

**St Mary’s R.C. Primary**





**Computing Progression and End Points**

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**Computing Curriculum Progression and End Points**

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|  | **End of EYFS** | **End of KS1** | **End of Lower KS 2** | **End of Upper KS 2** |
| **To Code** | * To name items we control in the everyday environment * To use every day technology * To explore on screen activities – by clicking (cause and effect) | * To know that an algorithm is a set of instruction that can solve a problem * To create a simple algorithmfor a BeeBot or remote control toy specifying the direction and number of steps * Control motion by specifying the number of steps to travel, direction and turn. * Add text strings, show and hide objects and change the features of an object. * Select sounds and control when they are heard, their duration and volume. * Control when drawings appear and set the pen colour, size and shape. * Specify user inputs (such as clicks) to control events. * Specify the nature of events (such as a single event or a loop). * Create conditions for actions by waiting for a user input (such as responses to questions like: * What is your name?). | * Use specified screen coordinates to control movement. Set the appearance of objects and create sequences of changes. * Create and edit sounds. Control when they are heard, their volume, duration and rests. * Control the shade of pens. * Specify conditions to trigger events. * Use IF THEN conditions to control events or objects. * Create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions). * Use variables to store a value. * Use the functions define, set, change, show and hide to control the variables. * Use the Reporter operators to perform calculations. | * Set IF conditions for movements. Specify types of rotation giving the number of degrees. * Change the position of objects between screen layers (send to back, bring to front). * Upload sounds from a file and edit them. Add effects such as fade in and out and control their implementation. * Combine the use of pens with movement to create interesting effects. * Set events to control other events by ‘broadcasting’ information as a trigger. * Use IF THEN ELSE conditions to control events or objects. * Use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions. * Use lists to create a set of variables. * Use the Boolean operators to define conditions. * Use the Reporter operators to perform calculations. |
| **To Connect** | * To recognise, online or offline, that anyone can say ‘no’ / ‘please stop’ / ‘I’ll tell’ / ‘I’ll ask’ to somebody who makes them feel sad, uncomfortable, embarrassed or upset * To describe ways that some people can be unkind online * To identify rules that help keep us safe and healthy in and beyond the home when using technology * To give some simple examples of these rules | * Participate in class social media accounts. * Understand online risks and the age rules for sites. | * Contribute to blogs that are moderated by teachers. * Gibe examples of the risks posed online communications. * Understand the term ‘copyright’. * Understand that comments made online that are hurtful or offensive are the same as bullying. * Understand how online services work. | * Collaborate with others online on sites approved and moderated by teachers. * Give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems. * Understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder. * Understand the effect of online comments and show responsibility and sensitivity when online * Understand how simple networks are set up and used. | Contribute to blogs that are moderated by teachers.  Gibe examples of the risks posed online communications.  Understand the term ‘copyright’.  Understand that comments made online that are hurtful or offensive are the same as bullying.  Understand how online services work. |
| **To Communicate** | * To identify ways that I can put information on the internet * To identify some simple examples of my personal information (e.g. name, address, birthday, age, location) * To describe who would be trustworthy to share this information with; I can explain why they are trusted * To recognise some ways in which the internet can be used to communicate * To give examples of how I (might) use technology to communicate with people I know | * Use a range of applications and devices in order to communicate ideas, work and messages. | * Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally. | * Choose the most suitable applications and devices for the purposes of communication. * Use many of the advanced features in order to create high quality, professional or efficient communications. |
| **To Collect** | * To talk about how to use the internet as a way of finding information online | * Use simple databases to record information in areas across the curriculum. | * Devise and construct databases using applications designed for this purpose in areas across the curriculum. | * Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner. |

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| **End Points of Learning in the Computing Curriculum** | | |
| **Year 1** | **Year 2** | **Year 3** |
| * Pupils can understand and apply the fundamental principles and concepts of computer science * Pupils can analyse problems in simple computational terms * Pupils can evaluate and apply information technology * Pupils can use computing safely and be aware of some of the related issues * Pupils can use and simply express themselves and develop their ideas through, information and communication technology | * Pupils can understand and apply the fundamental principles and concepts of computer science * Pupils can analyse problems in simple computational terms * Pupils can evaluate and apply information technology * Pupils can use computing safely and be aware of some of the related issues * Pupils can use and simply express themselves and develop their ideas through, information and communication technology | * Pupils can make links to mathematics, science and design & technology through computing * Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation * Pupils are becoming responsible, competent, confident and creative users of information and communication technology * Pupils can use computing safely, respectfully and responsibly * Pupils can analyse, evaluate and present data and information |
| **Year 4** | **Year 5** | **Year 6** |
| * Pupils can make links to mathematics, science and design & technology through computing * Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation * Pupils are becoming responsible, competent, confident and creative users of information and communication technology * Pupils can use computing safely, respectfully and responsibly * Pupils can analyse, evaluate and present data and information | * Pupils can make links to mathematics, science and design & technology through computing * Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation * Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems * Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems * Pupils are becoming responsible, competent, confident and creative users of information and communication technology * Pupils can use computing safely, respectfully and responsibly * Pupils can analyse, evaluate and present data and information | * Pupils can make links to mathematics, science and design & technology through computing * Pupils can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation * Pupils can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems * Pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems * Pupils are becoming responsible, competent, confident and creative users of information and communication technology * Pupils can use computing safely, respectfully and responsibly * Pupils can analyse, evaluate and present data and information |