Strategies for mental maths with Numicon

Numicon 1 - 4 (not a complete list)

- Look for patterns that add to 10, 100, 1000
- When adding 9, add 10 then 1 and extending to 100, 1000
- When adding 8, add 10 then 2 and extending to 100, 1000
- When subtracting 9, subtract 10, then +1 and extending to subtracting 90, 99...
- When subtracting 8, subtract 10, then +2 and extending to the 10's and 100's...
- Look for doubles +1
- Look for doubles 1
- Take away the zeros
- Change to the nearest 10 and then or + to adjust, and extending to 100, 1000

Numicon 5

- Looking for patterns in series to solve the next or missing pattern
- · Using inverse relationships to solve problems
- · Systematic thinking to solve problems
- Using generalisations about a number to solve problems through divisibility and linear sequence patterns
- Using equivalence to solve problems
- Reasoning logically to solve problems
- Strategies for bridging when adding and substracting rounding and adjusting, working in time and fractions, decimals
- Mental calulations with higher numbers
- Written methods for + x ÷
- Using arrays with partitioning and combining, using the distributive property
- Learning to collaborate strategies of soving problems together

Numicon 6

- Problem solving strategies in formal testing situations
- Using factorisation to solve x and ÷ problems
- Using the LCM and other common factors to solve problems
- Using algebra to solve problems
- Using factors and the associative property to solve problems
- Rounding and estimating when working with money
- Investigations using all of the above strategies with confidence and fluency in a variety of settings and strands

Numicon 1 Strategies within 10





Numicon 2 Strategies for addition and subtraction









Numicon 4, Using patterns and relationships

Learning opportunities

- To know that remembering sequences of multiples can help with finding missing terms.
- To know that finding a constant difference can help with finding missing terms.
- To notice connections between sequences of different multiples.

Words and terms for use in conversation

multiple, term, ordinal number words (e.g. first, second, third), interval, constant difference, sequence, increasing sequences, decreasing sequences, units-digit pattern, rule, scale

Numicon 5 Visualising fractions and percentages to solve problems

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Numicon 6 Sequences of solving problems- working systematically How Much?

Olive, Sreya and Vicki were having lunch. Olive and Sreya each had a carton of orange juice, but Vicki forgot hers. Olive gave Vicki a quarter of her juice and Sreya gave Vicki half of hers. Vicki ended up with 225 ml in her cup.



If Olive and Sreya both had the same-sized cartons to begin with, how much juice did each carton contain?

