Extension Opportunities

Maths – No Problem!

This resource outlines extension opportunities that are available for teachers using Ministry-funded maths resources from Maths – No Problem! (MNP). This resource is designed to support teachers to focus on deepening the maths knowledge of confident learners within their year level.

Visit Tāhūrangi for more information about ordering Ministry-funded maths resources.

Ordering Ministry-funded maths resources

Guidance for teaching to the year level

Extending students is not about accelerating confident learners beyond their year level.

Extension is about stretching and growing confident learners by offering more depth at their year level. Deep learning builds flexible, creative, and independent mathematical thinkers – traits that last well beyond the current year level.

When confident maths learners are extended, they develop the ability to transfer knowledge to new and unfamiliar contexts, tackle problems in multiple ways, communicate reasoning clearly and make meaningful mathematical connections.

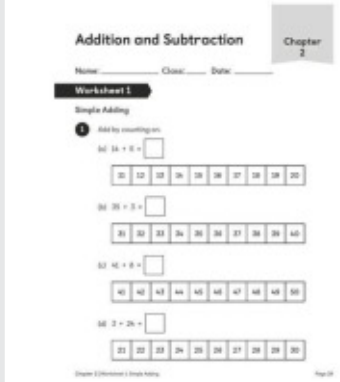
Daily differentiated worksheets (student workbooks)

In MNP the daily worksheets are diagnostic practice and have built in differentiation. The worksheets are structured in three sections, which give the teacher daily assessment data.

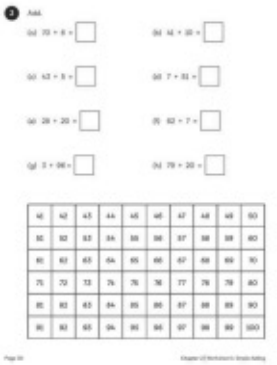
The sections indicate a child's level of understanding:

- Section 1: apply the basics of a concept
- Section 2: apply the basics of a concept and can apply these in a familiar situation/problem
- Section 3: apply the basics of a concept and can apply these in an unfamiliar situation/problem

Students do not need to complete the whole worksheet daily. Confident learners would be expected to complete all three sections while other learners are only expected to complete the worksheets to an appropriate level for their understanding.



Section 1:
Knows the basics and concepts



Section 2:
Knows the basics and concepts, and can solve problems in familiar situations

Section 3:
Knows the basics and concepts, and can solve problems in unfamiliar situations

Mind Challenge

At the end of each chapter in both the textbook and the workbook there is a Mind Challenge. This is an extension question designed to challenge confident learners and requires deeper-level reasoning skills.

Chapter Structure

The chapter structure provides insight to students' level of understanding based on the skills required. The chapters are designed to utilise Zoltan Dienes' variation theory, and the skills incrementally build.

The chapters are structured so the final few lessons in each chapter require students to apply the concept in more complex situations. Teachers may find that many students can calculate or can manage the procedural fluency lessons but may need more support with the lessons which require them to apply the concepts in more complex situations at the end of the chapters.

Differentiation PLD

The free implementation session held at the beginning of 2025 included an entire section around differentiation. It focused on strategies for extending confident learners during lessons and techniques for supporting learners with less prior learning (scaffolding) to access content at their expected level.

Extension examples:

- Write a word problem
- Invent a method
- Create your own worksheet
- Make a physical model
- Draw a visual representation
- Finding all the possibilities
- Evaluate methods

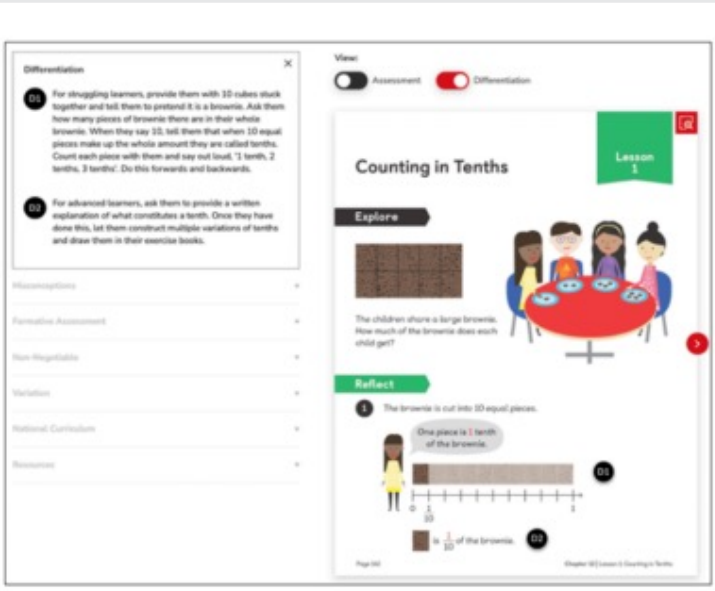
Scaffolding support examples:

- CPA approach and specific concrete supports
- Scaffold concepts and fill gaps using previous year's content and scaffolding
- Guided workbook groups
- Key intervention exercises

Differentiation is an extensive part of MNP training workshops and in-class modelling.

