**Year 6 Computing Curriculum – Autumn 2**

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| **Theme: Spreadsheets** | | | | | | | | |
| **Curriculum objectives** | | | **Vocabulary** | | | | | **Links across the curriculum** |
| - 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 | | | **Keyword** | Definition | structure | The make up of something | | **[National curriculum maths links](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf)**  **Number – addition, subtraction, multiplication, and division:**   * Solve problems involving addition, subtraction, multiplication, and division   **Statistics:**   * Interpret and construct pie charts and line graphs, and use these to solve problems * Calculate and interpret the mean as an average | |
|  | | | data | Figures and information | order | To group | |  | |
|  | | | value | An amount attributed to something | organise | To group or order | |  | |
|  | | | database | A comprehensive collection of data | selecting | The rationale behind which a decision is made | |  | |
|  | | | cell | Rectangular box where data is entered | chart | The graphical way the data is presented | |  | |
|  | | | formula | Sequence of numbers and letters that allows a calculation to be computed on the user’s behalf |  |  | |  | |
| **Prior Knowledge:**  Year 1 – Grouping Data; Year 2 – Pictograms; Year 3 – Branching Databases; Year 4 – Data Logging; Year 5 – Flat-File Databases | | | | |  | | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | | **Key Skills** | |
| 1 Collecting data | | Learners will collect and organise data in a format of their choice. They will then explore how data can be structured in a table. Finally they will input data into a spreadsheet. | | | | | To create a data set in a spreadsheet   * I can collect data * I can suggest how to structure my data * I can enter data into a spreadsheet | |
| 2 Formatting a spreadsheet | | Learners will develop their understanding of the structure of a spreadsheet. They will be introduced to cell references, data items and the concept of formatting cells. Learners will see data items formatted in different ways, they will then choose formats for data items before applying formats in their own spreadsheet. | | | | | To build a data set in a spreadsheet   * I can explain what an item of data is * I can choose an appropriate format for a cell * I can apply an appropriate format to a cell | |
| 3 What’s the formula? | | Learners will begin to use formulas to produce calculated data. They will understand that the type of data in a cell is important (e.g. numbers can be used in calculations whereas words cannot). Learners will create formulas to use in a spreadsheet using cell references and identify that changing inputs will change the output of the calculation. | | | | | To explain that formulas can be used to produce calculated data   * I can explain which data types can be used in calculations * I can construct a formula in a spreadsheet * I can identify that changing inputs changes outputs | |
| 4 Calculate and duplicate | | Learners will calculate data using the operations of multiplication, subtraction, division, and addition. They will use these operations to create formulas in a spreadsheet. Learners will then begin to understand the importance of creating formulas that include a range of cells and the advantage of duplicating in order to apply formulas to multiple cells. | | | | | To apply formulas to data   * I can calculate data using different operations * I can create a formula which includes a range of cells * I can apply a formula to multiple cells by duplicating it | |
| 5 Event planning | | Learners will plan and calculate the cost of an event using a spreadsheet. They will use a predefined list to choose what they would like to include in their event, and use their spreadsheet to answer questions on the data they have selected. Learners will be reminded of the importance of organising data and will then create a spreadsheet using formulas to work out costs for their event. | | | | | To create a spreadsheet to plan an event   * I can use a spreadsheet to answer questions * I can explain why data should be organised * I can apply a formula to calculate the data I need to answer questions | |
| 6 Presenting data | | Learners will gain skills to create charts in Google Sheets. They will evaluate the results from their charts to answer questions. Finally, learners will show they understand that there are different software tools available within spreadsheet applications to present data. | | | | | To choose suitable ways to present data   * I can produce a chart * I can use a chart to show the answer to a question * I can suggest when to use a table or chart | |
| **Themes and links** | | | | | | | | |
| **Computing themes** | **Where these are covered:** | | | | | | | |
| **Technology around us**  Autumn 1 | * Scratch links to the real world and computer games the children know. | | | | | | | |
| **Digital painting**  Autumn 2 | * Understanding the need for coding and algorithms | | | | | | | |
| **Programming A**  Spring 1 | * Programming the Scratch | | | | | | | |
| **Data /information**  Spring 2 | * Storing the commands and the effect on language on the outcome of your commands. | | | | | | | |
| **Creating media**  Summer 1 | * Your own designs of Scratch | | | | | | | |
| **Programming B**  Summer 2 | * Using Scratch to implement an algorithm as a code | | | | | | | |