



The Wilkie Way

Newsletter June 2019

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New Wilkie Way Assessment Resource Level 1 Assessment Screen

Schools who have been using the level 2 - 4 assessment screens requested the development of a screen to capture the necessary knowledge and skills for students to be successful at level 2 of the NZ curriculum. Hence the development of the level 1 assessment screen.

This screen captures students working at mid to upper level 1 and into early level 2 and identifies gaps that may hinder student progress.

It assesses:

- Knowledge of counting in ones, forwards and backwards and using 10 as a counting set (place value).
- Addition and subtraction : doubles, 5+ and 10+, additive structure of the number system (place value) and the repeated pattern of basic facts in the tens column.
- Multiplication and Division: Counting in 2s, 5s and 10s and equal grouping. Multiplicative structure of the number system (place value) and recall of $\times 2$ and $\times 10$

One of the trials was with struggling students in years 4 - 8 and a very consistent pattern emerged.

All students could complete the addition and subtraction - some had recall but if not all then some were recalled and some completed using counting on or back.

All students could rote count in 2s, 5s and 10s

The group of students who were stuck at overall upper level one had common gaps

- Using 10 as a counting set
- Equal grouping
- Place value multiplication - how many groups of ten in a decade number and/or any two digit number

A sub group of these students were also struggling with counting backwards through the decade.

Students who completed the assessment and scored early level 2 also attempted the level 2 assessment screen.

Students who scored low on the multiplication section of the level 1 screen were unable to complete much in the place value section of the level 2 screen. Students who had the early multiplication showed a better understanding in the place value section of the level 2 screen.



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NZ Curriculum Mathematical Number Knowledge & Skills Screening Assessment Level 1 Odd Year

Student Name _____

Year Group _____

Area of Mathematics	
Whole numbers	/18
Addition & Subtraction	/20
Multiplication & Division	/12
Total	/50

Comments:

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All students (except 1) scored at early level 2 on the level 2 screen as there was no further development of multiplicative thinking. The student who scored mid level 2 showed a greater understanding of multiplication and place value knowledge. Addition and subtraction was still the highest scoring area as students can count on.

Looking at the classroom programme for these struggling students - teachers have erroneously continued to focus on addition and subtraction and recall of basic addition and subtraction facts when the data shows that their need is multiplicative thinking.

While students still need to continue to practice recall of addition and subtraction facts the teacher cannot teach recall. Practice over time (distributed practice) will eventually get the facts to long term memory. However the student is responsible for putting in the practice.

Using actual student data to inform a learning programme for students is the best use of time available for deliberate acts of teaching to move student thinking forwards.

A Guide to the Assessment Screens

Level 1 Screen (50 questions)	Level 2 Screen (100 questions)	Level 3 Screen (100 questions)	Level 4 Screen (100 questions)
Whole numbers (counting) Addition/Subtraction Multiplication/Division (counting and equal grouping)	Whole numbers (<i>PV grouping & sequencing</i>) Addition & Subtraction Multiplication & Division (<i>Equal grouping & array thinking</i>) Fractions	Whole numbers (<i>large numbers, PV grouping & sequencing</i>) Addition & Subtraction (<i>mental, efficient additive methods & estimation</i>) Multiplication & Division (<i>Basic facts, efficient multiplicative methods</i>) Fractions Decimals & Simple percentages	Whole numbers (<i>PV x10 std form</i>) Addition & Subtraction (<i>mental, efficient additive methods & estimation</i>) Multiplication & Division (<i>Primes, factors, multiples, mental, efficient multiplicative methods, estimation, exponents</i>) Fractions Decimals & Percentages
Student working at Early Level 1 - Early Level 2	Student working at Mid Level 1 - Early Level 3	Student working at Mid Level 2 - Early Level 4	Student working at Mid Level 3 - Early Level 5
Early L1 0% - 6% Mid L1 8% - 30% Upper L1 32% - 78% Early L2 80% - 100%	Mid L1 0% - 8% Upper L1 9% - 24% Early L2 25% - 50% Mid L2 51% - 74% Upper L2 75% - 90% Early L3 91% - 100%	Mid L2 0% - 12% Upper L2 13% - 34% Early L3 35% - 56% Mid L3 57% - 80% Upper L3 81% - 94% Early L4 95% - 100%	Mid L3 0% - 15% Upper L3 16% - 37% Early L4 38% - 60% Mid L4 61% - 79% Upper L4 80% - 94% Early L5 95% - 100%
Beginning Year 3	Beginning Year 4 Beginning Year 5	Beginning Year 5 Beginning Year 6 Beginning Year 7	Beginning Year 7 Beginning Year 8 Beginning Year 9

The percentages shown in the chart are the overall scores. Scores are given for each section of the screen so students may be Upper level 3 in addition and subtraction but mid level 2 in fractions knowledge. The results will give a focus for your classroom programme.

The level 1 odd year assessment screen is currently on an introductory special price of \$75.00 for a pack of 35 screens.

Order by email: wilkieway@ncwilkinsons.com with school address and number of packs required.

Small schools may order individual copies at \$3.50 per copy.

Limited packs of odd year level 2, 3 & 4 screens are in stock at \$120 per pack.

Order at the online store at www.thewilkieway.co.nz or by email to wilkieway@ncwilkinsons.com

The early bird price for even year screens will be \$100 for a pack of 35 screens.

Even year screens will be available to order from term 3 for delivery during term 4 (as I will be overseas from December to February)

Thinking about Maths PLD 2020

Nearly halfway through 2019 and I am having to begin to think about 2020 as I will be out of the country from December through to the beginning of February.

If you are considering Mathematics Professional Learning for your school next year then please get in touch with me now. I have a list of schools from 2018 whom I will be making contact with in the next few weeks. I work on a first come first served basis with roll over schools having first option. As I have a few schools coming to the end of their PLD this year there are some spaces for next year.

I can deliver centrelling funded PLD as an accredited facilitator (ACC N0. 654). I will also have completed MOE training for facilitators in using the curriculum progress tools for curriculum design.

Contact: charlotte@ncwilkinsons.com or 027 3443963



The Wilkie Way Teacher Challenge



Can you remember 1978?

This was a very special year for playing with numbers

When you add 19 and 78 you get the two middle digits 97

When is the next very special year for playing with numbers?

(A good investigation for practicing addition strategies with a purpose)

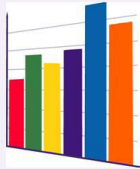
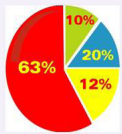
Answer in next newsletter.



New resources for Wilkie Way members
School subscription just \$275 p.a
contact charlotte@ncwilkinsons.com to subscribe by invoice
Individual subscription \$30 via paypal at www.thewilkieway.co.nz



Getting Sorted Statistical Investigations



Presented by Charlotte Wilkinson



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A new powerpoint for teacher content and pedagogical knowledge building. Use for a practical staff meeting or on a teacher only day to extend teacher knowledge of statistics and ways you can introduce students from year 1 to year 6 to sorting multivariate data.



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NZ Curriculum Screening Assessment

Teacher Guide & Answers

Mathematical Number Knowledge & Skills

Level 1

(Shows where student is operating between
Early Level 1 and Early Level 2)

Odd Year

- Whole numbers
- Addition & Subtraction
- Multiplication & Division

The level one odd year assessment screen teacher guide is now available on the website. The teacher guide explains what is being assessed and will also direct you to the resources that can be used for students who need to learn key knowledge areas necessary for further progress.

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