



# Computing Curriculum Overview

## Silverdale St John's CE Primary School



2023/2024 2025/2026	Autumn - How Does It Work?	Spring - Watery Worlds	Summer - The Great Outdoors
Curlews Year R/1	Online Safety Unit 1.1 Coding Unit 1.7	Maze Explorers 1.5 Animated Story Books 1.6 Technology Outside School 1.9	Grouping and Sorting 1.2 Pictograms 1.3 Lego Builders 1.4 Spreadsheets 1.8
Bitterns Year 2/3	Online Safety 2.2+3.2 Coding 2.1	Creating Pictures 2.6 Simulations 3.7 Touch Typing 3.4	Presenting Ideas 2.8 Presenting 3.9
Harriers Year 4/5/6	Year 4 – 4.5 LOGO Year 5 – 5.5 Game Creator Year 6 – 6.5 Text adventures	Year 4 – 4.6 Animation Year 5 – 5.6 3D modelling Year 6 – 6.6 Networks	Year 4 – 4.7 effective searching Year 5 – Concept maps Year 6 6.7 Quizzes
2022/2023 2024/2025	Autumn - Happy, Healthy Me!	Spring - Time Travel	Summer - Here, There & Everywhere
Curlews Year R/1	Online Safety Unit 1.1 Coding Unit 1.7	1 Maze Explorers 1.5 Animated Story Books 1.6 Technology Outside School 1.9	Grouping and Sorting 1.2 Pictograms 1.3 Lego Builders 1.4 Spreadsheets 1.8
Bitterns Year 2/3	Online Safety 2.2+3.2 Coding 3.1	Effective Searching 2.5 Email 3.5	Questioning 2.4 Branching Databases 3.6 Graphing 3.8
Harriers Year 4/5/6	Year 4 hardware investigators Year 5 word processing	Year 4 – 4.3 spreadsheets Year 6 6.5 Text adventure	Year 4 4.4 Writing for Different Audiences Year 6 Unit 6.4 – Blogging

