



Data Handling

Levelled Examples



Context:

Children had been exploring the properties of materials within Science. They gathered a set of objects and used these to complete a database. Children initially created paper record cards before using ICT.

What the children did:

Children used their record cards to enter details into a pre-prepared database structure. Once complete they sorted records within their database, e.g. alphabetically. They also searched for items using one criteria, e.g. material.

Object	Material
flannel	fabric
Waterproof or not?	Not
Insulator or not?	Yes
Transparent or not?	No
Hard or soft?	soft
Fragile or strong?	strong
Flexible or rigid?	flexible
Shiny or not?	No
Absorbent or not?	Yes
Conductor or not?	No

What the children said:

Click on the eyes to search.

How many objects are made of plastic?

Pupils should:

- Use, search, sort and graph to answer questions.
- Create a simple database, explaining their method of organising information.
- Know how to use a database to create bar charts and pie charts.
- Know how to compare bar and pie charts, and talk about what they show.

Next steps:

Know how to create a database which they can use to identify any object in a collection.

Suggested resources:

- Database software e.g. 2Investigate Junior Viewpoint, Information Workshop, Information Magic, Textease Database
- Branching database e.g. Textease Branch, Granada Branch, 2Question, Decision Tree
- Spreadsheet software e.g. Microsoft Excel, Textease Spreadsheet, 2Investigate, 2Calculate, Number Magic

Example Cross Curricular Activities:

- Conduct a survey about the local area using a questionnaire and enter data into a spreadsheet (Geography).
- Design a branching database for others to use that will teach them about the wives of Henry VIII (History).
- Create a database to record the items children have in their homes and compare then and now (History).
- Record the results of an experiment investigating friction and use the results to answer hypotheses / questions (DT / Science)
- Create a database about the characteristics of materials / properties of shapes (Science / Mathematics).

Attainment target for ICT

Level 2

Pupils use ICT to organise and classify information and to present their findings. They enter, save and retrieve work. They use ICT to help them generate, amend and record their work and share their ideas in different forms, including text, tables, images and sound. They plan and give instructions to make things happen and describe the effects. They use ICT to explore what happens in real and imaginary situations. They talk about their experiences of ICT both inside and outside school.

Level 3

Pupils use ICT to save information and to find and use appropriate stored information, following straightforward lines of enquiry. They use ICT to generate, develop, organise and present their work. They share and exchange their ideas with others. They use sequences of instructions to control devices and achieve specific outcomes. They make appropriate choices when using ICT based models or simulations to help them find things out and solve problems. They describe their use of ICT and its use outside school.

Level 4

Pupils understand the need for care in framing questions when collecting, finding and interrogating information. They interpret their findings, question plausibility and recognise that poor quality information leads to unreliable results. They add to, amend and combine different forms of information from a variety of sources. They use ICT to present information in different forms and show they are aware of the intended audience and the need for quality in their presentations. They exchange information and ideas with others in a variety of ways, including using email. They use ICT systems to control events in a predetermined manner and to sense physical data. They use ICT based models and simulations to explore patterns and relationships, and make predictions about the consequences of their decisions. They compare their use of ICT with other methods and with its use outside school.