



The Wilkie Way

Newsletter April 2022

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Literacy & Communication and Maths Strategy

This document was released on 24 March 2022. It is important that every teacher reads this document and understands the implications it could have.

Literacy & communication and maths are foundational areas of learning from early learning through to senior secondary school. This strategy's focus emphasises more explicit attention to literacy and numeracy in learning across the curriculum, which supports learners to better access its richness.

This is not the same as a focus on literacy and numeracy at the expense of other learning areas but to see and make use of literacy and numeracy learning opportunities in the other learning areas.

Where teachers have generally recognised the need for literacy in other learning areas and our current curriculum gives one whole page to language across all learning areas (page 16) teachers have been less likely to see and make use of the mathematics learning opportunities inherent in all other learning areas.

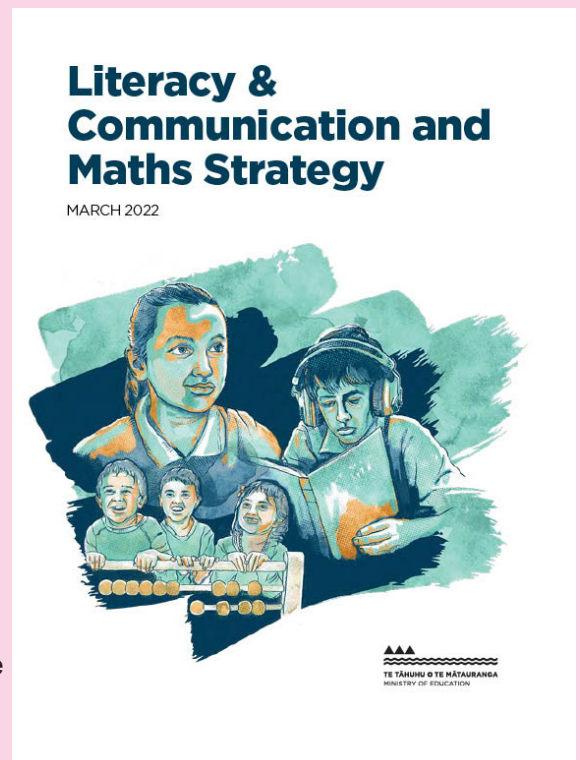
The societal perceptions of school mathematics by the current adult population as hard and pointless leads many significant people publically saying they were no good at maths or they always hated maths. This attitude has a profound impact on maths learning for our tamariki.

The strategy recommends a national campaign to raise the profile and value of critical numeracy and to promote the opportunities provided by maths rich pathways. I would like the campaign to accentuate the need for mathematics in EVERY pathway from engineering to a supermarket worker stacking shelves, to managing a household budget.

Numeracy demands are steadily increasing as we live in a world of rapidly changing technology and employment opportunities requiring more complex use of an ever increasing sea of data. The world we live in requires people to think creatively, critically, strategically and logically; all types of thinking that should be developed in a rich mathematics curriculum. The way in which the mathematics is taught should be developing skills like problem solving, logic, deductive reasoning, abstraction, spatial reasoning, creative thinking and communication as well as ways to think about data, information and living with uncertainty.

Completing workbooks of exercises, practising procedures and calculations and simple one step word problems will only develop one of the five mathematical proficiencies and will quickly become pointless as students see little connection to the real world as calculations become an end in themselves.

While procedural fluency is a nice to have, technology increasingly carries out procedures if this particular proficiency is a learning difficulty as in students with dyscalculia or other memory retention issues.



All students, given the learning opportunities and appropriate support and scaffolding can develop the other important mathematical proficiencies of conceptual understanding, adaptive reasoning, problem solving and a productive disposition.

This document talks about the common practice model - all PLD will be aligned with the common practice model and the common practice model will be incorporated into approaches for teaching, assessment and learning used by initial teacher education providers. (Not quite going so far as to acknowledge the current initial teacher training is insufficient?)

