**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 andteacher observation.Summative end of unitassessment. | Formative questioning andteacher observation.Summative end of unitassessment. | Formative questioning andteacher observation.Summative end of unitassessment. | Formative questioning andteacher observation.Summative end of unitassessment. | Formative questioning andteacher observation.Summative end of unitassessment. | Formative questioning andteacher observation.Summative end of unitassessment. |