# Computing - Year A

2023/2024 2025/2026	Autumn - How Does It Work?	Spring - Watery Worlds	Summer - The Great Outdoors
<b>Curlews Year R/1</b>	<b>Curlews class is mixed EY/ Y1 children will access NC computing in Y1 EY children will become familiar with how to use computers and Purple mash alongside Year1 but will not be expected to reach these outcomes until their following year. Curlews are not on an annual rolling program rather than two year like the other classes for this reason</b>		
<b>NC Links</b>	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. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions	Use technology purposefully to create, organise, store, manipulate and retrieve digital content. create and debug simple programs Use logical reasoning to predict the behaviour of simple programs recognise common uses of information technology beyond school	create and debug simple programs use logical reasoning to predict the behaviour of simple programs use technology purposefully to create, organise, store, manipulate and retrieve digital content
<b>Topic outcomes</b>	Online Safety Unit 1.1 To log in safely. To learn how to find saved work in the Online Work area and find teacher comments. To learn how to search Purple Mash to find resources. To become familiar with the icons and types of resources available in the Topics section. To start to add pictures and text to work. To explore the Tools and Games section of Purple Mash. To learn how to open, save and print. To understand the importance of logging out. Coding Unit 1.7 To use code to make a computer program. To understand what object and actions are. To understand what an event is. * To use an event to control an object. To begin to understand how code executes when a program is run. To understand what backgrounds and objects are. To plan and make a computer program	Maze Explorers 1.5 To understand the functionality of the direction keys. To understand how to create and debug a set of instructions (algorithm). To use the additional direction keys as part of an algorithm. To understand how to change and extend the algorithm list. To create a longer algorithm for an activity. To set challenges for peers. To access peer challenges set by the teacher as 2Dos. Animated Story Books 1.6 To introduce e-books and the 2Create a Story tool. To add animation to a story. To add sound to a story, including voice recording and music the children have composed. To work on a more complex story, including adding backgrounds and copying and pasting pages. To share e-books on a class display board Technology Outside School 1.9 To walk around the local community and find examples of where technology is used. To record examples of technology outside school.	Grouping and Sorting 1.2 To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash. Pictograms 1.3 To understand that data can be represented in picture format. To contribute to a class pictogram. To use a pictogram to record the results of an experiment. Lego Builders 1.4 To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. To follow and create simple instructions on the computer. To consider how the order of instructions affects the result. Spreadsheets 1.8 To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash. To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count.
<b>Bitterns Year 2/3</b>	<b>Online Safety 2.2+3.2 Coding 2.1</b>	<b>Creating Pictures 2.6 Simulations 3.7 Touch Typing 3.4</b>	<b>Presenting Ideas 2.8 Presenting 3.9</b>
<b>NC Links</b>	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
<b>Topic outcomes</b>	To know what makes a safe password. To learn methods for keeping passwords safe. To understand how the Internet can be used in effective communication. To understand how a blog can be used to communicate with a wider audience. To consider the truth of the content of websites. To learn about the meaning of age restrictions symbols on digital media and devices. To understand what an algorithm is. * To create a computer program using an algorithm. * To create a program using a given design. * To understand the collision detection event. * To understand that algorithms follow a sequence. * To design an algorithm that follows a timed sequence. * To understand that different objects have different properties. To understand what different events do in code. To create a program using a given design. To understand the function of buttons in a program. To know what debugging means. To understand the need to test and debug a program repeatedly.	To learn the functions of the 2Paint a Picture tool. To learn about and recreate the Impressionist style of art (Monet, Degas, Renoir). To recreate Pointillist art and look at the work of pointillist artists such as Seurat. To learn about the work of Piet Mondrian and recreate the style using the lines template. To learn about the work of William Morris and recreate the style using the patterns template. To explore surrealism and eCollage. To consider what simulations are. To explore a simulation. To analyse and evaluate a simulation To introduce typing terminology. To understand the correct way to sit at the keyboard. To learn how to use the home, top and bottom row keys. To practise typing with the left and right hand.	To explore how a story can be presented in different ways. To make a quiz about a story or class topic. To make a fact file on a non-fiction topic. To make a presentation to the class To understand the purpose of the Slides tool. To add slides to presentations. To add media to presentations. To format text appropriately. To add shapes and lines to enhance a presentation. To use the skills learnt to design and create an engaging presentation
<b>Harriers Year 4/5/6</b>	<b>Year 4 – 4.5 LOGO Year 5 – 5.5 Game Creator Year 6 – 6.5 Text adventures</b>	<b>Year 4 – 4.6 Animation Year 5 – 5.6 3D modelling Year 6 –6.6 Networks</b>	<b>Year 4 – 4.7 effective searching Year 5 – Concept maps Year 6 6.7 Quizzes</b>
<b>NC Links</b>	<ul style="list-style-type: none"> <li>▪ Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</li> <li>▪ Use sequence, selection, and repetition in programs; work with variables and various forms of input and output.</li> <li>▪ Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Select, use and combine a variety of software including analysing, evaluating and presenting data and information</li> </ul>	<ul style="list-style-type: none"> <li>▪ use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content</li> </ul>
<b>Topic outcomes</b>	To learn the structure of the language of 2Logo. * To input simple instructions in 2Logo * To use 2Logo to create letter shapes. * To use the Repeat command in 2Logo to create shapes. * To use and build procedures in 2Logo. To introduce the 2DIY 3D tool. * To begin planning a game. * To design the game environment. * To design the game quest to make it a playable game. * To finish and share the game. To self- and peer evaluate.  To find out what a text-based adventure game is and to explore an example made in 2Create a Story. * To use 2Connect to plan a 'Choose your own Adventure' type story. * To use 2Connect plans for a story adventure to make the adventure using 2Create a Story. * To introduce an alternative model for a text adventure which has a less sequential narrative. * To use written plans to code a map-based adventure in 2Code.	To decide what makes a good, animated film or cartoon and discuss favourite animations. * To learn how animations are created by hand. * To find out how 2Animate animations can be created in a similar way using technology. * To learn about onion skinning in animation. * To add backgrounds and sounds to animations. * To share animation the class blog.  To be introduced to the 2Design and Make tool. * To explore the effect of moving points when designing. * To design a 3D model to fit certain criteria. To discover what the children know about the Internet. * To find out what a LAN and WAN are. * To find out how we access the internet in school. To research and find out about the age of the internet. * To think about what the future might hold.	To locate information on the search results page. * To use search effectively to find out information. * To assess whether an information source is true and reliable. * To understand the need for visual representation when generating and discussing complex ideas. * To understand the uses of a 'concept map'. To understand and use the correct vocabulary when creating a concept map. * To create a concept map. * To understand how a concept map can be used to retell stories and information. * To create a collaborative concept map and present this to an audience. To create a picture-based quiz for young children. * To learn how to use the question types within 2Quiz. * To explore the grammar quizzes.. * To make a quiz that requires the player to search a database.

