



**Crosby
Primary School**

**Computing Medium Term Plan
Year - Autumn Term**

**Cycle A Unit – (6 Weeks) Y 3 4
Branching Databases**

**National Curriculum
(Core Learning)**

NC LINKS

1. 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.

2. Use technology safely, respectfully and responsibly.

Curriculum Links

Various contexts are used to create branching databases throughout the unit. You can change these contexts to fit in with other areas of the curriculum.

Prior Knowledge

Builds on knowledge of key stage 1. Grouping Data unit 1.4.

Assessment: Formative assessment opportunities are provided in each of the lesson plan documents.

Summative assessment, multiple choice questions for this unit.

Resources

Visit: Teach it website

<https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases>

For Unit Plan, Lesson Plans unit plans and Learning Graphs

Vocabulary Generic vocabulary: objects, compare, equal, information, organise, order questions, separate and table.

New Topic vocabulary:

Attribute: Is a way of describing things, such as: colour, diet, pattern, size and habitat etc

Branching database : is a way of classifying groups of objects. It is used to help identify the objects by. answering questions with either 'yes' or 'no'.

Data : data means information. You can collect data by showing it in tables, charts or graphs.

Database : A database is composed of 'records', which are sets of data on a particular object.

Decision Tree: is a specific type of flowchart (or flow chart) used to visualise the decision-making process by mapping out different courses of action.

Selecting : carefully choose as being the best or most suitable.

Structure : organise and arrange the parts.

Value : the numerical worth or amount.

Lesson Sequence

Learning Objective

L1
LO To create questions with yes/no answers
Success criteria:
Investigate questions with yes/no answers.
Make up a yes/no question about a collection of objects
I can create two groups of objects separated by one attribute

Core Knowledge

Procedural Knowledge (Skills):

Create questions with yes/no answers.
Choose questions that will divide objects into evenly sized subgroups.
Repeatedly create subgroups of objects.
Identify an object using a branching database.

Additional Information

L1 See lesson plan

<https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/yes-or-no-questions>

Use Key Q

Which questions are yes/no, and which questions are open-ended?

<p>L2 LO To identify the attributes needed to collect data about an object Success criteria: Select an attribute to separate objects into groups. Create a group of objects within an existing group. Arrange objects into a tree structure.</p>	<p>Retrieve information from different levels of the branching. Propositional Knowledge (Concepts): Investigate questions with yes/no answers. Identify attributes that you can ask yes/no questions about.</p>	<p>L2 See lesson plan and presentation https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/making-groups Use Key Q What attribute could separate the 'Yes' group again? What question could you ask to separate these objects into groups?</p>
<p>L3 LO To create a branching database Success criteria: Select objects to arrange in a branching database. Group objects using my own yes/no questions. Test my branching database to see if it works.</p>	<p>Select an attribute to separate objects into two similarly sized groups. Recognise that a data set can be structured using yes/no questions. Relate two levels of a branching database using AND.</p>	<p>L3 See lesson plan and presentation https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/creating-a-branching-database Use Key Q What do you think you need before you can begin building a branching database? Did the branching database work? Do the questions focus on the correct attributes? Have the objects been organised into the correct groups? What could make the database better?</p>
<p>L4 LO To explain why it is helpful for a database to be well structure Success criteria: Create yes/no questions using given attributes. Compare two branching database structures. Explain that questions need to be ordered carefully to split objects into similarly sized groups.</p>	<p>Suggest real-world applications for branching databases. To explain that a: branching database is an identification tool; well - structured branching database will enable you to identify objects using fewer questions.</p>	<p>L4 See lesson plan and presentation https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/structuring-a-branching-database Use Key Q What is an attribute? What do you notice about this branching database?</p>
<p>L5 LO To plan the structure of a branching database. Success criteria: Independently create questions to use in a branching database. Create questions that will enable objects to be uniquely identified. Create a physical version of a branching database.</p>		<p>L5 See Lesson plan and presentation https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/using-a-branching-database Use Key Q What attributes could you use to compare? What questions could you ask to identify these?</p>
<p>L6 LO To independently create an identification tool. Success criteria: Create a branching database that reflects my plan. Work with a partner to test my identification tool. Suggest real-world uses for branching databases</p>		<p>L6 See Lesson plan and presentation https://teachcomputing.org/curriculum/key-stage-2/data-and-information-branching-databases/two-ways-of-presenting-information Use Key Q Does it work? Do you need to make any changes? What else could you use a branching database for?</p>

