

## Map Measure

Approach: One to one

Level: Year 4 and year 8

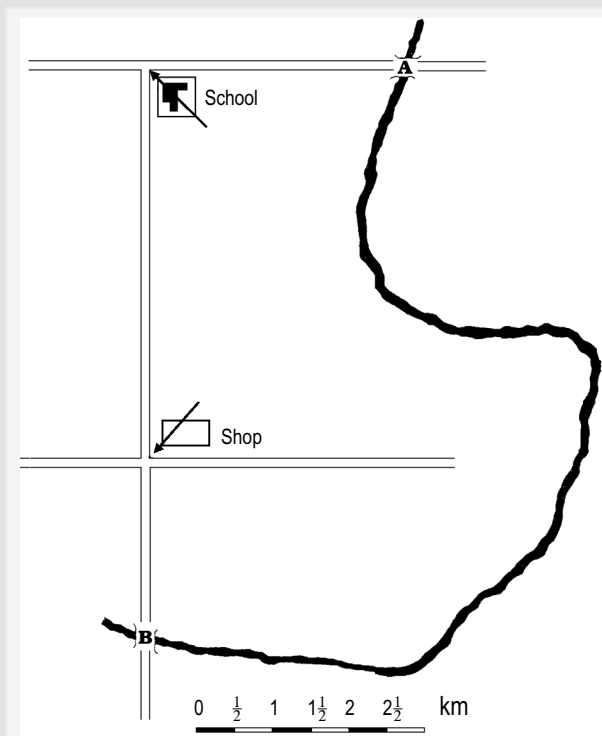
Resources: Map, ruler.

### Questions/instructions

In this activity I want you to think about measurements, and to use metric units — like millimetres, centimetres, metres and kilometres.

Write down all student answers on the response sheet.

Show the map.



% responses  
year 4 year 8

1. I want you to look at this map and estimate (or guess) the length of the line from the corner by the school to the corner by the shop (where the arrows are pointing).

Prompt: What are the units of measure for your answer?

within 20%	29	57
off by 20–40%	10	16

2. Here is a ruler. Use this to find the actual length of the line.

Prompt: What are the units of measure for your answer?

within 2mm	57	88
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3. If the answer is given in centimetres say:

How many millimetres is that?

correct conversion	43	85
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OR If the answer is given in millimetres say:

How many centimetres is that?

4. Look at the scale at the bottom of the page. Using the scale, find out how far you would have to walk from the school to the shop.

You can use the ruler to help you.

correct, given measurement in (2)	34	52
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Prompt: What are the units of measure for your answer?

### Remove the ruler.

5. Estimate how many centimeters along the river from A to B on the map.

within 20%	22	61
off by 20–40%	9	21

6. How would you check your estimate?

appropriate plan	29	64
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### Commentary

On average, about 30 percent more year 8 than year 4 students succeeded with these tasks.