Quite what the common practice model approach actually is I am still trying to find out but the document implies there will be new support documents and “someone” will design and develop professional learning for the workforce that is **targeted, flexible and aligned with the common practice model**.

ECE will have early learning practice and progress tools which make explicit specific aspects of language, literacy and maths learning and how these may change and develop over time. The new curriculum refresh will describe learning through a new Understand. Know. Do content model and progress outcomes.

Learning progressions will replace the existing mathematics learning progressions providing clarity and detail about curriculum expectations for the purposes of teaching and learning along a whole schooling pathway (including senior secondary)

Teaching, Assessment and Learning Guides replacing the existing Effective Literacy Practice resources and the current range of maths resources (Figure it Out? as there hasn't been an effective numeracy practice book ever published by MOE) to help teachers to understand and use evidence-informed approaches to teaching and learning.

Strategic Leadership Guides (new) to support leaders to create and sustain the conditions to embed use of the common practice model. (Someone will write you a guide on how to do it when they know what it is?)

Assessment practices and tools - updated to align to new progressions and better meet the needs of learners and teachers. support formative assessment for teaching and learning. Incorporate a “safety net” approach to avoid learner needs being missed and unmet.

This document has everything, looks good, well put together into 5 focus points incorporating a total of 20 specific items of things to be done.

By whom? Current PLD providers haven't necessarily been included so who will provide the professional learning for the workforce. Who are the subject experts who are going to create all the documents and build systems and train the workforce?

There are no time lines given for implementation other than 2023 for the curriculum refresh which is not part of this document.

This is a lovely idealistic document but how much and how well it is ever implemented remains to be seen.

Meanwhile - if you want guidance on how to deliver a rich balanced curriculum that is flexible, aligned with learning progressions, written specifically for NZ schools, research based, teacher and student friendly -



Available from Edify.co.nz

New Resources for Wilkie Way Members

Subscriptions purchased at the online store at www.wilkieway.co.nz

Individual \$45 - paid via paypal

NZ School paid via invoice - complete form at online store

Up to 100 students \$150+GST

101 - 300 students \$250 + GST

300+ students \$350 + GST

Non NZ School \$400 - paid via paypal



Student Resources

Addition and Subtraction

Assisting students to develop additive thinking at Signposts 5 and 6

A series of teaching/practice problems with teacher notes

Write an equation for the number story

Mia ate 5 cookies from her lunch box and 6 more cookies when she got home.
How many cookies did she eat altogether?

Write an equation for the number story

Niko had 8 marbles and he won 6 more marbles.
How many marbles does he have altogether?

Write an equation for the number story

Maria took 6 books back to the library. David took 7 books back to the library.
How many books were taken back to the library?

Write an equation for the number story

There were five of pear.
How many t

Write

5 girls and 7 boys went on the school bus.
How many children are on the bus?

Write

Mafeo had more than 1
How much r

Teacher Guide

Students working in Additive Thinking Signpost 6 are working with two and three digit numbers. To be proficient they should be able to apply basic addition and subtraction facts to 20, use standard place value partitioning and use a number in its sequential position in the number system. They should have developed the understanding of the usefulness of the decade numbers and hundreds numbers (powers of 10) in the number system.

Signpost 6: (Definition from learning progression framework)

The students solve problems involving two- and three-digit numbers, in which the mathematical operation is transparent in the wording, by applying a strategy from a limited rehearsed repertoire. The strategies are most likely to involve place-value partitioning, or compensation when the number is close to a tidy number.

The developing knowledge and skills include:

- Recall or derive addition & subtraction facts within 20
- Name columns in whole numbers place value
- Know the value of the digit from its position in a number
- Can read and write larger numbers
- Can sequence and order three digit numbers
- Expand a number to a standard partition $234 (200 + 30 + 4)$
- Know the number of tens in a three digit number
- Explore the nesting of groups of ten by regrouping a standard partition $200 + 30 + 4 = 100 + 100 + 14$
- Round 3 digit numbers to the closest hundred and closest decade

In communicating their thinking processes students should be moving from number lines to using symbols for expressions and equations. Learning to use symbols is just as important as working mentally.

