

# The Hidden Language of Maths

Clarify the language of mathematical reasoning and interpretation.

5 min preparation | Science, Maths and Humanities

## Before the lesson

Choose a mathematical task where language affects the reasoning or interpretation.

## Teach it in four steps

1. Represent the problem using numbers, a diagram or objects.
2. Clarify mathematical and everyday meanings of key terms.
3. Model a justification linking the representation to a method.
4. Solve a related problem and explain the choice of method.

## Worked classroom example

Maths: “difference” in “Find the difference between 12 and 7” requests subtraction; “How are the methods different?” requests comparison.

Teacher prompt: “Which detail supports your explanation? Show me how you know.”

## Check understanding

Give both questions and check that learners select the appropriate kind of response.

## Fade the support

Remove the representation prompt while allowing learners to draw their own.

## Adapt it across subjects

Science: distinguish difference between readings from a qualitative comparison.

Humanities: discuss what a comparative question asks learners to contrast.

## Adjust the language support

A1-A2 access: keep the subject goal; use visuals, a small word bank, pointing or drawing and partner rehearsal. Use a home language to establish meaning where helpful.

B1-B2 extension: ask for fuller explanations, precise subject vocabulary and qualifications. Reduce sentence openings when learners can organise the response independently.

These are starting points, not placement rules. Judge support from the learner’s response to this task; proficiency can differ across skills.