



Friars Primary School and Nursery – Computing Overview – 2023-24



	Autumn		Spring		Summer	
Year 1	Computing systems and networks – Technology around us	Creating media – Digital painting	Programming A – Moving a robot	Creating media – Digital writing	Data and information – Grouping data	Programming B – Introduction to animation
	Identify technology Identify a computer and its main parts Use a mouse in different ways Use a keyboard to type on a computer Use the keyboard to edit text Create rules for using technology responsibly	Describe what different freehand tools do Use the shape tool and the line tools Make careful choices when painting a digital picture Explain why I chose the tools I used Use a computer on my own to paint a picture Compare painting a picture on a computer and on paper	Explain what a given command will do Act out a given word Combine forwards and backwards commands to make a sequence Combine four direction commands to make sequences Plan a simple program Find more than one solution to a problem	Use a computer to write Add and remove text on a computer Identify that the look of text can be changed on a computer Make careful choices when changing text Explain why I used the tools that I chose Compare typing on a computer to writing on paper	Label objects Identify that objects can be counted Describe objects in different ways Count objects with the same properties Compare groups of objects Answer questions about groups of objects	Choose a command for a given purpose Show that a series of commands can be joined together Identify the effect of changing a value Explain that each sprite has its own instructions Design the parts of a project Use my algorithm to create a program
Year 2	Computing systems and networks – IT around us	Creating media – Digital photography	Programming A – Robot algorithms	Creating media – Making music	Data and information – Pictograms	Programming B – An introduction to quizzes
	Recognise the uses and features of information technology Identify the uses of information technology in the school Identify information technology beyond school Explain how information technology helps us Explain how to use information technology safely Recognise that choices are made when using information technology	Use a digital device to take a photograph Make choices when taking a photograph Describe what makes a good photograph Decide how photographs can be improved Use tools to change an image Recognise that photos can be changed	Describe a series of instructions as a sequence Explain what happens when we change the order of instructions Use logical reasoning to predict the outcome of a program (series of commands) Explain that programming projects can have code and artwork Design an algorithm Create and debug a program that I have written	Say how music can make us feel Identify that there are patterns in music Show how music is made from a series of notes Show how music is made from a series of notes Create music for a purpose Review and refine our computer work	Recognise that we can count and compare objects using tally charts Recognise that objects can be represented as pictures Create a pictogram Select objects by attribute and make comparisons Recognise that people can be described by attributes Explain that we can present information using a computer	Explain that a sequence of commands has a start Explain that a sequence of commands has an outcome Create a program using a given design Change a given design Create a program using my own design Decide how my project can be improved
Year 3	Computing systems and networks – Connecting computers	Creating media – Animation	Programming A – Sequence in music	Creating media – Desktop publishing	Data and information – Branching databases	Programming B – Events and actions
	Explain how digital devices function Identify input and output devices Recognise how digital devices can change the way we work Explain how a computer network can be used to share information Explore how digital devices can be connected Recognise the physical components of a network	Explain that animation is a sequence of drawings or photographs Relate animated movement with a sequence of images Plan an animation Identify the need to work consistently and carefully Review and improve an animation Evaluate the impact of adding other media to an animation	Explore a new programming environment Identify that commands have an outcome Explain that a program has a start Recognise that a sequence of commands can have an order Change the appearance of my project Create a project from a task description	Recognise how text and images convey information Recognise that text and layout can be edited Choose appropriate page settings Add content to a desktop publishing publication Consider how different layouts can suit different purposes Consider the benefits of desktop publishing	Create questions with yes/no answers Identify the object attributes needed to collect relevant data Create a branching database Explain why it is helpful for a database to be well structured Identify objects using a branching database Compare the information shown in a pictogram with a branching database	Explain how a sprite moves in an existing project Create a program to move a sprite in four directions Adapt a program to a new context Develop my program by adding features Identify and fix bugs in a program Design and create a maze-based challenge



