



Word Aware

Anchor:

Questions
Objects
Equal
Compare
Order

Goldilocks:

Value
Table
Even
Separate
Structure
Organise

Step On:

Attribute
Branching Database
Selecting
Information
Decision Tree

Previous knowledge

Data can be numbers, words or figures. Information is what we can understand from looking at data. Data about different groups can be recorded and presented by using pictograms, tally charts and block charts. This data can answer questions and solve problems.

Computing Knowledge Organiser Year 3: Data and Information: Branching Databases

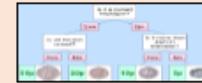
Branching Databases

Data is raw numbers and figures. Information is what we can understand from looking at data. Objects can be organised into groups, based on what they are or their different attributes. Branching databases can help us to identify objects within sets of data. They are useful when we want to classify objects (consider objects within a certain group).

Key Knowledge – What I need to know

Branching Databases

Branching Databases: A branching database (sometimes known as a binary tree) is a way of classifying a group of objects. If it has been designed correctly, a branching database can be used to help someone identify one of the objects.



Creating Branching Databases: Programs such as j2data can help you to create branching databases. Firstly, you need to select which objects you would like to use in your database. You can then type in 'yes' or 'no' questions to sort your objects. Add as many questions as needed until all of the objects are sorted individually. It is a good idea to have a similar number of objects in each group

Structuring Branching Databases

Remember that for your branching database to be effective, the strength of the questions that you ask is hugely important. Your questions need to separate different objects based on their attributes. E.g. the question 'does it have stripes?' would separate the animals below. You should also carefully consider the order that you ask questions.

Presenting Information

Both pictograms and branching databases can be used in order to answer questions and solve problems. You should know which is best to use in different situations. E.g. a pictogram is best to show the favourite colours of children in the class, whilst branching diagrams are best to identify different types of minibeasts.

Grouping and Separating

Grouping: Objects can be put into different groups. These groups can be made up of objects that are the same, or objects that have the same attributes (features). Computers can help us by allowing us to put different objects into groups. Yes or No Questions: Questions that require yes and no answers can be useful for helping us to find out the attributes of different objects. For example: Size, material, colour. Open Ended Questions: An open-ended question has many different answers. For example, what is your favourite food? It is not possible to make a branching database using open-ended questions. Multiple Groups: Sometimes, we need to split objects into more than two groups, and so one yes or no question alone is not enough. For example, we may wish to classify animals into the different animal types (mammals, birds, reptiles, amphibians, fish, etc.). We may ask multiple yes or no questions, such as 'does it lay eggs?' 'does it have hair or fur?' etc.