West Green Primary Computing Progression

Skills	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing Systems and Networks	• To recognise technology at home and in school • To begin to understand how technology is used • To begin to understand about safety and technology	• To choose a piece of technology to do a job • To recognise that some technology can be used in different ways • To identify the main parts of a computer • To use a mouse in different ways • To show how to use technology safely • To use a keyboard to type • To use the keyboard to edit text	• To describe some uses of computers • To identify information technology beyond school • To identify information technology in school • To show how to use information technology safely • To explain how information technology helps us • To recognise choices are made when using information technology	• To identify input and output devices • To explain that a computer system accepts an input and processes it to produce an output • To explain how a computer network can be used to share information • To explain the role of a switch, server and the wireless access point in a network • To identify network devices around me, recognising how digital devices can change the way we work • To explain how networks can be connected to other networks	• To describe how networks physically connect to other networks • To recognise how networked devices, make up the internet • To outline how websites are shared via the WWW, describing how content can be added and accessed, and created by people • To evaluate the consequences of unreliable content	• To explain that computers can be connected together to form systems • To recognise the role of computer systems in our lives • To recognise how information is transferred over the internet • To explain how sharing information online lets people in different places work together, and evaluate • To contribute to a shared project online	• To compare results from different search engines, refining my search • To demonstrate that different search terms produce different results • To explain that search terms need to be chosen carefully • To evaluate the results of search terms, understanding how they are ranked • To identify that results from search engines can include adverts, and that the adverts could be targeted • To identify different ways to communicate without technology • To list methods of communication using the internet • To choose an appropriate method of internet communication for a given purpose • To evaluate different methods of online communication • To explain which types of media can be shared through the internet • To explain that communicating through the internet can be public or private • To decide what I should/Should not share • To classify internet communication by messenger and recipient or audience.

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Creating Media	• To explore the IWB, Ipads and computers to paint pictures, exploring what the tools and functions do • To take pictures on cameras and Ipads • To explore typing with an adult	• To use a computer to paint a picture • To open a word processor • To use basic tools to create an image, seeing what different freehand tools do • To use a wider variety of tools to create images • To use letter, number, and Space keys to enter text into a computer • To use punctuation and special characters • To use the backspace key to remove text • To position the text cursor in a chosen location • To use undo • To select text • To choose options to achieve a desired effect • To change the appearance of text on a computer • To explain why tools were chosen • To compare typing/painting on a computer to writing/painting on paper.	• To know use a digital device to take a picture • To know how to hold a device safely and responsibly • To make choices then taking a photograph, including: how to focus a camera and zoom in and out • To review photographs taken and decide how to improve them • To delete poor-quality images • To edit a photo - recolour and crop • To use a computer to create, review and refine a piece of music • To connect images with sound • To use a computer to experiment with pitch	• To explain what animation is • To plan, play, review, improve and evaluate an animation, using a storyboard • To capture an image • To use the onion skinning tool to review subject position • To move a subject between captures • To add media to enhance an animation • To show that a page orientation can be changed • To add text to a placeholder • To organise text and image placeholders in a page layout • To edit text in a placeholder • To choose appropriate page settings and consider how layouts suit different purposes • To choose fonts and apply effects to text • To add and remove images to and from the placeholders • To move, resize and rotate images • To review a document, considering the benefits of desktop publishing	• To record sound, play it back and identify the inputs and outputs required • To understand that a digital recording is stored as a file • To edit audio • To show different types of audio can be combined and played together • To evaluate editing choices • To use a computer to (further) manipulate images, describing how they can be changed for different uses • To change the composition of an image • To choose appropriate tools to retouch an image, and recognise not all images are real • To evaluate how changes can improve an image	• To create graphical objects on a computer screen, identifying drawing tools can produce different outcomes • To add or remove objects • To duplicate an image • To select or delete an object • To modify an object • To recognise drawings can consist of layers • To select multiple objects, grouping to make them easier to work with • To combine objects/shapes • To evaluate my drawing • To review existing video content and why it's effective • To plan and create a storyboard • To identify devices that record video • To capture (using a range of techniques), and edit/reshoot videos • To save and export a video file • To evaluate my video, thinking how my choices will impact the final outcome	• To create, develop and improve 3D graphical objects on a computer screen, and know how to manipulate them • To alter the view of the 3D space • To compare working digitally with 2D and 3D objects • To identify physical objects can be broken down into a collection of 3D objects • To review an existing website • To plan and create a new blank web page • To consider ownership and use of images • To add text and set the style on a web page • To embed media in a web page • To add web pages to a website • To preview a web page (different screen sizes) • To outline the need for a navigation path • To insert hyperlinks between pages, and to another people's work

