Introduction to Scholastic Data Handling

About the series

Scholastic Data Handling is designed to support primary teachers by helping their students in using important data-handling skills every day. Each title in the series provides opportunities for using relevant data within all subject areas, as defined by the National Curriculum. By using the series, a teacher or school can be confident that they are embedding data handling, so that children are given real opportunities to find data from sources such as other people, books and the internet, and to use data in a variety of practical ways.

The importance of data handling

Every day we encounter data. This might be through television programmes, internet searches to find the best price for something, comparing costs in shops, and in discussions with others. Children will come across data from very early on, such as how many grapes each of them in a group has, how tall their tower of bricks is compared with those of others, and so on. As children become older and develop their own interests, they will encounter data in areas such as sports and their results, shopping and getting good value for money, or where they might go on holiday.

In order to foster development in data handling, children need to experience using real data, in real-life situations, as often as possible, so that they make the connections between what they learn at school and life outside school. Eventually, when children leave education and begin employment, data-handling skills will be vital to them in managing their work and living in society.

About this book

This book provides full coverage of the Data Handling strand from the Primary National Strategy: *Framework for Teaching Mathematics.*

Each double-page lesson consists of one page with lesson details and a second, photocopiable, activity sheet typically showing a data-handling diagram, chart or graph. Where possible, data-handling software, such as a graphing or pictogram tool, is incorporated into the lesson. Children's own data can be captured using this software, then displayed on the interactive whiteboard for all to see and discuss.

Across the series, each area of the National Curriculum is visited. If a subject area does not lend itself well to realistic data for a certain age range, this has been left for a later book to ensure the data is always pertinent.

Lesson structure
Each lesson contains:
- Mathematics objective(s) for the relevant year group taken from the Primary National Strategy for Mathematics and the National Curriculum. At least one objective from the data-handling strand is included for every lesson. National Curriculum objectives have been abbreviated, but full details can be found on a planning grid in the 'planning' area of the CD-ROM. Subject-specific objective(s) taken from the National Curriculum requirements or guidelines for the subject are also included.
- The vocabulary that specifically relates to the data handling content of the lesson.
- A list of resources, including practical materials, activity sheets that can be displayed or printed and references to images and interactive data-handling tools on the CD-ROM.

> **Resources**
> - Seeds, such as sunflower or runner bean; pots, compost, gardening equipment; uniform non-standard units of length, such as interlocking cubes
>
> **CD-ROM slideshow:**
> - Activity sheets: 'Growing seeds – table' (two copies for each child), 'Growing seeds block graph' (two copies for each child) and 'Sunflower challenge' (also p37)
> - Images: 'Growing sunflower'; 'Growing seeds'
> - Block graph tool
> - Interactive table: 'Growing seeds' Interactive block graph: 'Sunflower challenge'

- An introduction to the lesson, including questions to ask the children about the topic and the data.
- The children's task, which may be for group, paired or individual work.
- Differentiation to help you decide how to help the less confident learners in your group or class, and how to extend the learning for the more confident.
- A review of the lesson, where children's work may be considered, or where further data is introduced. This section includes more questions to ask the children in order to identify their level of understanding.
- A 'Now try this…' section, which has further ideas for activities based on the curriculum topic and its data-handling possibilities.
- CD-ROM follow-up material, which consists of images to stimulate enquiry or use of the data-handling tools to extend the investigation.
- An activity sheet with material which may form part of the Introduction, the Children's task or the Review.
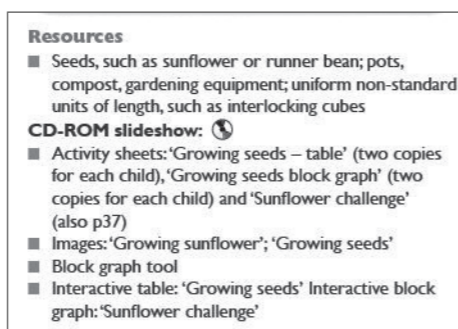
How to use the CD-ROM
- The CD-ROM needs to be installed. Double-click the 'installDHYear1.exe' file, and follow the instructions onscreen to install the software to your network or computer. If you or your school has purchased more than one *Scholastic Data Handling* title, these will all feed into the same, single, *Scholastic Data Handling* program.
- The opening menu asks you to choose between a Teacher Zone and a Kids Zone.

Kids Zone
- The Kids Zone comprises eight maths tools to create and print: sorting and Venn diagrams; Carroll diagrams; pictograms; tables and charts; block graphs; bar charts; line graphs and pie charts.
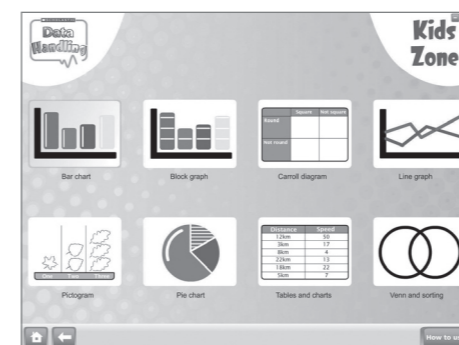
Teacher Zone
- **The Teacher Zone is password-protected. The password is: login.**
- Once in this zone, the relevant year group can be selected, which takes you to a lesson menu. There is at least one ready-made slideshow per lesson that includes all the CD-ROM resources needed: images, activity sheets, ready-made 'interactive' graphs, Word documents and so on.


- It is possible to edit or create bespoke slideshows, selecting from all the resources provided for all years that have been installed. It is also possible to upload your own resources into the *Scholastic Data Handling* program. Bespoke slideshows are saved in the 'My slideshows' area.

Slideshow resources across the series include:
- Activity sheets as PDF files that can be printed or displayed, and editable activity sheets in Word or Excel. Images and video which can be displayed on a computer or interactive whiteboard.
- The same tools provided in the Kids Zone, as well as ready-made 'interactives' within slideshows.

A more detailed 'How to use' document is provided on the CD-ROM.
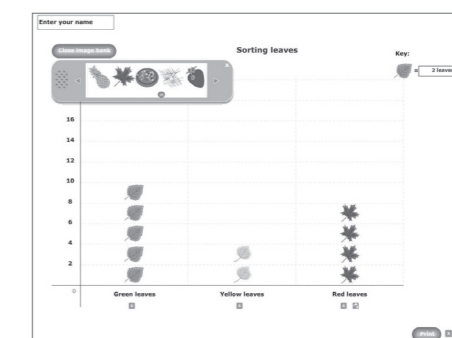
How to integrate data handling within a cross-curricular approach

When data handling is used as part of a topic or investigation, it gives children some insights into how they can use what they know in different curriculum areas, and in real life. The data handling in this series of books evolves naturally from the topics. In this way the children will experience data that is realistic, and relevant to them. Similarly, the 'Now try this…' section of the lessons gives further examples of collecting and using data in real-life situations. Within any topic there will be specific aspects of handling data that fit well within the subject matter. It is much better to use those aspects of handling data where they arise naturally, rather than try to 'force' data from topics.

This book provides opportunities for children to collect data, then organise it. There are opportunities to make tables, diagrams and graphs, as appropriate to the topic. There are also lots of opportunities to ask questions about the data, and to compare the class or individual children's data with that contained in the tables or graphs on the photocopiable pages provided in the book and on the CD-ROM.