# Computing - Year B



2022/2023 2024/2025	Autumn Happy, Healthy Me!	Spring Time Travel	Summer Here, There and Everywhere
<b>Curlews Year R/1</b>	Curlews class is mixed EY/ Y1 children will access NC computing in Y1 EY children will become familiar with how to use computers and Purple mash alongside Year1 but will not be expected to reach these outcomes until their following year. Curlews are not on an annual rolling program rather than two year like the other classes for this reason		
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<b>Topic outcomes</b>	<u>Online Safety Unit 1.1</u> To log in safely. To learn how to find saved work in the Online Work area and find teacher comments. To learn how to search Purple Mash to find resources. To become familiar with the icons and types of resources available in the Topics section. To start to add pictures and text to work. To explore the Tools and Games section of Purple Mash. To learn how to open, save and print. To understand the importance of logging out. <u>Coding Unit 1.7</u> To use code to make a computer program. To understand what object and actions are. To understand what an event is. * To use an event to control an object. To begin to understand how code executes when a program is run. To understand what backgrounds and objects are. To plan and make a computer program	<u>Maze Explorers 1.5</u> To understand the functionality of the direction keys. To understand how to create and debug a set of instructions (algorithm). To use the additional direction keys as part of an algorithm. To understand how to change and extend the algorithm list. To create a longer algorithm for an activity. To set challenges for peers. To access peer challenges set by the teacher as 2Dos. <u>Animated Story Books 1.6</u> To introduce e-books and the 2Create a Story tool. To add animation to a story. To add sound to a story, including voice recording and music the children have composed. To work on a more complex story, including adding backgrounds and copying and pasting pages. To share e-books on a class display board <u>Technology Outside School 1.9</u> To walk around the local community and find examples of where technology is used. To record examples of technology outside school.	<u>Grouping and Sorting 1.2</u> To sort items using a range of criteria. To sort items on the computer using the 'Grouping' activities in Purple Mash. <u>Pictograms 1.3</u> To understand that data can be represented in picture format. To contribute to a class pictogram. To use a pictogram to record the results of an experiment. <u>Lego Builders 1.4</u> To compare the effects of adhering strictly to instructions to completing tasks without complete instructions. To follow and create simple instructions on the computer. To consider how the order of instructions affects the result. <u>Spreadsheets 1.8</u> To know what a spreadsheet program looks like. To locate 2Calculate in Purple Mash. To enter data into spreadsheet cells. To use 2Calculate image tools to add clipart to cells. To use 2Calculate control tools: lock, move cell, speak and count.
<b>Bitterns Year 2/3</b>	<b>Online Safety 2.2+3.2 Coding 3.1</b>	<b>Effective Searching 2.5 Email 3.5</b>	<b>Questioning 2.4 Branching Databases 3.6 Graphing 3.8</b>
<b>NC Links</b>	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information
<b>Topic outcomes</b>	To know what makes a safe password. To learn methods for keeping passwords safe. To understand how the Internet can be used in effective communication. To understand how a blog can be used to communicate with a wider audience. To consider the truth of the content of websites. To learn about the meaning of age restrictions symbols on digital media and devices. To review previous coding knowledge. * To understand what a flowchart is and how flowcharts are used in computer programming. * To understand that there are different types of timers. * To be able to select the right type of timer for a purpose. * To understand how to use the repeat command. * To use coding knowledge to create a range of programs. * To understand the importance of nesting. * To design and create an interactive scene.	To understand the terminology associated with searching. To gain a better understanding of searching on the Internet. To create a leaflet to help someone search for information on the Internet To think about different methods of communication. To open and respond to an email using an address book. To learn how to use email safely. To add an attachment to an email. To explore a simulated email scenario	To learn about data handling tools that can give more information than pictograms. To use yes/no questions to separate information. To construct a binary tree to identify items. To use 2Question (a binary tree database) to answer questions. To use a database to answer more complex search questions. To use the Search tool to find information. To sort objects using just 'yes' or 'no' questions. To complete a branching database using 2Question. To create a branching database of the children's choice To enter data into a graph and answer questions. To solve an investigation and present the results in graphic form.
<b>Harriers Year 4/5/6</b>	<b>Year 4 hardware investigators Year 5 word processing</b>	<b>Year 4 – 4.3 spreadsheets Year 6 6.5 Text adventure</b>	<b>Year 4 4.4 Writing for Different Audiences Year 6 Unit 6.4 – Blogging</b>
<b>NC Links</b>	understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts use sequence, selection, and repetition in programs; work with variables and various forms of input and output	Select, use and combine a variety of software on a range of digital devices to design a range of programs, systems and content that accomplish specific goals
<b>Topic outcomes</b>	To understand the different parts that make up a desktop computer. * To recall the different parts that make up a computer. To know what a word processing tool is for. * To add and edit images to a word document. * To know how to use word wrap with images and text. * To change the look of text within a document. To add features to a document to enhance its look and usability. * To use tables within MS Word to present information	* To explore how the numbers entered into cells can be set to either currency or decimal. * To explore the use of the display of decimal places. * To find out how to add formulae to a cell. * To explore how tools can be combined to use 2Calculate to make number games. * To explore the use of the timer, random number and spin button tools. * To use the line graphing tool in 2Calculate with appropriate data. * To interpret a line graph to estimate values between data readings. * To use the currency formatting tool in 2Calculate. * To use 2Calculate to create a model of a real-life situation. * To use the functions of allocating value to images in 2Calculate to make a resource to teach place value. To find out what a text-based adventure game is and to explore an example made in * To use 2Connect to plan a 'Choose your own Adventure' type story. * To use 2Connect plans for a story adventure to make the adventure using 2Create a Story. * To introduce an alternative model for a text adventure which has a less sequential narrative. * To use written plans to code a map-based adventure in 2Code.	* To explore how font size and style can affect the impact of a text. Report * To use a simulated scenario to produce a news report. Campaign. * To use a simulated scenario to write for a community campaign. * To identify the purpose of writing a blog. * To identify the features of successful blog writing. * To plan the theme and content for a blog. * To understand how to write a blog and a blog post. * To consider the effect upon the audience of changing the visual properties of the blog. * To understand how to contribute to an existing blog. * To understand the importance of commenting on blogs. * To peer-assess blogs against the agreed success criteria. * To understand how and why blog posts and comments are approved by the teacher.