Computing
Skills Progression

EYFS
Although Computing/technology is not formally assessed as an early learning goal, Bramley C of E Infant and Nursery School aim for all children to leave Reception able to: • Know how to stay safe online • Successfully navigate a tablet by using touch screen to select an app • Login to a webpage/app

Nursery and Pre-School (Birthe to 5 Matters Range 4 and 5)	Reception (Range 6)
Range 4 • Seeks to acquire basic skills in turning on and operating some digital equipment • Talk about digital and other electric equipment, what it does, what they can do with it and how to use it safely • With adult support, children can use machines like the photocopier to copy their own pictures • Enjoy drawing and writing using touch screen technology with adult support Range 5 • Knows how to operate simple equipment, e.g. turns on CD player, uses remote control, can navigate touch-capable technology with support • Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets • Knows that information can be retrieved from digital devices and the internet • Shows an interest in pieces of digital apparatus they see or that they use with adult supervision • Can talk about their uses of technologies at home and in other environments and begin to understand what they already know about and can do with different technologies • When in the community and on trips to places such as the park, beginning to take photographs and use mobile apps of things that interest them with support, ready to revisit later	• Identifies where the home button is • Is able to open/turn on a device • Can select a required app • Can take a photo using the camera app • Can login using a password and username • Successfully use a touch screen • Begin to talk about what it means to be safe online Range 6 • Completes a simple program on electronic devices • Uses ICT software to interact with age-appropriate computer software • Can create content such as a video recording, stories, and/or draw a picture on screen • Able to create texts in digital format • Develops digital literacy skills by being able to access, understand and interact with a range of technologies • Can use the internet with adult supervision to find and retrieve information of interest to them • Can coordinate actions to use technology, for example, call a telephone number or create a video recording with support • Experiments with clicking on different icons to cause things to happen in a computer program • Beginning to develop an understanding of the different purposes of different technologies • Retrieve content and talk about what they can recall

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• Shows an interest in illustrations and words in digital books • Looks at and enjoys digital books independently • Handles touch screen technology carefully • Beginning to navigate apps and websites on digital media with adult support	• Plays appropriately with a range of programmable toys, as well as equipment involving ICT, such as computers, touchscreen devices and internet-connected toys • Able to type simple text using a keyboard or touchscreen technology
Key Vocabulary iPad, unlock, lock, camera, screen, swipe, home button, app, device, tablet, password, username, online, login, logout	

End of KS1 National Curriculum Expectations
NC1 Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions NC2 Create and debug simple programs NC3 Use logical reasoning to predict the behaviour of simple programs NC4 Use technology purposefully to create, organise, store, manipulate and retrieve digital content NC5 Recognise common uses of information technology beyond school NC6 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

Year 1		
Computer Science	**Information Technology**	**Digital Literacy**
Lego builders NC1 Emphasise the importance of following instructions. Follow and create simple instructions on the computer. Consider how the order of instructions affects the result. **Coding NC1/NC2/NC3** Understand what instructions are. Predict what will happen when instructions are followed. Understand that computer programs work by following instructions called code.	**Grouping and sorting NC1** Sort items using a range of criteria. Sort items on the computer using the 'Grouping' activities in Purple Mash. **Pictograms NC4** Understand that data can be represented in picture format. Contribute to a class pictogram. Use a pictogram to record the results of an experiment.	**Online Safety and exploring Purple Mash NC6** Log in safely and understand why that is important. Create an avatar and to understand what this is and how it is used. Be able to create a picture and add their own name to it. Start to understand the idea of 'ownership' of creative work. Save work to the My Work area and understand that this is private space. Learn how to find saved work in the Online Work area.

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Use code to make a computer program. Understand what objects and actions are. Understand what an event is. Use an event to control an object. Understand what an event is. Begin to understand how code executes when a program is run. Understand what backgrounds and objects are. Understand how to use the scale property. Plan a computer program. Make a computer program.		Learn about what the teacher has access to in Purple Mash. Learn how to see messages left by the teacher on their work. Learn how to search Purple Mash to find resources. Become familiar with the types of resources available in the Topics section. Become more familiar with the icons used in the resources in the Topics section. Start to add pictures and text to work. Explore the Tools area of Purple Mash and to learn about the common icons used in Purple Mash for Save, Print, Open, New. Explore the Games area on Purple Mash. Understand the importance of logging out when they have finished. **Technology outside school NC5** Find and understand examples of where technology is used in the local community Record examples of technology outside school.

Key Vocabulary

Login, password, private, home screen, work area, avatar, icon, typing, saving, log out, alert, notification, communication, device, search, filter, shared folders, filename, topic Area, writing template, textbox, toolbar, menu, think about box, Purple Mash Tools, Button, sort, criteria, describe, more than, less than, equal, groups, activities, data, pictogram, visual, title, collect data, record results, compare, totals, instructions, algorithm, program, machine, computer, recipe, debugging, code, sequence, instructions, algorithm, code, programmer, coding, software, code blocks, object, action, 2Do, command, design View, Code view, debug\ debugging, run, event, click, sound, when clicked, output, execute, background, scale, scene, properties, plan, technology, computer

Year 2		
Computer Science	**Information Technology**	**Digital Literacy**
Coding NC1/NC2/NC3 Understand what an algorithm is.	**Spreadsheets NC4** Add and edit data in a table layout.	**Effective searching NC4/NC5** Understand the terminology associated with the Internet and searching.

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Create a computer program using an algorithm. Create a program using a given design. Understand the collision detection event. Understand that algorithms follow a sequence. Design an algorithm that follows a timed sequence. Understand that different objects have different properties. Understand what different events do in code. Create a program using a given design. Understand the function of buttons in a program. Know what debugging means. Understand the need to test and debug a program repeatedly. Debug simple programs.	Use the data to manually create a block graph.	Gain a better understanding of searching the Internet. Create a leaflet to help someone search for information on the Internet. **Online Safety NC6** Know how to refine searches using the search tool. Know how to share work electronically using the display boards. Use digital technology to share work on Purple Mash to communicate and connect with others locally. Have some knowledge and understanding about sharing more globally on the Internet. Introduce Email as a communication tool using 2Respond simulations. Understand how we talk to others when they are not there in front of us. Open and send simple online communications in the form of email. Understand that information put online leaves a digital footprint or trail. Begin to think critically about the information they leave online. Identify the steps that can be taken to keep personal data and hardware secure
Key Vocabulary Instruction, algorithm, event, object, action, command, scene, background, properties, scale, click events, collision detection, predict, interaction, collision detection event, collision detection action, image, implement, timer, interval, sequence, output, properties, turtle, object, when key event, when swiped event, when clicked event, button, object name, text, bug, debugging, test, search, filter, internet, sharing, display board, email, attachment, reply, personal information, private information, digital footprint, protection, identifying, secure, row, column, cell, toolbox, drag, image value, count tool, speak tool, cut, copy, paste, total, price, coins, equals, addition, equal, tool, data, table, block graph, label, Internet, World Wide Web, network, device, web page, browser, website, domain, web address, URL, search engine, digital footprint		