Daily differentiation suggestions on the Digital Hub for every lesson

On the Hub there is a ‘differentiation’ tab for every lesson. This tab provides explicit suggestions for how to extend the lesson for confident learners and scaffold the learning for students with less prior learning.



Daily Differentiation Suggestions

Daily ‘Explore’ task designed to be a low floor, high ceiling rich task and the lesson structure

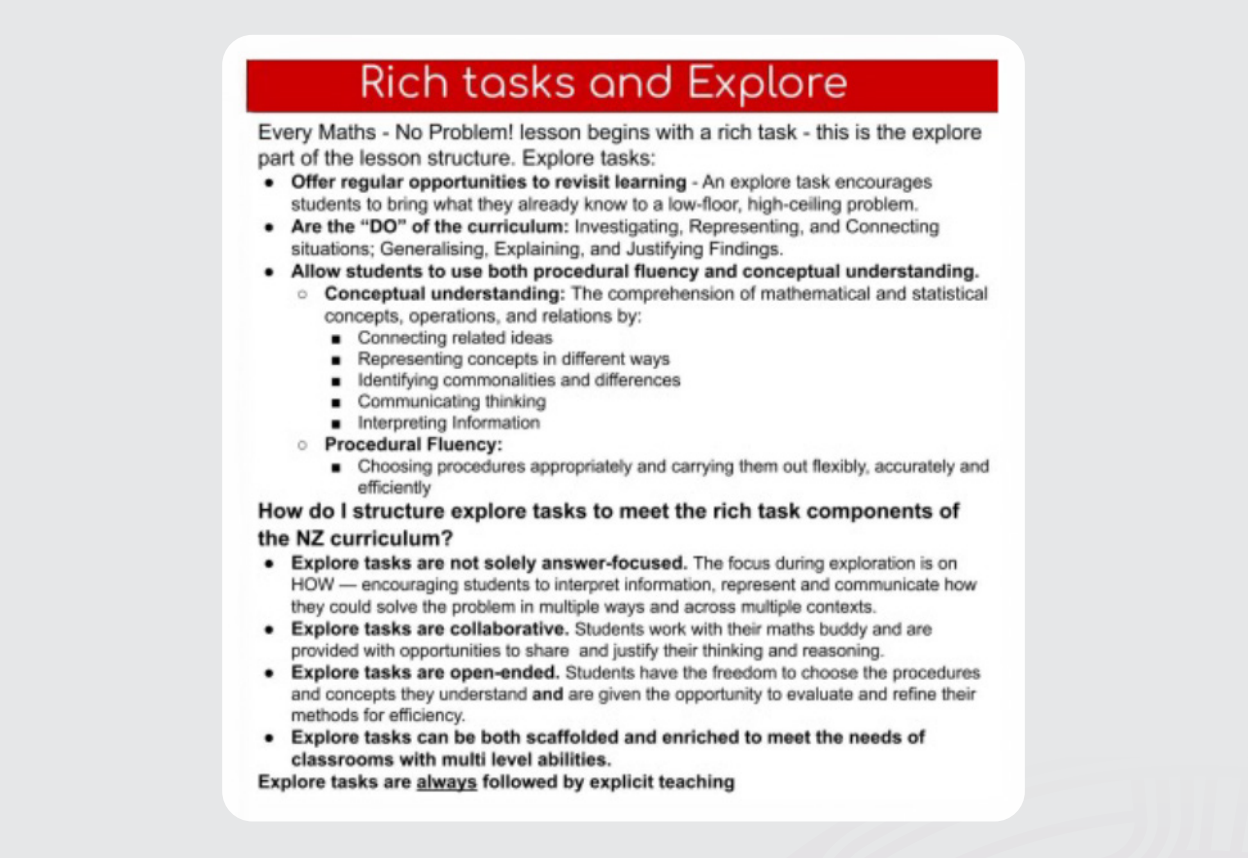
Each MNP lesson opens with an ‘Explore’ task. These are designed to be low floor, high ceiling tasks.

These tasks are rich through teachers’ delivery and the expectations set around them. The expectation is not just around finding the answer but finding multiple ways to solve the Explore task and encouraging students to reason and justify which is the best/most efficient way to the solve the problem.

The ‘Master’ section will follow this up with explicit teaching and modelling of specific strategies that would be developmentally correct for solving the problem and presents another opportunity for teachers to develop metacognitive behaviour and reasoning/justifying with questions like:

- Did our friends use the same methods as we did?
- If not, why do you think our friends chose this method today?
- Do you think our friend’s method would always be a useful method or does it just work for today’s problem?
- Which method do you think is the best/most efficient and why

A rich task on its own doesn’t explicitly teach maths that is accessible to all (yes, there are some children who would be able to pull the maths understanding out but many would be understanding what they did rather than what they learned), which is why we must follow an Explore task with explicit teaching.



Promote flexible grouping in daily lessons

We encourage teachers to use flexible grouping in the whole class setting. This allows teachers to differentiate their support and provide extension while ensuring students are moving through the content at broadly the same pace.