

GRADE 5 LEARNING PACK

Ratio & Proportional Reasoning

Use ratio language, scaling and multiplicative comparison to solve simple proportional situations.

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 ratio language, scaling and multiplicative comparison to solve simple proportional situations.

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 ratio compares quantities multiplicatively, not by subtraction alone.

2 Equivalent ratios can be produced by multiplying or dividing both parts by the same factor.

3 Tables, double number lines and diagrams can make proportional relationships visible.

Talk about it

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

Interpret a 2:3 ratio in a set context.

Complete an equivalent ratio table for 3:5.

Scale a simple recipe-style mixture without using real purchases.

Use a double number line to solve a distance/time-style proportional problem.

Distinguish “three more” from “three times as many”.

Try it beyond the page

Real-world / hands-on connection

Build colour-cube or paper-token ratios and scale them up while keeping the relationship unchanged.

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 ratio puzzle using two colours, a table and one missing value.

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

CHALLENGE

Think deeper

1. What must happen to both parts to make an equivalent ratio?

2. Is 2:3 the same as 4:6?

3. Does ratio compare by difference only?

Quick review

1. In one sentence, explain the big idea of “Ratio & Proportional Reasoning”.

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

They are multiplied or divided by the same non-zero factor.

2. Suggested response

Yes.

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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