

GRADE 5 LEARNING PACK

Pattern Generalisation & Rule Testing

Infer rules from patterns, represent them clearly and test whether the rule fits beyond the examples shown.

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

Infer rules from patterns, represent them clearly and test whether the rule fits beyond the examples shown.

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 Many different rules can fit a few initial terms.

2 A proposed rule should predict later cases correctly.

3 Tables, diagrams and expressions can represent the same pattern.

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: Many different rules can fit a few initial terms.

Use supplied evidence to test this idea: A proposed rule should predict later cases correctly.

Compare two cases and explain where this principle matters: Tables, diagrams and expressions can represent the same pattern.

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

Analyse growing visual patterns and numeric sequences.

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 pattern with a rule, table and challenge term.

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

CHALLENGE

Think deeper

1. Do three terms always determine one unique rule?

2. How should a proposed rule be tested?

3. Why use multiple representations?

Quick review

1. In one sentence, explain the big idea of “Pattern Generalisation & Rule Testing”.

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

No.

2. Suggested response

Use it to predict additional cases.

3. Suggested response

They can reveal structure in different ways.

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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