

the home of smart teaching



Catalogue and information

www.Edushop.nz

0 800 678 581

admin@Edushop.nz

Numicon briefly!

Join our courses & zooms to get a better understanding...

Why Numicon?

- Maths involves abstract ideas
- Maths involves spotting patterns and making generalisations
- It requires the understanding of number relationships

Written numerals and symbols do not make this easy...

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7

seven

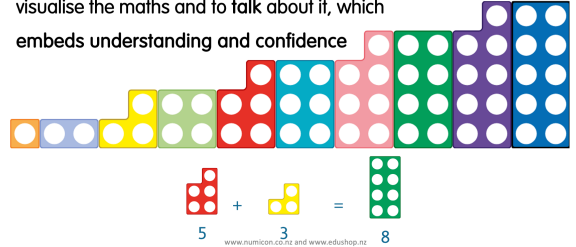


www.numicon.co.nz and www.edushop.nz



Why Numicon?

Numicon shapes enable the children to visualise the maths and to talk about it, which embeds understanding and confidence



www.numicon.co.nz and www.edushop.nz



Progression

If number knowledge is well-embedded from the start through the use of structured apparatus, children can use their number fact knowledge to access more complex areas.



If this is 10...

What does this show?

5 is $\frac{1}{2}$ of 10



If this is 1...

What is this?

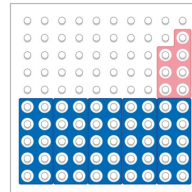
$\frac{1}{10}$
0.1
10%

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Progression

Children can also use structured apparatus for concepts such as percentages and equivalent fractions

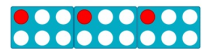


If the board is 1,
what does this
show?

57%
57/100

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The counters show that:



$\frac{1}{6} = \frac{2}{12} = \frac{3}{18}$



Progression

Children can use Cuisenaire rods to help them visualise new concepts involving algebra and percentage increase.

How is this sequence increasing?



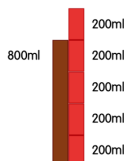
Each shape is made up of the square with another rod added on top.

$1^2 + 1$ $2^2 + 2$ $3^2 + 3$ $4^2 + 4$

Using 'n' for the number rod, we can write the nth term as... $n^2 + n$

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How can we find 25% extra?



To increase a number by 25%, we can show the proportions with rods.

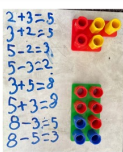


Maths – structured , like learning literacy

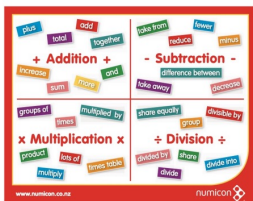
- 'Maths is not just acquiring maths content BUT to also improve learning ability.
- Phonemic awareness in Literacy is a parallel process to decomposition/recomposition of numbers in Numeracy.
- Mastering the decomposition/recomposition of numbers makes the difference in maths. It is the key.
- Mastery means the presence of : 1. appropriate language 2. efficient, effective & elegant strategies, 3. fluency, 4. the ability to apply'

Mahesh Sharma, 2022

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Making 100 with Adding Facts to 10



Cheese sticks have a mass of 50 g each. I have a pack of 4 cheese sticks. How much does the whole pack weigh? (GMS 3)



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Use the QR code to download a set of shapes



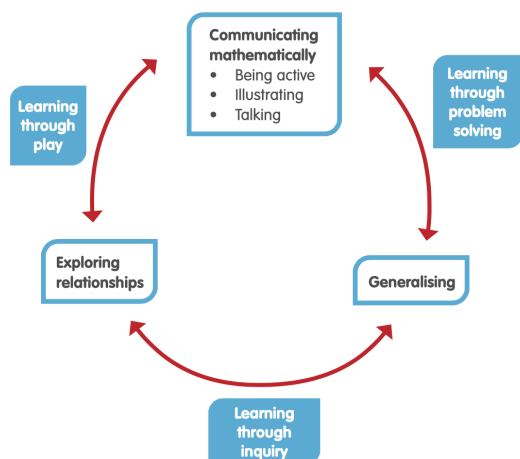
Join our zooms and courses (free and paid) throughout the year

www.numicon.co.nz and www.edushop.nz



Numicon follows an approach encouraging the **conversations** of ourselves and others to notice and explain relationships and patterns in Mathematics.

As children explore the apparatus and make **connections** within the maths, they can generalise their understanding to apply to **problem-solving** situations in their local context.



Decades of international research behind Numicon

Tony Wing writes... Communicating is at the heart of doing mathematics along with exploring relationships and generalising.

Anna Sfard writes... Mathematics is a discourse of relationships

Richard Skemp wrote... Maths needs to be explored as concepts as well as what to do with them – relationally and instrumentally

Vygotsky wrote... start with what they know and build on this incrementally

Davydov wrote... Number and measurement activities together build a deep sense of 'number'. Putting numbers on a number line and using them to measure link together and demonstrates **mastery**. Linking movement with learning is powerful helping children to make connections, as well as thinking about and reflecting on their learning

Bruner wrote... Children are visual learners. They bring meaning to the abstract through engaging with tactile and visual representations first.

