

GRADE 5 LEARNING PACK

The Sample That Was Too Easy

Read a data story and reason about sampling and privacy.

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

Read a data story and reason about sampling and privacy.

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

A class wanted to estimate how pupils travelled to school. Ben asked ten friends sitting beside him at lunchtime and found that eight walked.

PART 2

He was ready to write '80% of pupils walk to school' until Aisha asked how the ten people had been chosen.

PART 3

Their table group sat near the pedestrian entrance, and several lived close by. The sample was convenient, but it might not represent the whole school.

PART 4

They designed a better plan using a larger sample drawn from several year groups and arrival areas, with teacher approval and no names collected.

PART 5

The second result was different. More importantly, the class could explain why its method was less biased.

Summarise the problem in no more than three sentences.

Identify the turning point where the character changes method or interpretation.

Match each inference to the strongest story evidence.

Write an alternative choice and predict a plausible consequence.

Explain the transferable strategy from the story in your own words.

Try it beyond the page

Real-world / hands-on connection

Retell the reasoning problem to a trusted adult and explain which evidence mattered most.

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 one-page response: key evidence, inference, strategy learned and a new scenario where it could help.

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

CHALLENGE

Think deeper

1. Why was the first sample weak?

2. What improved the second plan?

3. Did the class need pupil names?

Quick review

1. In one sentence, explain the big idea of “The Sample That Was Too Easy”.

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

It was a small convenience sample from one group.

2. Suggested response

Broader, more systematic sampling.

3. Suggested response

No.

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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