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Year 4	Computing systems and networks – The Internet	Creating media – Audio editing	Programming A – Repetition in shapes	Creating media – Photo editing	Data and information – Data logging	Programming B – Repetition in games
	Describe how networks physically connect to other networks Recognise how networked devices make up the internet Outline how websites can be shared via the World Wide Web (WWW) Describe how content can be added and accessed on the World Wide Web (WWW) Recognise how the content of the WWW is created by people Evaluate the consequences of unreliable content	Identify that sound can be digitally recorded Use a digital device to record sound Explain that a digital recording is stored as a file Explain that audio can be changed through editing Show that different types of audio can be combined and played together Evaluate editing choices made	Identify that accuracy in programming is important Create a program in a text-based language Explain what 'repeat' means Modify a count-controlled loop to produce a given outcome Decompose a task into small steps Create a program that uses count-controlled loops to produce a given outcome	Explain that digital images can be changed Change the composition of an image Describe how images can be changed for different uses Make good choices when selecting different tools Recognise that not all images are real Evaluate how changes can improve an image	Explain that data gathered over time can be used to answer questions Use a digital device to collect data automatically Explain that a data logger collects 'data points' from sensors over time Use data collected over a long duration to find information Identify the data needed to answer questions Use collected data to answer questions	Develop the use of count-controlled loops in a different programming environment Explain that in programming there are infinite loops and count controlled loops Develop a design that includes two or more loops which run at the same time Modify an infinite loop in a given program Design a project that includes repetition Create a project that includes repetition questions
Year 5	Computing systems and networks – Sharing information	Creating media – Vector drawing	Programming A – Selection in physical computing	Creating media – Video editing	Data and information – Flat-file databases	Programming B – Selection in quizzes
	Explain that computers can be connected together to form systems Recognise the role of computer systems in our lives Recognise how information is transferred over the internet Explain how sharing information online lets people in different places work together Contribute to a shared project online Evaluate different ways of working together online	Identify that drawing tools can be used to produce different outcomes Create a vector drawing by combining shapes Use tools to achieve a desired effect Recognise that vector drawings consist of layers Group objects to make them easier to work with Evaluate my vector drawing	Control a simple circuit connected to a computer Write a program that includes count-controlled loops Explain that a loop can stop when a condition is met Explain that a loop can be used to repeatedly check whether a condition has been met Design a physical project that includes selection Create a program that controls a physical computing project	Explain what makes a video effective Identify digital devices that can record video Capture video using a range of techniques Create a storyboard Identify that video can be improved through reshooting and editing Consider the impact of the choices made when making and sharing a video	Use a form to record information Compare paper and computer-based databases Outline how grouping and then sorting data allows us to answer questions Explain that tools can be used to select specific data Explain that computer programs can be used to compare data visually Apply my knowledge of a database to ask and answer real-world questions	Explain how selection is used in computer programs Relate that a conditional statement connects a condition to an outcome Explain how selection directs the flow of a program Design a program which uses selection Create a program which uses selection Evaluate my program
Year 6	Computing systems and networks – Communication	Creating media – 3D Modelling	Programming A – Variables in games	Creating media – Web page creation	Data and information – Spreadsheets	Programming B – Sensing
	Identify how to use a search engine Describe how search engines select results Explain how search results are ranked Recognise why the order of results is important, and to whom Recognise how we communicate using technology Evaluate different methods of online communication	Use a computer to create and manipulate 3D digital objects Compare working digitally with 2D and 3D graphics Construct a digital 3D model of a physical object Identify that physical objects can be broken down into a collection of 3D shapes Design a digital model by combining 3D objects Develop and improve a digital 3D model	Define a 'variable' as something that is changeable Explain why a variable is used in a program Choose how to improve a game by using variables Design a project that builds on a given example Use my design to create a project Evaluate my project	Review an existing website and consider its structure Plan the features of a web page Consider the ownership and use of images (copyright) Recognise the need to preview pages Outline the need for a navigation path Recognise the implications of linking to content owned by other people	Identify questions which can be answered using data Explain that objects can be described using data Explain that formulas can be used to produce calculated data Apply formulas to data, including duplicating Create a spreadsheet to plan an event Choose suitable ways to present data	Create a program to run on a controllable device Explain that selection can control the flow of a program Update a variable with a user input Use an conditional statement to compare a variable to a value Design a project that uses inputs and outputs on a controllable device Develop a program to use inputs and outputs on a controllable device