



Purple Mash Computing Scheme

Branching Databases

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Overview

This unit allows children to explore and create branching databases. They learn how binary questioning is used to sort data records and about the importance of testing and debugging databases that they create.

Key Learning

- To understand the concept of using 'Yes' or 'No' questions to sort objects.
- To understand and use a branching database effectively.
- To plan and create a branching database.
- To test and debug branching databases to correct errors.

Knowledge Organiser and Learning Mat

These resources can be used to support learning across the unit.

- [Knowledge Organiser](#)
- [Learning Mat](#)

Concept Map and Quiz

Use these resources to gauge children's understanding before or after the unit has been taught.

- [Concept Map](#)
- [Quiz](#)

Lesson 1: Yes or No?

Aim

- To understand the concept of using 'Yes' or 'No' questions to sort objects.

Success Criteria

- I can ask and answer 'Yes' or 'No' questions.
- I can use 'Yes' or 'No' questions to split a group into two sets.
- I can explain how a question helps sort items.

Preparation

- Print out and cut up the **pictures of fruits** – enough for one between two.
- (Optional Extension) Print out and cut up **pictures of musical instruments** – enough for one between two.

Please find all lesson resources below.

Resources

- [Slideshow - Lesson 1](#)
- [Guess the Fruit](#)
- [Extension - Musical Instruments](#)

Lesson 2: Understanding Branching Databases

Aim

- To understand and use a branching database effectively.

Success Criteria

- I can understand how a branching database works.
- I can complete a branching database by adding questions.
- I can check if the database gives correct answers.

Preparation

- Set **Guess the Fruit Branching Database** as a 2Do.
- Set **Animal Records** as a 2Do.

Please find all lesson resources below.

Resources

- [Slideshow - Lesson 2](#)
- [Guess the Fruit Branching Database](#)
- [Animal Records](#)

Lesson 3: Creating a Branching Database

Aim

- To plan and create a branching database.

Success Criteria

- I can choose a suitable topic and images.
- I can create a branching database with yes/no questions.
- I can sort records correctly.

Preparation

- Set **2Question** as a 2Do.

Please find all lesson resources below.

Resources

- [Slideshow - Lesson 3](#)
- [2Question](#)

Lesson 4: Debugging a Branching Database

Aim

- To test and debug branching databases to correct errors.

Success Criteria

- I can recognise different errors that could be present in a branching database.
- I can find and fix errors in a branching database.

Preparation

- Print off **Branching Database Help Desk** - one per child or pair.
- Print off **Help Desk - Bigger Images** if required.
- Set **Help Desk - Query 001** as a 2Do.
- Set **Help Desk - Query 002** as a 2Do.
- Set **Help Desk - Query 003** as a 2Do.
- (Optional Extension) Set **The Big Fix - 3D Shapes** as a 2Do.

Please find all lesson resources below.

Resources

- [Slideshow - Lesson 4](#)
- [Branching Database Help Desk](#)
- [Help Desk - Bigger Images](#)
- [Help Desk - Query 001](#)
- [Help Desk - Query 002](#)
- [Help Desk - Query 003](#)
- [The Big Fix - 3D Shapes](#)

Assessment

The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

Emerging

- Children are developing their understanding of data and how it can be grouped using simple yes or no questions. They are beginning to recognise that data can be sorted and that questions can help to classify information. With guidance, children can ask and respond to binary questions and take part in group activities that involve sorting objects. They show awareness that branching databases help us to identify items and are beginning to understand that records are collections of related data. Children may need support to create a basic branching database or to spot errors in a completed one, but they show curiosity and enthusiasm for using digital tools to organise information.

Expected

- Children understand what a branching database is and how it works. They can use yes or no questions to sort a group of objects and are able to explain why binary choice questions are effective. When creating a branching database, they can independently plan a topic, select or add records, and use suitable questions that split items into logical groups. They are able to check their own work using play mode and can identify and correct simple errors in sorting or structure. Children use key vocabulary such as data, record, and binary choice accurately and show a secure understanding of how databases help us find and organise information quickly and clearly.

Exceeding

- Children show a deep understanding of branching databases and how to use them effectively. They generate high-quality yes or no questions that efficiently split records into balanced groups and demonstrate strong planning when selecting suitable topics and images. Their branching databases include extra records beyond the expected number, with logical structure and clear navigation. When testing, they critically evaluate their own and others' work, confidently identifying and correcting errors in questioning, sorting, and layout. Children apply vocabulary precisely and can explain the purpose of branching databases in real-world contexts.