

Teaching and spreadsheets

Teaching progression

The spreadsheet is probably the most versatile data handling tool we have. We can take the many skills involved in using one and put them into a 'progression ladder' as shown below. The top few rungs on the ladder can be achieved by using graph drawing programs, and younger children will gain access to some difficult ideas by using them. You'll need a spreadsheet to create models and do calculations. You can model how much electricity we use at home, or how much energy we use doing different activities. And if you set these up for the children, they need only add their numbers to have the difficult maths done for them.

Progression in data handling and modelling skills	
Using a graphing program or spreadsheet as a recording table.	IT Level 2
Using a graphing program or spreadsheet as a recording table. Sorting and graphing	IT Level 3
Saving and retrieving work on disc.	IT Level 3
Interpreting graphs and questioning their plausibility.	IT Level 4
Using a spreadsheet with built-in calculations as a model.	IT Level 4
Graphing one variable against another in a scattergraph and finding patterns.	IT Level 4
Changing formulae in a spreadsheet model to see how this affects the results.	IT Level 5 / 6

In fact, the skills at the bottom of the table are very hard to develop with a spreadsheet. It might even be better not to use a spreadsheet at all here. Perhaps more accessible tools - science programs could be used instead. There is a lot of ready-made and very good modelling software in the shops. There is a program that uses a picture of the home, complete with appliances, to show how much electricity we use. Another, lets you enter the food you eat and draws graphs to tell you if you are eating the right things. There is little doubt that these are better and easier to use, but this advantage has to be balanced against the value of teaching children about spreadsheets.

Nevertheless, the children will benefit from plenty of exposure to spreadsheets. They remain valuable for so many recording tasks.