**Year 3 Computing Curriculum – Spring 2**

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| **Theme: Branching Databases** | | | | | | | | |
| **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 an create a range of programs, systems and content that accomplished given goals, including collecting, analysing, evaluating and presenting data and information  - Use technology safely, respectfully and responsibly | | | **Keyword** | Definition | structure | The make up of something | | **[National curriculum links](https://www.gov.uk/government/publications/national-curriculum-in-england-computing-programmes-of-study/national-curriculum-in-england-computing-programmes-of-study)**   * 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 * use technology safely, respectfully and responsibly | |
|  | | | attribute | The quality or characteristic of something | 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 | |  | |
|  | | | equal | To be of the exact same value as something |  |  | |  | |
|  | | | separate | To be singular or on one’s own |  |  | |  | |
| **Prior Knowledge:**  Year 1 – Grouping Data; Year 2 - Pictograms | | | | | **Future Knowledge:**  Year 4- Data Logging; Year 5 – Flat-File Databases; Year 6 - Spreadsheets | | | |
| **Lesson Sequence** | | **Key Knowledge** | | | | | **Key Skills** | |
| 1 Yes or no questions | | Learners will start to explore questions with yes/no answers, and how these can be used to identify and compare objects. They will create their own yes/no questions, before using these to split a collection of objects into groups. | | | | | To create questions with yes/no answers   * I can investigate questions with yes/no answers * I can make up a yes/no question about a collection of objects * I can create two groups of objects separated by one attribute | |
| 2 Making groups | | Learners will develop their understanding of using questions with yes/no answers to group objects more than once. They will learn how to arrange objects into a tree structure and will continue to think about which attributes the questions are related to. | | | | | To identify the attributes needed to collect data about an object   * I can select an attribute to separate objects into groups * I can create a group of objects within an existing group * I can arrange objects into a tree structure | |
| 3 Creating a branching database | | Learners will continue to develop their understanding of ordering objects/images in a branching database structure. They will learn how to use an online database tool to arrange objects into a branching database, and will create their own questions with yes/no answers. Learners will show that their branching database works through testing. | | | | | To create a branching database   * I can select objects to arrange in a branching database * I can group objects using my own yes/no questions * I can test my branching database to see if it works | |
| 4 Structuring a branching database | | Learners will continue to develop their understanding of how to create a well-structured database. They will use attributes to create questions with yes/no answers, and will apply these to given objects. Learners will compare the efficiency of different branching databases, and will be able to explain why questions need to be in a specific order. | | | | | To explain why it is helpful for a database to be well structured   * I can create yes/no questions using given attributes * I can compare two branching database structures * I can explain that questions need to be ordered carefully to split objects into similarly sized groups | |
| 5 Planning a branching database | | Learners will independently plan a branching database by creating a physical representation of one that will identify different types of dinosaur. They will continue to think about the attributes of objects to write questions with yes/no answers, which will enable them to separate a group of objects effectively. Learners will then arrange the questions and objects into a tree structure, before testing the structure. | | | | | To plan the structure of a branching database   * I can independently create questions to use in a branching database * I can create questions that will enable objects to be uniquely identified * I can create a physical version of a branching database | |
| 6 Making a dinosaur identifier | | Learners will independently create a branching database to identify different types of dinosaur, based on the paper-based version that they created in Lesson 5. They will then work with a partner to test that their database works, before considering real-world applications for branching databases. | | | | | To independently create an identification tool   * I can create a branching database that reflects my plan * I can work with a partner to test my identification tool * I can suggest real-world uses for branching databases | |
| **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 | | | | | | | |