Data Detectives: Organising Information

1. A table with two columns: 'Bird' and 'Frequency'. Rows: Robin (8), Blue tit (7), Sparrow (5). (2 marks)

Working: Total: 8 + 7 + 5 = 20 children.

1 mark for correct headers, 1 mark for correct data values.

2. 13°C (2 marks)

Working: 12 + 15 + 11 + 14 = 52. 52 ÷ 4 = 13.

1 mark for total sum, 1 mark for correct division.

3. £30.00 (2 marks)

Working: £2.50 × 12 = £30.00.

1 mark for correct calculation, 1 mark for correct currency notation.

4. 33 (2 marks)

Working: 48 - 15 = 33.

1 mark for identifying largest/smallest, 1 mark for correct subtraction.

5. A pie chart shows the proportion of the whole group visually, making it easier to compare the sizes of different categories at a glance. (2 marks)

Look for: Mention of 'proportion', 'whole', or 'visual comparison'.

Good: It is easier to see the parts compared to the whole.

Better: A pie chart shows the proportion of children clearly, so you can see which group is the biggest at a glance.

Best: A pie chart represents the data as a whole, making it much easier to visually compare the proportions of children walking, cycling, or taking the bus than a list of numbers.

What moves an answer up: Moving from 'good' to 'best' involves using precise terminology like 'proportion' and explaining the visual benefit of the chart type.

What a secure answer looks like

A secure answer demonstrates an understanding of how to calculate averages and ranges, and explains data representation through visual comparison.

If your child is stuck

Ask the child to draw the data out as a picture or bar first; visualising the numbers often makes the calculation steps clearer.

Common mistakes to watch for

Forgetting to divide by the number of items when calculating the mean, or confusing the range with the mean.