



Computing

Year 5

Term 4

Using Data: Databases

Key Question: How are databases used to organise and present data?

National Curriculum Objectives:

- 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Vocabulary

Database, data, information, record, field, file, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation

Prior Learning:

- This unit develops children's knowledge of data-handling from branching tree databases from Year 3 to flat-file databases.
- In Year 4 the children use software to create graphs and charts from data recorded on a data-logger.

End Point:

The children will apply their knowledge of databases to act as travel agents.

Use end of unit assessment task.

Safe and Responsible Use:

use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Digital Literacy Skills:

- open, resize, reorganise and close windows,
- use a range of software

Knowledge:

I know:

- a computer program can be used to organise data
- what a field and a record is in a database
- that tools can be used to select and group data to answer questions
- how ordering data allows us to answer some questions
- how operands can be used to filter data
- that 'AND' and 'OR' can be used to refine data selection
- that computer programs can be used to compare data visually
- that we present information to communicate a message

Skills:

I can:

- navigate a flat-file database
- choose different ways to view data
- ask questions that need more than one attribute to answer
- choose which attribute (field) to sort and group data by to answer a given question
- choose which attribute and value to search by to answer a given question (operands)
- choose multiple criteria to search data to answer a given question (AND and OR)
- select an appropriate graph to visually compare data
- choose suitable ways to present information to other people

Cross Curricular Links:

- *English - alphabetical ordering*

Oracy:

- Presentation in role as a travel agent in the final lesson.

Key Questions:

What is spam, and what can you do about it?

What is a database?

How do computerised databases compare to paper based records?

How can databases be used?

How can data be compared?

How are databases used in real-world contexts?