

GRADE 5 LEARNING PACK

Statistics in Everyday Claims

Interpret percentages, samples and averages in everyday claims without accepting numbers at face value.

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

Interpret percentages, samples and averages in everyday claims without accepting numbers at face value.

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.

Learn the idea

1 A percentage needs a clear base or denominator.

2 Sample size and selection affect how well results may generalise.

3 Average can mean different measures and can hide variation.

Talk about it

Explain one idea in your own words. Give an example from real life, a drawing or an object if that helps.

Build a clear model or organiser that shows: A percentage needs a clear base or denominator.

Use supplied evidence to test this idea: Sample size and selection affect how well results may generalise.

Compare two cases and explain where this principle matters: Average can mean different measures and can hide variation.

Find one weak claim or assumption and revise it so it matches the evidence.

Write a short conclusion that states evidence, limitation and next question.

Try it beyond the page

Real-world / hands-on connection

Find a child-safe public statistic with an adult and identify its source, sample or denominator where available.

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 three fictional statistical claims: one strong, one incomplete and one misleading, then annotate them.

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

CHALLENGE

Think deeper

1. What does 40% mean without knowing “40% of what”?

2. Can a tiny convenience sample represent everyone?

3. Why can an average hide variation?

Quick review

1. In one sentence, explain the big idea of “Statistics in Everyday Claims”.

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 is incomplete.

2. Suggested response

Usually not reliably.

3. Suggested response

Different values can combine to the same average.

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.

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:
