

## Progression in constructing and using graphs and charts

These examples show how charts and graphs might develop in the primary school. They follow on from the tables produced during the bouncing ball investigations on page 33. In every case they are changing the height of drop (independent variable) and measuring the height of bounce (dependent variable).

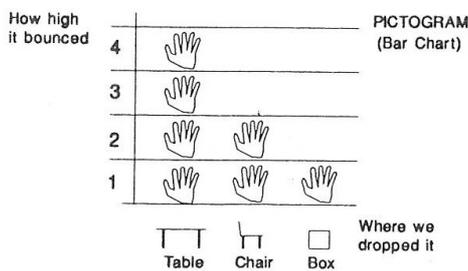
Standing on a chair

Big bounce

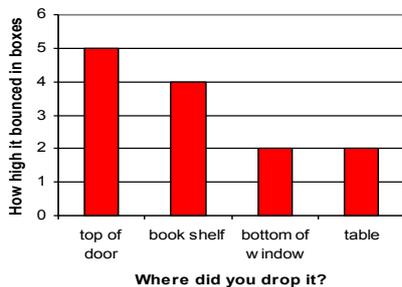
Standing on the floor

Little bounce

Independent and dependent variable are both described in words so no graph can be drawn

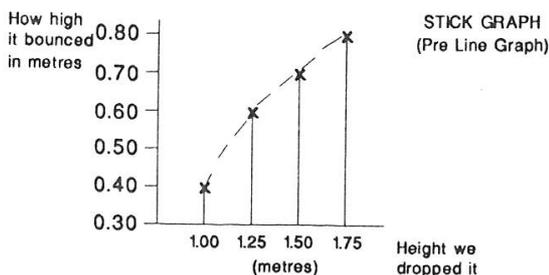


This child measured the height of the bounce in hands having marked the spot on the wall. He has stuck the correct number of hands one above the other in the correct column on a chart, which was prepared by the teacher.

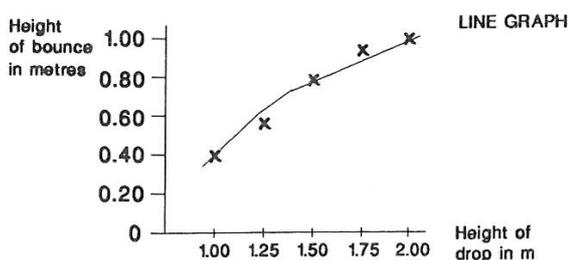


Bar Chart

This child has completed a bar chart where the labelling of the axes with the independent and dependent variable had been prepared by the teacher, along with the numbers on the vertical axis. The child filled in the different drop heights on the horizontal axis and coloured in the correct number of boxes in each column



In this example the teacher helped the child to decide on the scale that should be used on both the vertical and horizontal axes. The child labelled both axes with the independent and dependent variables. The child drew the sticks to the correct length for each value of the independent variable using the scale on the vertical axes correctly. [N.B. If the child had joined up the crosses on the top of the sticks, it would lead into the line graph.



This child has completed the line graph on her own, labelling the axes, deciding on the scales for both axes and correctly marking the crosses according to the measurements recorded on her table of results. She has drawn a line of best fit and she could use this to help her predict the height of bounce for any drop within her range of values.