

Data Handling

Levelled Examples

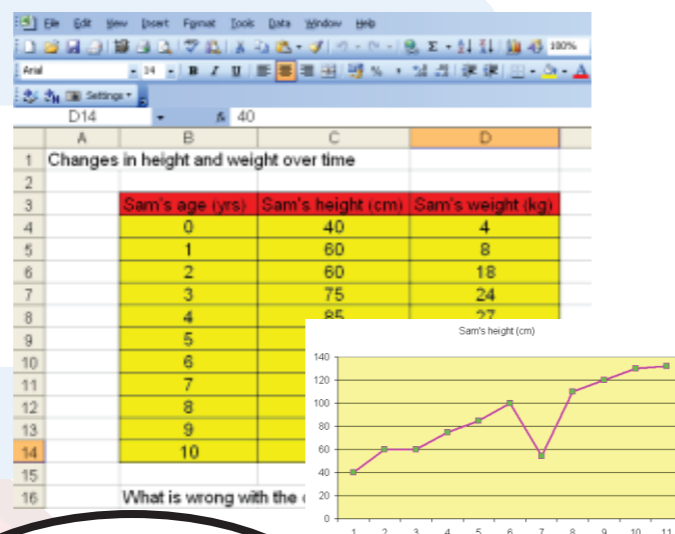


Context:

Children were exploring what might happen if there were any errors or omissions in a set of data.

What the children did:

Children used a spreadsheet showing Sam's change in height and weight over time. They produced a line graph to check for errors in the data.



What the children said:

His height can't have got shorter!

That must be wrong!

Pupils should:

- Know how to create and interpret different types of graph.
- Be able to explain and present findings from an investigation.
- Be able to collate evidence to support my hypothesis.
- Know how to create and interpret different types of graph.
- Know how to identify and correct implausible and inaccurate data.

Next steps:

- Know how to interpret and analyse information in graphs.
- Be able to explain and present findings from an investigation.
- Be able to collate evidence to support an hypothesis.

Suggested resources:

Database software e.g. 2Investigate Junior Viewpoint, Information Workshop, Information Magic, Textease Database. Spreadsheet software e.g. Microsoft Excel, Textease Spreadsheet, 2Investigate, 2Calculate, Number Magic

Example Cross Curricular Activities:

- Use a spreadsheet to record the nutritional value of pupils' weekly diet / a range of foods (Science / PSHE).
- Create a database comparing children in the class including fields e.g. hair colour, eye colour, hand span, height etc. Use the database to test a hypothesis (Science).
- Gather data about local issues (e.g. litter, traffic or pedestrian flow, accidents), to make conclusions and to present this to others (Geography).
- Gather, enter and analyse data as part of a river investigation and compare to published data on other rivers (Geography).
- Solve problems by collecting, selecting, processing, presenting and interpreting data, draw conclusions and identify further questions to ask (Mathematics).

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.

Level 5

Pupils select the information they need for different purposes, check its accuracy and organise it in a form suitable for processing. They use ICT to structure, refine and present information in different forms and styles for specific purposes and audiences. They exchange information and ideas with others in a variety of ways, including using email. They create sequences of instructions to control events, and understand the need to be precise when framing and sequencing instructions. They understand how ICT devices with sensors can be used to monitor and measure external events. They explore the effects of changing the variables in an ICT based model. They discuss their knowledge and experience of using ICT and their observations of its use outside school. They assess the use of ICT in their work and are able to reflect critically in order to make improvements in subsequent work.