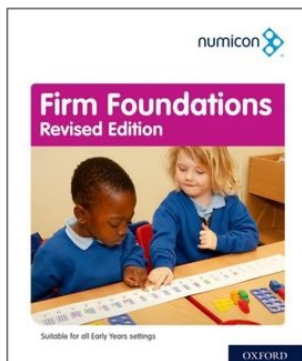


Progressions...
Learners as Explorers

STARTING PLACE SUGGESTION - ALL SETTINGS

NZC Levels	1	2	3	4				
MAINSTREAM EDUCATION								
Year Levels	0/1	2	3	4	5	6	7	8
Numicon Books	Firm Foundations	Numicon 1	Numicon 2	Numicon 3	Numicon 4	Numicon 5	Numicon 5	Numicon 5/6
Apparatus Packs	Firm Foundations	A	A	B	B	C	C	C
Numeracy Stages	0-3	1-4	5	6	7-8			

New Entrants & Year 1



OXFORDOWL

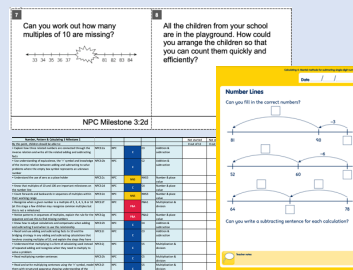
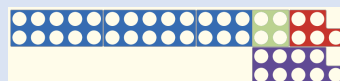
Firm Foundations Online

AND

Numicon Online

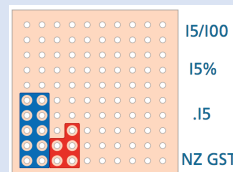
All teaching resources are online as digital files

- Planning formats
- Videos to help you implement and teach
- Interactive software
- Assessment files
- Bar Modelling lessons and videos
- Photocopy Masters for games and activities

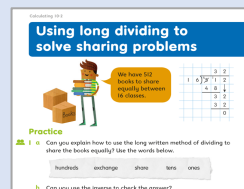


IWB

A teaching tool and activity designer



Pupil Book – opening questions for discussions and problem solving...



Years 2 – 8 – all strands covered

Number including Measurement in Calculating



Geometry, Measurement, Statistics



School & Classroom Packages

Gold, Silver or Bronze to implement Numicon.
Each class includes:

- Numicon Online – shared subscription
- Firm Foundations Online – shared subscription
- Teaching Packs
- Explore More Games for further fluency & extension
- Pupil Books for problem-solving investigations
- Apparatus packs x 2
- Mastery Table Top Packs x 2
- Pan Balance x 2
- Bonus Gift of maths resources (Gold only for your library)

Apparatus Packs — classroom resources as **starter** packs



Juniors \$740.00



Middles \$645.00



Seniors \$640.00

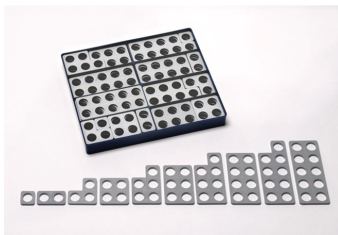
Recommended Extras— to supplement the Apparatus Packs



Mastery Pack
Junior \$240



Mastery Pack
Senior \$240



Grey Shapes \$80.00



Black & White Pegs \$30.00



Pan Balance \$50.00



Cuisenaire Rod Trays \$35.00



Feely Bag \$20.00



Spinners \$15.00

Professional Learning and Teaching & Classroom Packages to implement Numicon well into your school

We are committed to delivering quality professional development planned in conjunction with your school. We invest with you to implement Numicon, a mastery approach to teaching Mathematics to:

- Understand and use a well-researched programme as a structured approach
- Provide demonstration lessons, bringing out the richness in conversations, helping children make connections and love maths
- Model Maths Processes and support teachers in their planning and assessment
- Spread and infuse the joy of teaching and learning with confidence

A whole school approach is the most effective implementation.

Our 2023 packages help you plan and budget to make a positive change for your teachers and children. These can be modified to suit your needs. Call us.



A school committed to mathematics excellence for all children along with capable and confident educators

- Two years PLD to successfully implement Numicon. This will give your teachers confidence as they build understanding and enjoyment with guaranteed raised achievement
- Numicon Online and Firm Foundations Online as additional or 'only' options
- Teaching and resources and Intervention (Optional) resources
- Classroom resources – 2 Apparatus and Mastery Packs per class
- Further online PLD
- \$40,400 for 10-classroom school. Other-sized schools and digital options -contact us



A school committed to mathematics improvement

- One year PLD to implement Numicon. This will give your teachers confidence as they build understanding and enjoyment with guaranteed raised achievement
- Numicon Online and Firm Foundations Online as additional or 'only' options
- Teaching resources and Intervention (Optional) resources
- Classroom resources - 2 Apparatus and Mastery Packs per class
- Further online PLD
- \$37,400 for a 10-classroom school. Other-sized schools and digital options – contact us