Using symbols and expressions to think mathematically

Signpost 3: (Definition from learning progression framework)

The students record equality and simple inequality statements for additive and multiplicative problems and can explain their thinking. They are able to read equality and simple inequality statements and can suggest appropriate problem contexts.

Signpost 4: (Definition from learning progression framework)

The students read and record additive and multiplicative equality and inequality equations for problems involving unknowns. They are able to suggest appropriate problem contexts for equations involving unknowns, and they recognise the need to use an inverse operation to find an unknown. (problem sets f, g)

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Teacher Professional Resources

Professional Readings

Powerpoint and Printed Guide to assist you to connect the current curriculum documents with the current learning progressions for mathematics.

Connecting the documents
by Charlotte Wilkinson

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Teacher Professional Development

Mathematics Learning Progressions
(curriculumprogressions.education.govt.nz)
for Teaching and Learning

Focus Area:
Learning Progression Framework (LPF) for Mathematics

created by
Charlotte Wilkinson
wilkieway.co.nz

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April Featured Resource

Student resources: Special Occasions - Easter

find problems and dice and counters games with an Easter theme.

Chocolate Eggs

If it takes 10m of coloured foil to wrap 40 chocolate eggs, how much foil will you need to wrap 100 eggs?

Chocolate Eggs

If it takes 18m of ribbon to tie round 30 parcels. How many metres of ribbon would it take to tie round 45 parcels?

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Easter Doubles: How to Play: You will need a 1 - 6 dice and some counters each. Take it in turns to roll the dice. Find the picture to complete a double using your number. Put a counter on the picture. Who can collect the most pictures?

Designed by Charlotte Wilkinson

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The Wilkie Way Teacher Challenge

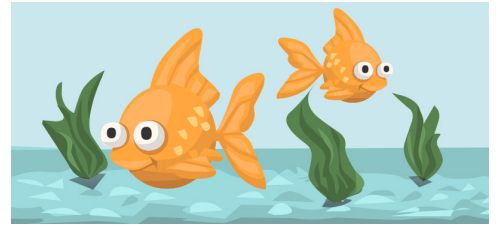


Keeping Fish

You were given some fish and some fish tanks.

If you put 5 fish in each tank there are two fish left over but if you put 6 fish in each tank one tank is left empty.

How many fish and how many fish tanks were you given?



Becoming a member of Wilkie Way

The increase in the number of individuals and schools using Wilkie Way resources is fantastic and enables me to keep subscriptions at a reasonable rate despite significant overhead increases in maintaining the site.

Schools who use the site for whole school consistency and progression find they have access to whole school coverage plans ensuring the curriculum is covered across the primary years. The unit plans provide teachers with both concept development and key knowledge and specific learning progressions allowing daily planning to be responsive to formative assessment as it happens in the classroom.

While many individuals also use the plans it is when it is used across the whole school you will be more likely to achieve consistency and continuity. Plans are in word so it is expected that you "tweak" to suit your local curriculum. Student tracking sheets provide effective communication between classes. Powerpoints to support in school PLD on professional practice from training teacher aides to an ethic of care.

A reminder that an individual subscription does not allow you to share plans, student tracking sheets or powerpoints across the school. This is a breach of the terms and conditions of an individual membership.

- Teacher content knowledge is supported with guides to specific areas of mathematics (and reference back to NZMaths where appropriate)
- Professional readings to enhance teacher knowledge
- As well as an extensive range of resources to use with students - games, activities, equipment masters, problems, short workbooks, posters and many with teaching notes and where appropriate answers

School subscriptions are based on student numbers:

Up to 100 students \$150 + GST

101 - 300 students \$250 + GST

300+ students \$350 + GST

**Send me an email charlotte@ncwilkinsons.com with a request for a school subscription and your school size and your teachers can create accounts and start using the resources immediately (Using their school email address)
An invoice will be sent to the school for payment in the next payment round.**