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Data Information	• To begin to understand pictograms • To work as a class, and with an adult to create a simple piece of data collection – take photos etc. • To begin to talk about what has been collected	• To group objects to answer questions • To describe a group of objects (based on commonality) • To show that collected data can be counted • To identify some attributes of an object • To collect simple data • To describe the properties of an object • To choose an attribute to group objects by • To explain that objects can be grouped by similarities (attribute)	• To show I can enter data onto a computer • To recognise that people, animals and objects can be described by attributes • To use a computer to view data in different formats • To use pictograms to answer single-attribute questions • To use a computer to answer comparison questions (graphs, tables) • To explain we can present information using a computer	• To identify, create, retrieve and compare information from different levels of the branching database • To create questions with yes/no answers • To explain why it is helpful for a database to be well structured • To compare information between two different presentation ways	• To identify data that can be gathered over time, and suggest questions that can be answered • To use a digital device to collect data automatically, explain that a data logger collects 'data points' from sensors over time • To import data sets and use a computer to sort the data • To identify the data needed to answer questions, and draw conclusions from this	• To order, sort and group data cards • To design a structure for a flat-file database • To choose different ways to view data • To ask questions that need more than one attribute to answer • To choose which attribute to sort data by to answer a given question • To choose which attribute and value to search by to answer a given question (operands) • To choose multiple criteria to search data to answer a given question (AND/OR) • To select an appropriate graph to visually compare data, explaining the benefits of using a computer to create graphs • To choose suitable ways to present information to other people	• To explain the relevance of data headings • To build a data set in a spreadsheet application • To recognise that data can be calculated using different operations • To recognise that changing inputs also change outputs • To apply formulas to data, including duplication • To create a spreadsheet to plan an event • To choose suitable ways to present data, such as a table or graph.

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Programming	• To begin to follow a set of instructions to end up at a certain place • To explore beebots (or equivalent), to understand they move when buttons are pressed • To begin to be aware that their actions cause Ipads, computers, toys etc. to do something	• To explain what a command will do and act these out • To choose a series of words that can be enacted as a program (forwards, backwards, left, right) • To plan a simple program, finding more than one solution to a problem • To choose a series of commands that can be run as a program • To run a program on a device • To choose a command for a purpose • To identify the effect of changing a value • To explain that each Sprite has its own instructions	• To choose a series of words that can be enacted as a sequence • To explain what happens when we change the order of instructions • To choose a series of commands that can be run as a program • To trace a sequence to make a prediction • To explain programming projects can have code and artwork • To test a prediction by running the sequence • To create and debug a program that I have written • To design, explain, run and change a program on a device	• To build a sequence of commands, understanding they have an outcome • To combine commands in a program • To order commands in a program • To create a sequence of commands, from a task description. to produce a given outcome • To explain, create, adapt, develop, then identify and fix bugs in a program, designing and creating a maze-based challenge	• To identify accuracy in programming is important • To write an algorithm to produce a given outcome • To decompose a task into small steps • To use and modify a count-controlled loop to produce a given outcome, then develop this in a different programming environment • To use an indefinite loop to produce a given outcome, modifying where needed • To recognise tools that enable more than one process to be run at the same time (concurrency) • To create two or more sequences that run at the same time	• To know what an infinite loop does, using it to program and control • To write a program that includes count-controlled loops • To create a condition-controlled loop, and explain it can stop when that condition is met • To use a condition in an 'if… then…' statement to start an action • To use selection to switch the program flow in one of two ways • To use a condition in an 'if…then…else…' statement to produce given outcomes • To create/design a program that uses selection, and evaluate it • To explain how selection is used in programs • To explain how selection directs the flow of a program	• To define a variable as something that is changeable • To explain why a variable is used in a program • To decide where in a program to change a variable • To design a project that builds on a given example, using this to create and evaluate my project • To create a program to run on a controllable device • To explain that selection can control the flow of a program • To update a variable with a user input • To use a conditional statement to compare a variable to a value • To design and develop a program that uses inputs and outputs on a controllable device

Please refer to our PSHE progression overview and scheme of work to see our progression of 'Media Literacy and Digital Resilience'. We ensure we make links to these when teaching these subject areas, and ensure understanding during computing sessions, when appropriate.