

The mode: the most common value

CURRICULUM ALIGNMENT

DAT.DAT.3

pose questions of interest and collect, display and critically analyse data in a range of ways for a range of purposes and communicate the findings.

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

WHAT THIS LESSON TEACHES

The mode is the value or category that appears most often in a set of data. It is the category itself (e.g. vanilla), not the number of times it was chosen.

→ If most of the class chose vanilla ice cream, then vanilla is the mode.

→ If football and hurling are each chosen by 7 pupils, both are the mode.

MODEL THIS ON THE BOARD

FINDING THE MODE ON A PET CHART

- 1 Read the class votes: cat, cat, cat, dog, dog, dog, dog, dog, fish, fish, rabbit.
- 2 Count each pet: cat **3**, dog **5**, fish **2**, rabbit **1**.
- 3 Dog has the highest count so the mode is dog.

DISCUSSION STARTER

REFLECT How do you spot the mode quickly on a bar chart or a tally?

LESSON ARC

Open the bar-chart-builder interactive on the IWB with a favourite-ice-cream chart and take three hands-up answers about which flavour climbs highest. Work three demo charts — one clear winner, one where the tallest bar sits at a low value, one with a tie. Pupils build and read pets and colours charts together, then write the mode as a category name in their copy. Class Challenge round consolidates with shoe sizes and a final tied set.

TEACHING MOVES

1. **Getting Started.** Show the ice-cream chart on the bar-chart-builder and take three hands-up answers, not open call-outs. Steer every answer toward 'which flavour was chosen most', not 'how many' — that distinction is the whole lesson.
2. **Watch and Notice.** Run the three demo charts slowly. On the second chart the tallest bar sits at a small value — press the class: 'is it still the mode?' to head off the idea that the mode must be a big number. On the third, hold out silently until a pupil notices there are two tied bars.
3. **Try It Together.** Pupils take turns setting bars from numbers you call — pets, then colours, then a tied set. Close every chart with the same question: 'so what is the mode?' and insist on the category name ('dog'), refusing the count ('six'). Revoice a strong answer on the tie: 'so this set has two modes.'
4. **Write the Mode in Your Copy.** Point at the break-time-game chart and have pupils write the sentence frame in their maths copy. Walk the room glancing for a category name filling the blank, not a number — a written count is the misconception surfacing.

5. **Class Challenge.** Brisk practice round — pupils take turns at the board, name the mode, press Check, class confirms, move on. Don't re-explain each one. On the final tied set, hold out for a pupil to spot the tie before the reveal.
6. **What Did We Notice?.** Pose the two-modes question and listen for pupils tying the mode to bar height. Revoice: 'so the mode is whichever category comes up most — and sometimes that's more than one.' Keep this display-only discussion, no writing.

COMMON MISCONCEPTIONS

⚠ Asked for the mode, a pupil answers with the count — 'six' or 'seven' — instead of naming the category the tallest bar belongs to.

Point at the tallest bar and separate the two questions out loud: 'how many? six. Which one? dog. The mode is the which — dog.' Rerun the closing question until they give the category name.

⚠ Pupils assume the mode has to be a big number, so they skip a tall bar sitting at a low value and hunt for a larger one.

Use the second demo chart where the winner sits low. Show that mode is about which bar is tallest relative to the others, not the size of the number underneath it.

⚠ 'There can only be one mode' — pupils reject a tie and pick just one of the two equal bars.

On the tied chart, lay a ruler or straight edge across both bar tops to show they reach exactly the same height. Both count — the set has two modes.

DIFFERENTIATION

EMERGING

- On the bar-chart-builder, keep the demo to four categories with one obviously tallest bar; hold the tied chart back until they're secure on the single-mode case.
- Give the copybook sentence with the category options listed underneath so pupils choose and copy the name rather than generate it.

DEVELOPING

- After the copybook moment, ask pupils to change one bar so a different category becomes the mode — then say which category it now is.
- On a colours chart, ask which bar you'd have to raise, and by how many, to create a tie.

PROFICIENT

- During the Class Challenge, narrate a harder variant: give a set with no repeats at all and ask whether it has a mode — let them reason that no value comes up most often.
- Pull fast finishers ahead into the Student Activity Book page while the class works the tied round.

✂ **Cross-curricular:** Tie to Geography — chart the class's favourite Irish county to visit and name the mode from the tallest bar.

ANSWER KEY

c) rabbit

Q1: rabbit

Q2: red

Q3: 3

Q4: tag and football

a) Always : That is exactly what mode means.

b) Sometimes : This is true only when two or more values tie for most frequent.

c) Never : The mode is the value or category itself, never its count.

d) Sometimes : True when one bar is tallest; two equal tallest bars give two modes.