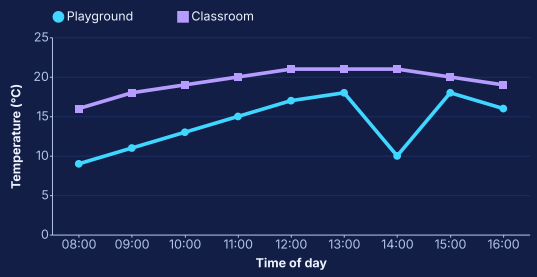
CHOOSING THE RIGHT CHART · PART 4 OF 8 · AGES 11–16

# 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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