**CURRICULUM OVERVIEW 2024 – 2025**

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| **YR 7** | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| **Content** | Impact of new technology | Networks from semaphores to the Internet | Using media – Gaining support for a cause | Programming essentials in Scratch – part I | Programming essentials in Scratch – part II | Modelling data – Spreadsheets |
| **Key new knowledge** | - Create a memorable and secure password for an account on the school network  - Remember the rules of the computing lab  - Find personal documents and common applications  - Recognise a respectful email  - Construct an effective email and send it to the correct recipients  - Describe how to communicate with peers online  - Plan effective presentations for a given audience  - Describe cyberbullying  - Explain the effects of cyberbullying  - Plan effective presentations for a given audience  - Describe cyberbullying  - Explain the effects of cyberbullying  - Check who you are talking to online | - Define what a computer network is and explain how data is transmitted between computers across networks  - Define ‘protocol’ and provide examples of non-networking protocols  - List examples of the hardware necessary for connecting devices to networks  - Compare wired to wireless connections and list examples of specific technologies currently used to implement such connections  - Define ‘bandwidth’, using the appropriate units for measuring the rate at which data is transmitted, and discuss familiar examples where bandwidth is important  - Define what the internet is  - Explain how data travels between computers across the internet  - Describe key words such as ‘protocols’, ‘packets’, and ‘addressing’  - Explain the difference between the internet, its services, and the World Wide Web  - Describe how services are provided over the internet  - List some of these services and the context in which they are used  - Explain the term ‘connectivity’ as the capacity for connected devices (‘Internet of Things’) to collect and share information about me with or without my knowledge (including microphones, cameras, and geolocation)  - Describe how internet-connected devices can affect me  - Describe components (servers, browsers, pages, HTTP and HTTPS protocols, etc.) and how they work together | - Select the most appropriate software to use to complete a task  - Identify the key features of a word processor  - Apply the key features of a word processor to format a document  - Evaluate formatting techniques to understand why we format documents  - Select appropriate images for a given context  - Apply appropriate formatting techniques  - Demonstrate an understanding of licensing issues involving online content by applying appropriate Creative Commons licences  - Demonstrate the ability to credit the original source of an image  - Critique digital content for credibility  - Apply techniques in order to identify whether or not a source is credible  - Apply referencing techniques and understand the concept of plagiarism  - Evaluate online sources for use in own work  - Construct a blog using appropriate software  - Organise the content of the blog based on credible sources  - Apply referencing techniques that credit authors appropriately  - Design the layout of the content to make it suitable for the audience  - Construct a blog using appropriate software  - Organise the content of blog based on credible sources  - Apply referencing techniques that credit authors appropriately  - Design the layout of the content to make it suitable for the audience | - Compare how humans and computers understand instructions (understand and carry out)  - Define a sequence as instructions performed in order, with each executed in turn  - Predict the outcome of a simple sequence  - Modify a sequence  - Define a variable as a name that refers to data being stored by the computer  - Recognise that computers follow the control flow of input/process/output  - Predict the outcome of a simple sequence that includes variables  - Trace the values of variables within a sequence  - Make a sequence that includes a variable  - Define a condition as an expression that will be evaluated as either true or  - Identify that selection uses conditions to control the flow of a sequence  - Identify where selection statements can be used in a program  - Modify a program to include selection  - Create conditions that use comparison operators (>,<,=)  - Create conditions that use logic operators (and/or/not)  - Identify where selection statements can be used in a program that include comparison and logical operators  - Define iteration as a group of instructions that are repeatedly executed  - Describe the need for iteration  - Identify where count-controlled iteration can be used in a program  - Implement count-controlled iteration in a program  - Detect and correct errors in a program (debugging)  - Independently design and apply programming constructs to solve a problem (subroutine, selection, count-controlled iteration, operators, and variables) | - Define a subroutine as a group of instructions that will run when called by the main program or other subroutines  - Define decomposition as breaking a problem down into smaller, more manageable subproblems  - Identify how subroutines can be used for decomposition  - Identify where condition-controlled iteration can be used in a program  - Implement condition-controlled iteration in a program  - Evaluate which type of iteration is required in a program  - Define a list as a collection of related elements that are referred to by a single name  - Describe the need for lists  - Identify when lists can be used in a program  - Use a list  - Decompose a larger problem into smaller subproblems  - Apply appropriate constructs to solve a problem  - Decompose a larger problem into smaller subproblems  - Apply appropriate constructs to solve a problem | - Identify columns, rows, cells, and cell references in spreadsheet software  - Use formatting techniques in a spreadsheet  - Use basic formulas with cell references to perform calculations in a spreadsheet (+, -, \*, /)  - Use the autofill tool to replicate cell data  - Explain the difference between data and information  - Explain the difference between primary and secondary sources of data  - Collect data  - Analyse data  - Create appropriate charts in a spreadsheet  - Use the functions SUM, COUNTA, MAX, and MIN in a spreadsheet  - Analyse data  - Use a spreadsheet to sort and filter data  - Use the functions AVERAGE, COUNTIF, and IF in a spreadsheet  - Use conditional formatting in a spreadsheet  - Apply all of the spreadsheet skills covered in this unit |
| **Assessments** | Formative questioning and  teacher observation.  Summative end of unit  assessment. | Formative questioning and  teacher observation.  Summative end of unit  assessment. | Formative questioning and  teacher observation.  Summative end of unit  assessment. | Formative questioning and  teacher observation.  Summative end of unit  assessment. | Formative questioning and  teacher observation.  Summative end of unit  assessment. | Formative questioning and  teacher observation.  Summative end of unit  assessment. |