

## EYFS

Despite computing not being explicitly mentioned within the [Early Years Foundation Stage \(EYFS\) statutory framework](#), which focuses on the learning and development of children from birth to age five, there are many opportunities for young children to use technology to solve problems and produce creative outcomes.

As young children take part in a variety of tasks with digital devices, such as moving a Bee Bot around a classroom, they will already be familiar with the device before being asked to undertake tasks related to the key stage one (KS1 - ages 5 - 7 years) computing curriculum, such as writing and testing a simple program. Not only will children be keen to again use a device they had previously enjoyed using, their cognitive load will also be reduced, meaning they are more likely to succeed when undertaking activities linked to the next stage in their learning.

Within the revised EYFS statutory framework, the Technology strand within Understanding the World has been removed. However, there are opportunities within each area of the framework to enable practitioners to effectively prepare children for studying the computing curriculum.

## Year 1

- To identify technology
- To use a mouse and keyboard in different ways
- To create rules for using technology responsibly
- To describe what different freehand tools do
- To make careful choices when painting a digital picture
- To explain why I chose the tools I used
- To use a computer on my own to paint a picture
- To compare painting a picture on a computer and on paper
- To use a computer to write
- To identify that the look of text can be changed on a computer
- To compare typing on a computer to writing on paper
- To label objects
- To identify that objects can be counted
- To describe objects in different ways
- To explain what a given command will do
- To combine forwards and backwards commands to make a sequence
- To combine four direction commands to make sequences
- To plan a simple program
- To find more than one solution to a problem
- To show that a series of commands can be joined together
- To identify the effect of changing a value
- To explain that each sprite has its own instructions
- To design the parts of a project
- To use my algorithm to create a program

## Year 2

- To recognise the uses and features of information technology
- To explain how information technology helps us
- To explain how to use information technology safely
- To recognise that choices are made when using information technology
- To use a digital device to take a photograph
- To make choices when taking a photograph
- To describe what makes a good photograph
- To recognise that photos can be changed
- To show how music is made from a series of notes
- To create music for a purpose
- To review and refine our computer work
- To recognise that we can count and compare objects using tally charts
- To recognise that objects can be represented as pictures
- To create a pictogram
- To select objects by attribute and make comparisons
- To recognise that people can be described by attributes
- To explain that we can present information using a computer
- To describe a series of instructions as a sequence
- To explain what happens when we change the order of instructions
- To use logical reasoning to predict the outcome of a program (series of commands)
- To explain that programming projects can have code and artwork
- To create and debug a program that I have written
- To explain that a sequence of commands has a start and an outcome
- To create a program using a given design
- To change a given design
- To create and improve a program using my own design

### Year 3

- To explain how digital devices function
- To identify input and output devices
- To recognise how digital devices can change the way we work
- To explain how a computer network can be used to share information
- To explore how digital devices can be connected
- To recognise the physical components of a network
- To explain that animation is a sequence of drawings or photographs
- To relate animated movement with a sequence of images
- To plan an animation
- To identify the need to work consistently and carefully
- To review and improve an animation
- To evaluate the impact of adding other media to an animation
- To explore a new programming environment
- To identify that commands have an outcome
- To explain that a program has a start
- To recognise that a sequence of commands can have an order
- To change the appearance of my project
- To create a project from a task description
- To create questions with yes/no answers
- To identify the object attributes needed to collect relevant data
- To create a branching database
- To explain why it is helpful for a database to be well structured
- To identify objects using a branching database
- To compare the information shown in a pictogram with a branching database
- To recognise how text and images convey information
- To recognise that text and layout can be edited
- To choose appropriate page settings
- To add content to a desktop publishing publication
- To consider how different layouts can suit different purposes
- To consider the benefits of desktop publishing
- To explain how a sprite moves in an existing project
- To create a program to move a sprite in four directions
- To adapt a program to a new context
- To develop my program by adding features
- To identify and fix bugs in a program
- To design and create a maze-based challenge

## Do everything in love



1 Corinthians 16:14

Learning to Love, Loving to Learn

## St Mary's CE Primary School

# Computing End Points

### Year 4

- To describe how networks physically connect to other networks
- To recognise how networked devices make up the internet
- To outline how websites can be shared via the World Wide Web
- To describe how content can be added and accessed on the World Wide Web (WWW)
- To evaluate the consequences of unreliable content
- To identify that sound can be digitally recorded
- To use a digital device to record sound
- To explain that a digital recording is stored as a file
- To explain that audio can be changed through editing
- To show that different types of audio can be combined and played together
- To evaluate editing choices made
- To identify that accuracy in programming is important
- To create a program in a text-based language
- To explain what 'repeat' means
- To modify a count-controlled loop to produce a given outcome
- To decompose a task into small steps
- To create a program that uses count-controlled loops to produce a given outcome
- To explain that data gathered over time can be used to answer questions
- To use a digital device to collect data automatically
- To explain that a data logger collects 'data points' from sensors over time
- To use data collected over a long duration to find information
- To identify the data needed to answer questions
- To use collected data to answer questions
- To explain that digital images can be changed
- To change the composition of an image
- To make good choices when selecting different tools
- To recognise that not all images are real
- To evaluate how changes can improve an image
- To develop the use of count-controlled loops in a different programming environment
- To develop a design that includes two or more loops which run at the same time
- To modify an infinite loop in a given program
- To design and create a project that includes repetition

### Year 5

- 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
- To evaluate different ways of working together online
- To explain what makes a video effective
- To capture video using a range of techniques
- To create a storyboard
- To identify that video can be improved through reshooting and editing
- To consider the impact of the choices made when making and sharing a video
- To control a simple circuit connected to a computer
- To write a program that includes count-controlled loops
- To explain that a loop can stop when a condition is met
- To explain that a loop can be used to repeatedly check whether a condition has been met
- To design a physical project that includes selection
- To create a program that controls a physical computing project
- To use a form to record information
- To compare paper and computer-based databases
- To outline how grouping and then sorting data allows us to answer questions
- To explain that tools can be used to select specific data
- To explain that computer programs can be used to compare data visually
- To apply my knowledge of a database to ask and answer real-world questions
- To identify that drawing tools can be used to produce different outcomes
- To create a vector drawing by combining shapes
- To use tools to achieve a desired effect
- To recognise that vector drawings consist of layers
- To group objects to make them easier to work with
- To evaluate my vector drawing
- To explain how selection is used in computer programs
- To relate that a conditional statement connects a condition to an outcome
- To explain how selection directs the flow of a program
- To design, create and evaluate a program which uses selection

### Year 6

- To describe how and why search engines select and rank results
- To recognise and evaluate how we communicate using technology
- To review an existing website and consider its structure
- To plan the features of a web page
- To consider the ownership and use of images (copyright)
- To recognise the need to preview pages
- To outline the need for a navigation path
- To recognise the implications of linking to content owned by other people
- To define a 'variable' as something that is changeable
- To explain why a variable is used in a program
- To choose how to improve a game by using variables
- To design, create and evaluate a project that builds on a given example
- To identify questions which can be answered using data
- To explain that objects can be described using data
- To explain that formulas can be used to produce calculated data
- To apply formulas to data, including duplicating
- To create a spreadsheet to plan an event
- To choose suitable ways to present data
- To use a computer to create and manipulate three-dimensional (3D) digital objects
- To compare working digitally with 2D and 3D graphics
- To construct a digital 3D model of a physical object
- To identify that physical objects can be broken down into a collection of 3D shapes
- To design, develop and improve a digital model by combining 3D objects
- 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 a project that uses inputs and outputs on a controllable device
- To develop a program to use inputs and outputs on a controllable device