Ages: 12-14

Coincidence or cause?

9 min



What to do:

1. Offer an observation: "The more ice cream sold in a city, the more bikes you see on the streets."
2. Work through all the possibilities together: "Does ice cream somehow affect bikes? Do bikes affect ice cream? Or is there a third thing driving both?" Don't give the answer straight away - let them think it through.
3. If the "direct link" theory is still standing, ask them to explain the mechanism: "How exactly does one lead to the other? Walk me through it step by step." That's usually where the connection falls apart.
4. Try a few more pairs: "Kids who have more books at home do better at school." "People who eat breakfast are more successful."
5. Compare them: "Which of these pairs looks most like a genuine cause - and why that one in particular?"

Try this too:

"Find a headline in your feed along the lines of 'scientists prove that one thing leads to another.' What did they actually measure?"

Adaptation

- **Too hard** - pairs where the third factor is obvious: warm weather, school holidays, time of day.
- **Too easy** - ask them to come up with a way to test whether there's a real cause at work.

When you revisit after a month:

"Remember the ice cream and bikes? Today let's look at the same kind of connections in sport."

What we practised:

"Two things moving together doesn't mean one is causing the other - there's often a third factor driving both. This is the most common trap in 'scientists have proved…' news stories."