

End-of-primary maths fair

CURRICULUM ALIGNMENT

DAT.DAT.4b

critically analyse and evaluate findings; and communicate inferences, conclusions and implications from the findings.

ALG.PRR.4a

identify, explain and apply generalisations, including properties of operations, mathematical models and patterns.

LESSON ARC

Open by inviting pupils to pick one investigation they're proud of from the year, then pose the anchor question: what makes an explanation clear enough to repeat? Model the four-part shape — Question, Method, Result, Surprise — aloud using the yard-area project. Rehearse it once with a volunteer, timing to two minutes and agreeing one fair audience question. Then open parallel stalls: every pupil presents to their small group and fields one method-pushing question. Close with maths-talk on which methods travel to new problems.

TEACHING MOVES

1. **Getting Started.** Take two or three hands-up answers, not open call-outs. Steer them past 'a good answer' toward the real target: a clear explanation lets someone repeat the work and get the same result. Set the celebratory tone — this is the last primary maths lesson.
2. **Watch and Notice.** Model the four labels aloud once with a real class investigation (the yard-area project works well) — walk the labels, don't read a script. Dwell on Surprise: it's what makes a talk memorable, so name a genuine one from the project. Show poster / demonstration / talk as real choices so a shy pupil can pick a poster.
3. **Try It Together.** Take one volunteer with a clear piece and coach them through the four parts, keeping the whole thing to about two minutes so the class sees good is short, not five minutes long. Then ask 'What is one fair question we could put to this presenter?' and revoice a strong one into a How-do-you-know or What-if shape.
4. **Class Challenge.** Split into groups of four or five, each at its own desk cluster, all stalls running at once. Budget about two and a half minutes per presenter (two to present, half a minute for one question) — keep a soft two-minute talk limit so the question always fits. Circulate rather than standing at the front, and at each stall steer weak questions ('was it hard?') toward method-extending ones ('would your method still work if the space were round?').
5. **What Did We Notice?.** Ask which method could answer a completely different question, and why it carries across. Listen for pupils spotting that a general method (splitting a shape into rectangles, finding one then scaling) transfers because it doesn't depend on today's numbers. Revoice: 'so the method works on the shape of the problem, not just today's figures.'

COMMON MISCONCEPTIONS

⚠ A presenter reports only the answer — 'the yard is 380 square metres' — and stops, treating the number as the whole story.

Prompt with the four labels: 'That's your Result — now give us your Method so we could check it.' If a pupil can't reconstruct the method aloud, that's the gap to coach, not the arithmetic.

⚠ Audience questions default to feelings, not method — 'was it hard?' or 'did you enjoy it?' — so nobody's approach gets tested.

At each stall, model one method-extending question yourself the first time, then hand it back: 'Now you ask one that starts with How do you know or What if.' Keep the sentence-starters visible so pupils have a scaffold to reach for.

DIFFERENTIATION

EMERGING

- Let a less confident presenter show a poster and answer questions rather than deliver a talk from memory.
- When forming groups, seat a less secure pupil so a supportive, calm classmate asks their first question.

DEVELOPING

- After a clean four-part talk, ask the presenter to name a second surprise or a point where their method nearly failed.
- Assign one pupil per stall as the 'fair-question keeper' who checks every question tests the method, not the feelings.

PROFICIENT

- Field a harder what-if: ask a strong presenter whether their method would survive a changed condition (a round bed instead of rectangular, doubled numbers) and to reason it out loud, not just guess.
- Ask them to explain their method as if to a younger pupil who has never seen the investigation — a real test of clarity.

✓ **Cross-curricular:** Tie to English oral language — the Question-Method-Result-Surprise shape is a genuine structure for any spoken explanation, not just maths.

ANSWER KEY

Scaffold: visual check on the page