a program to run on a controllable device.</u></p> <p>L2: Go with the flow <u>LI: To explain that selection can control the flow of a program.</u></p> <p>L3: Sensing inputs <u>LI: To update a variable with a user input.</u></p> <p>L4: Finding your way <u>LI: To use a conditional statement to compare a variable to a value.</u></p>
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	<p>L5: Project design <u>LI: To design the parts of a project.</u></p> <p>L6: Following my design <u>LI: To use my algorithm to create a program.</u></p> <p>L7: E-safety</p>	<p><u>LI: To create a program using my own design.</u></p> <p>L6: Evaluating <u>LI: To decide how my project can be improved.</u></p> <p>L7: E-safety</p>	<p><u>LI: To identify and fix bugs in a program.</u></p> <p>L6: Making a project <u>LI: To design and create a maze-based challenge.</u></p> <p>L7: E-safety</p>	<p>L6: Creating our games <u>LI: To create a project that includes repetition.</u></p> <p>L7: E-safety</p>	<p>L5: Testing a quiz <u>LI: To create a program which uses selection.</u></p> <p>L6: Evaluating a quiz <u>LI: To evaluate my program.</u></p> <p>L7: E-safety</p>	<p>L5: Designing a step counter <u>LI: To design a project that uses inputs and outputs on a controllable device.</u></p> <p>L6: Making a step counter <u>LI: To develop a program to use inputs and outputs on a controllable device.</u></p> <p>L7: E-safety</p>
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