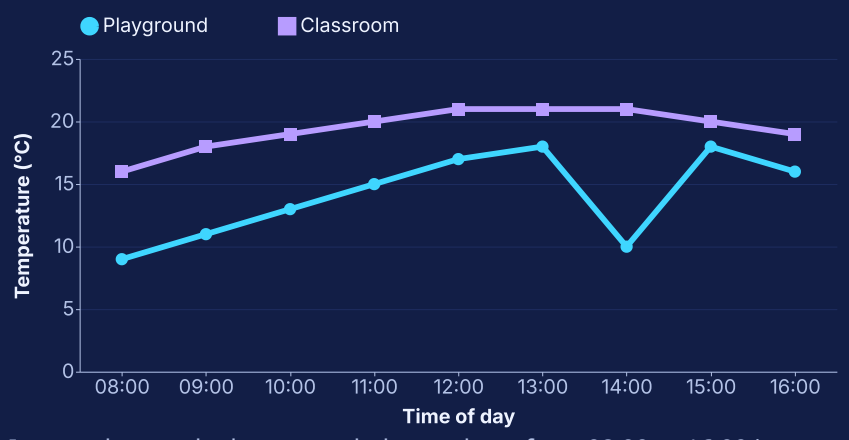
CHOOSING THE RIGHT CHART · PART 4 OF 8 · AGES 11–16

How to Read a Graph

Seven checks, in order, that turn a graph into a sentence you can trust. Practise on the example below.

Example: temperature on one school day



Invented example data, recorded every hour from 08:00 to 16:00 in a playground and a classroom.

1

Read the title

Find out what was measured, where and when. Here: temperature on one school day, in two places. 'Invented data' warns you this example is for practice only.

2

Check the axes and units

Across: time of day. Up: temperature in degrees Celsius (°C). Without its unit, a number such as 20 could mean minutes, per cent or anything else.

3

Work out the scale

Gridlines go up in steps of 5 °C. Work out what each small step is worth before reading a value between lines, and check whether the axis starts at zero.

4

Use the key

The key shows which line is the playground (circles) and which is the classroom (squares). Match every colour or symbol to the key before you compare.

5

Describe the trend

Say what happens overall, with numbers. The playground warmed from 9 °C at 08:00 to 18 °C at 13:00; the classroom stayed between 16 °C and 21 °C.

6

Spot outliers

Look for points that break the pattern. The playground fell to 10 °C at 14:00, then rose to 18 °C at 15:00. Ask why: a rain shower, or a reading error?

7

Write a conclusion

Answer the question with numbers and claim only what the data shows: 'The playground varied far more than the classroom.' One day cannot prove what always happens.

Inside or outside the data?

Estimating a value between plotted points (interpolation) is fairly safe. Predicting beyond the last point (extrapolation) assumes the pattern carries on, and it may not.

NEXT IN THE SERIES
5. Common Chart Mistakes and How to Fix Them

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