



## Computing Curriculum Overview based on Purple Mash scheme

*Through the study of computing including internet safety, St. Mary's children will develop an understanding of digital literacy, information technology and computer sciences. Children will become confident and competent with programming; will know how to use technology safely, including all mobile devices, and will be able to report unsafe activity or content appropriately including through CEOP.*

| Internet Safety | Every half term begins with a review of Internet Safety   |   |   |   |   |  |
|-----------------|---|---|---|---|---|--|
| EYFS - R        | Knowledge and Understanding Technology – Units accessible to the EYFS are as follows but are taught discretely throughout the year rather than in set term format   |   |   |   |   |  |
|                 | Online Safety Communication and Language<br>Remember rules without needing an adult to remind them.<br><br>Develop speaking and listening skills by engaging in role play activities, along with building confidence. | Expressive Arts<br>Explore, use and refine a variety of artistic effects to express their ideas and feelings.<br><br>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function | Maths<br>Develop understanding of number to 10 through completing a series of interactive tasks and activities.<br><br>Explore and represent patterns within numbers up to 10 by completing online quizzes and games in Maths City. | Physical Development<br>Match their developing physical skills to tasks and activities in the setting.<br><br>Develop their small motor skills so that they can use a range of tools competently, safely and confidently. | PSED<br>Show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time'<br><br>Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly. | Understanding the world<br>Explore how things work and identify the difference between past and present.<br><br>Be able to explain some similarities and differences between life in this country and life in other countries. |
|                 | Autumn 1  | Autumn 2  | Spring 1  | Spring 2  | Summer 1  | Summer 2   |
| Year 1          | Online Safety & Exploring Purple Mash 4<br>(Understand the importance of keeping information, such as their usernames and passwords, private) Unit 1.1  | Grouping & Sorting 2<br>(Sort items using a range of criteria)<br>Unit 1.2  | Lego Builders 3<br>(Follow and create simple instructions)<br>Unit 1.4  | Animated Story Books 5<br>(Create e-book using animation and sound)<br>Unit 1.6   | Coding 6<br>(Plan and make a computer program)<br>Unit 1.7  | Spreadsheets 3<br>(Use 2Calculate image tools to add clipart to cells)<br>Unit 1.8   |
|                 |   | Pictograms 3<br>(Create pictogram and record results of an experiment)<br>Unit 1.3  | Maze Explorers 3<br>(Create and debug a set of instructions)<br>Unit 1.5  |   |   | Technology outside school 2<br>(recognise uses of IT beyond school)<br>Unit 1.9  |
| Year 2          | Online Safety 3<br>(Understand how we should talk to others in an online situation)<br>Unit 2.2   | Coding 6<br>(Design an algorithm that follows a timed sequence)<br>Unit 2.1   | Questioning 5<br>(Construct a binary tree to sort information)<br>Unit 2.4  | Creating Pictures 5<br>(Recreate different styles of art from famous artists)<br>Unit 2.6   | Spreadsheets 4<br>(Use 2Calculate to collect data and produce a graph)<br>Unit 2.3  | Making Music 3<br>(Make music digitally and edit composed music)<br>Unit 2.7   |
|                 | Effective Searching 3<br>(Understand how to search information using the internet)<br>Unit 2.5  |   |   |   |   | Presenting Ideas 3<br>(Create quiz and fact file to present information)<br>Unit 2.8   |
| Year 3          | Online Safety 3<br>(Understand the meaning of age restrictions symbols on digital media and devices)<br>Unit 3.2  | Coding 6<br>Unit 3.1<br>(Understand how to use the repeat command)  | Touch Typing 4<br>(Understand layout of keyboard and practise typing with left and right hand)<br>Unit 3.4  | Email (including email safety) 6<br>(Compose and respond to emails safely)<br>Unit 3.5  | Simulations 3<br>(Explore and evaluate a simulation)<br>Unit 3.7  | Presenting 6<br>(Add media and animations to a presentation)<br>Unit 3.9   |
|                 | Spreadsheets 3<br>Unit 3.3<br>(Use the symbols more than, less than and equal to, to compare values)  |   | Branching Databases 4<br>(Classify groups of objects by creating a branching database)<br>Unit 3.6  |   |   | Graphing 3<br>(Enter data into a graph and answer questions)<br>Unit 3.8   |
| Year 4          | Online Safety 4<br>(Understand that information put online leaves a digital footprint or trail)<br>Unit 4.2   | Spreadsheets 4<br>(Use the formula wizard to calculate averages)<br>Unit 4.3  | Writing for Different Audiences 2<br>(Produce a news report using a simulated scenario)<br>Unit 4.4   | Coding 6<br>(Use co-ordinates in computer programming)<br>Unit 4.1  | Animation 3<br>(Create an animation using a computer)<br>Unit 4.6   | Making Music 4<br>(Experiment with rhythm and tempo and create a melodic phrase)<br>Unit 4.9   |
|                 | Spreadsheets 2<br>(Use the formula wizard to calculate averages)<br>Unit 4.3  | Writing for Different Audiences 3<br>(Use a simulated scenario to produce a news report)<br>Unit 4.4  | Logo 4<br>(Input simple instructions in Logo)<br>Unit 4.5   |   |   | Effective Searching 3<br>(Use search effectively to find out information)<br>Unit 4.7  |
| Year 5          | Online Safety 3<br>(Be aware of appropriate/ inappropriate text, photographs and videos and the impact of sharing these online)<br>Unit 5.2   | Spreadsheets 2<br>(Use formulae to calculate area and perimeter of shapes.)<br>Unit 5.3   | Coding 6<br>(Understand how functions work in code)<br>Unit 5.1   | 3D Modelling 4<br>(Design a 3D Model to fit certain criteria)<br>Unit 5.6   | Game Creator 5<br>(Plan, design and create a game)<br>Unit 5.5  | Word Processing 6<br>(Add features to a document to enhance its look and usability)<br>Unit 5.8  |
|                 | Spreadsheets 3<br>(Use formulae to calculate area and perimeter of shapes.)<br>Unit 5.3   | Databases 4<br>(Learn how to search for information in a database)<br>Unit 5.4  |   |   |   |  |
| Year 6          | Online Safety 2<br>(Identify the positive and negative influences of technology on health and the environment)<br>Unit 6.2  | Coding 6<br>(Use flowcharts to create and debug code)<br>Unit 6.1   | Spreadsheets 5<br>(Use a spreadsheet to investigate probability and to calculate the discount in a sale)<br>Unit 6.3  | Text Adventures 5<br>(Make a story-based adventure using 2Create a Story)<br>Unit 6.5   | Quizzing 6<br>(Make a quiz that requires the player to search a database)<br>Unit 6.7   | Understanding Binary 4<br>(Understand that binary represents numbers using 1s and 0s and these represent the on and off electrical states respectively in hardware and robotics)<br>Unit 6.8                                   |
|                 | Blogging 4<br>(Understand how to write a blog and a blog post)<br>Unit 6.4  |   | Networks 3<br>(Research and find out about the age of the Internet)<br>Unit 6.6   |   |   |  |