A basic introduction to Numicon

- One introductory day PLD to implement Numicon. This will give your teachers the starting point on their journey
- Numicon Online and Firm Foundations Online options to help your budget
- Teaching resources and Intervention (Optional) resources
- Classroom resources as a starter - 1 Apparatus and Mastery Pack per class
- Further online PLD
- \$21,000 for a 10-classroom school. Other-sized schools and digital options -contact us

Professional Learning Options 2023



Embed	Two years of Professional Development Learning with exploration, building your own Maths knowledge, staff mentoring, modelling, and guidance to build a strong collegial and classroom environment where everyone is enjoying Maths. <i>You may want to purchase a 'package'.</i>	\$9000
Implement 1	A full day of Professional Development Learning - a starting place to implement Numicon in your school where everyone is enjoying Maths. You will explore and build your maths knowledge and receive guidance to begin your journey.	\$1500
Implement 2	A full day of Professional Development Learning spread over three afternoons out of class time 3 x 2 hours - a starting place to implement Numicon in your school where everyone is enjoying Maths.	\$1750
Discover 1	A face-to-face full day course to examine the pedagogy, maths concepts and resources in the Numicon approach with others at a central venue. If your school hosts this course, there are benefits.	\$250
Discover 2	A full day course to examine pedagogy, maths concepts and the mastery approach using structured apparatus. You will build an enhancement of your staff's own Maths knowledge, receive guidance in including students who require additional teaching or extension. This course will enable you to begin the Mastery approach in your school so that everyone will enjoy Maths. <i>You may want to engage a Ministry-accredited facilitator to provide this PLD and ongoing support. Contact Maths Associates.</i>	\$1500
Discover 3	Online Numicon Professional Learning – a general course via Edushop or a bespoke course for your team or school designed to support your staff along their Numicon journey. The hours will be agreed along with mutual planning	Free and Paid

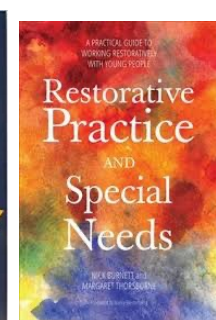
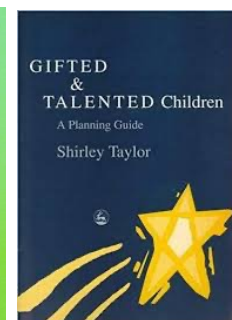
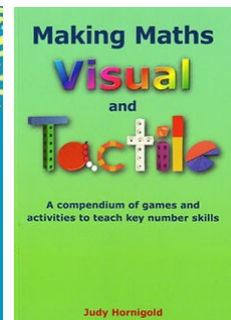
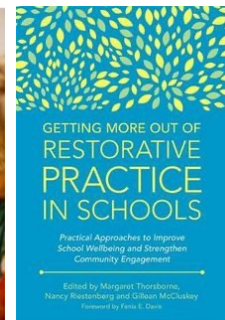
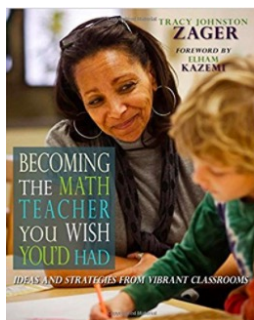
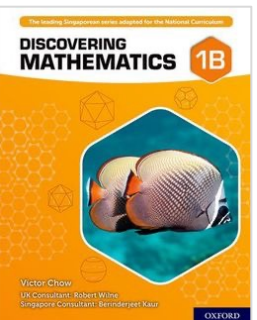
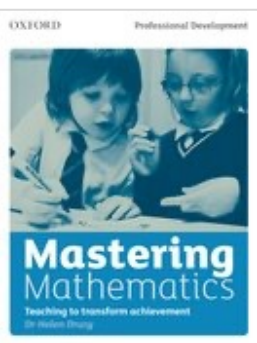
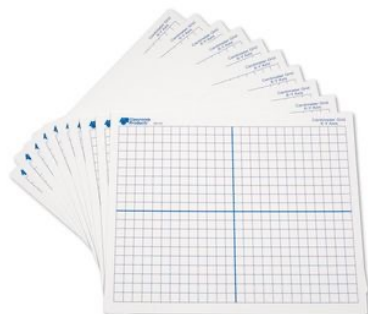
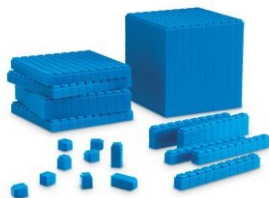
Note:

- You can extend your full day of introduction to a full year's PLD with all the benefits.
- You can buy a Purchase and PLD Package with prices to match your school size. Contact our office or consultants for more details.
- All options are subject to our consultants' availability.
- Our consultants are keen to discuss these options and any variations to suit your needs.
- Travel and accommodation costs are additional to the price. You can combine with other schools in your area to share the costs.
- All prices are exclusive of GST.

**See our website for further details.
We are here to help! Call us today.**

Visit: www.edushop.nz Email: admin@edushop.nz Phone: **09 579 7997**

More resources and books at





We are keen to work with you because we see the positive and data-changing results in every school! Contact us

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We are accredited as Numicon Consultants by Oxford University Press