

**LEARNING and TEACHING POINTS**  
for  
**Chapter 21**  
**Coordinates and Linear Relationships**

There is actually no need to limit primary-school children's experience of coordinates to the first quadrant, since the principles are the same in the other quadrants and these provide some useful experience of interpreting and applying negative numbers.

Science experiments give children opportunities to investigate whether or not a particular relationship approximates to a straight-line graph when plotted as coordinates. Use simple data handling software to record the data and to plot the points in a scattergraph (see Chapter 28).

Give children the chance to play simple games where they use the coordinate system to describe movements from one point to another.

Give children examples of how a relationship where one variable is directly proportional to another can be shown as a straight-line graph passing through the origin.

The use of coordinates to specify the location of points in a plane, rather than spaces, as in street maps, is a significant point to be explained to children carefully.

When a real-life relationship produces a straight-line graph, children should discuss whether or not the points between those plotted have meaning.

Get children to interpret tables of values obtained by exploring algebraic relationships (as in Chapter 20) as sets of coordinates, plot these, using simple data handling software, and discuss the results.