GRADE 3 LEARNING PACK

Multiplication Facts, Arrays & Relationships

Build multiplication fact fluency through arrays, known facts and relationships rather than isolated memorisation alone.

LEARN • PRACTISE • CREATE • REFLECT

Original BrightPencil Kids resource - adult-led where appropriate

A4 edition • 12 purposeful pages • review copy

Print. Learn. Grow.

FOR PARENTS & TEACHERS

Grown-up guide

Learning objective

Build multiplication fact fluency through arrays, known facts and relationships rather than isolated memorisation alone.

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.

STUDY

Learn the idea

1 **Multiplication can represent equal groups or arrays.**

2 **Known facts can help derive unknown facts.**

3 **Commutative pairs have the same product.**

Talk about it

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

PRACTISE

Guided practice

Challenge 1

Represent 6 x 4 as an array.

Challenge 2

Use 5 x 7 to reason about 6 x 7.

PRACTISE

Build the skill

Challenge 3

Match 3 x 8 with 8 x 3 and explain.

Challenge 4

Find a missing factor: ? x 6 = 42.

PRACTISE

Independent thinking

Challenge 5

Solve a multiplication word problem and label the groups clearly.

APPLY

Try it beyond the page

Real-world / hands-on connection

Build arrays with counters or squared paper and physically turn the array to see related facts.

Before you finish

What did you notice?

What evidence, object or example helped you?

What would you change if you tried again?

CREATE

Create something

Your project

Design a multiplication garden using arrays for at least five facts.

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

CHALLENGE

Think deeper

1. How can 5 x 7 help with 6 x 7?

2. What is a factor?

3. Does turning an array change the product?

REVIEW

Quick review

1. **In one sentence, explain the big idea of “Multiplication Facts, Arrays & Relationships”.**

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.**

FOR GROWN-UPS

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

Add one more group of 7.

2. Suggested response

A number being multiplied.

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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