

GRADE 4 LEARNING PACK

The Map Scale Mix-up

Use story evidence to reason about scale, proportional relationships and error checking.

LEARN • PRACTISE • CREATE • REFLECT

Original BrightPencil Kids resource - adult-led where appropriate

A4 edition • 12 purposeful pages • review copy

Print. Learn. Grow.

Grown-up guide

Learning objective

Use story evidence to reason about scale, proportional relationships and error checking.

Use this pack well

- Model the first example aloud, then let the learner try.
- Ask “How do you know?” more often than “Are you finished?”.
- Use real objects, talk, movement or observation when the activity suggests it.
- Stop or shorten the session if attention or enjoyment drops.
- Open-ended pages can have many successful answers.

Quality note

This resource was written originally for BrightPencil Kids. Curriculum sources informed scope and progression only; no third-party worksheet or story text is reproduced.

Read the story

PART 1

Nora planned a fictional cycling route using a map. The scale said 1 centimetre represented 2 kilometres, but she accidentally treated every centimetre as 1 kilometre.

PART 2

Her route measured 7 centimetres on the map, so she announced it was 7 kilometres long. Her partner checked the scale and paused.

PART 3

Instead of saying only “wrong”, he wrote the relationship: 1 cm → 2 km. Then they doubled each centimetre together.

PART 4

The route was actually 14 kilometres. That changed their choice because the class task required a route shorter than 10 kilometres.

PART 5

Nora added a reminder beside the scale: “Read the relationship before calculating.” She had not just corrected an answer; she had improved her method.

Read section 1: Nora planned a fictional cycling route using a map. The scale said 1 centimetre represented 2 kilometres, but she accidentally treated every centimetre as 1 kilometre.

Read section 2: Her route measured 7 centimetres on the map, so she announced it was 7 kilometres long. Her partner checked the scale and paused.

Read section 3: Instead of saying only “wrong”, he wrote the relationship: 1 cm $\rightarrow$ 2 km. Then they doubled each centimetre together.

Read section 4: The route was actually 14 kilometres. That changed their choice because the class task required a route shorter than 10 kilometres.

Read section 5: Nora added a reminder beside the scale: "Read the relationship before calculating." She had not just corrected an answer; she had improved her method.

Try it beyond the page

Real-world / hands-on connection

Retell the story to a trusted adult in under one minute, then name the moment that changed the direction of the story.

Before you finish

What did you notice?

What evidence, object or example helped you?

What would you change if you tried again?

Create something

Your project

Create a six-frame evidence storyboard showing setup, problem, evidence, turning point, decision and learning idea.

Use this space for planning, drawing, mapping, designing or notes.

CHALLENGE

Think deeper

1. What error did Nora make?

2. How long was the route really?

3. What strategy prevented the same mistake later?

Quick review

1. In one sentence, explain the big idea of “The Map Scale Mix-up”.

2. Draw or write one example that shows you understand.

3. Choose one activity from this pack and explain the strategy you used.

4. Write one question you still have.

Answer & discussion notes

Use these as guidance, not scripts. Open questions can have different successful responses when the reasoning is sensible and evidence-based.

1. Suggested response

Use details stated or strongly supported by the story.

2. Suggested response

Equivalent evidence-based wording is acceptable.

3. Suggested response

Open responses should explain reasoning using story evidence.

Review before publication

Check age fit, factual accuracy, clarity, accessibility, rights provenance and whether the activity works in practice. This file remains a review copy until those checks are signed off.

FINISH

My learning reflection

I finished this BrightPencil learning pack.

One thing I understand better now:

A strategy that helped me:

Something I created or noticed:

My next small question or goal:

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