

Bar charts: choosing a scale

CURRICULUM ALIGNMENT

DAT.DAT.4a

pose questions, collect, compare, summarise and represent data selectively to answer those questions.

INTERACTIVES [Bar Chart Builder](#) · challenge, display, explore

WHAT THIS LESSON TEACHES

When you draw a bar chart, choose how much each gap on the up-and-down axis is worth so the tallest bar fits neatly and smaller bars are still easy to read.

→ If the step is 5, the marked lines read 0, 5, 10, 15, 20

→ A bar of 30 fits neatly on a step of 5 but is squashed on a step of 1

MODEL THIS ON THE BOARD

SCALE FOR BLITZ GOALS

- 1 The four teams scored **25**, **5**, **3** and **7** goals. The tallest value is **25**.
- 2 A step of **1** would need 25 tiny gaps and squash the chart.
- 3 A step of **5** marks 0, 5, 10, 15, 20, 25 so the bar for 25 reaches the top line cleanly.
- 4 Smaller scores of 5, 3 and 7 still show clearly on the same step of 5.

ANSWER KEY

Scaffold: visual check on the page

Q1: 5

Q2: 0, 5, 10, 15, 20, 25, 30, 35, 40

Q3: neat

Q4: range 26; step 5

Q5: 25 line

a) Always : You must cover the biggest number or the bar will not fit.

b) Sometimes : True for scores up to about 40; false for scores in the hundreds, which need a bigger step, or scores up to 6, which need a smaller one.

c) Sometimes : It works for small numbers but squashes a chart that goes up to 30 or more.

d) Always : The same value reaches a different grid line when the gap worth changes.

EXTENSION SHEET · STRETCH ANSWERS

S1: step of 10

S2: step of 10

S3: step of 10

S4: step of 5

S5: step of 5