Mathematics in the National Curriculum

- The National Curriculum for mathematics aims to ensure that all pupils:

- Become **fluent** in the fundamentals of maths.
- Can **problem solve** by applying their mathematics to a variety of problems.
- Can **reason** mathematically by following a line of enquiry and develop justification and proof using mathematical language.

What are the characteristics of a successful learner in maths?

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- From the early stages onwards, children should experience success in mathematics and develop the confidence to:

- Take risks
- Ask questions and explore alternative solutions without fear of being right or wrong
- Enjoy exploring and applying mathematical concepts to understand and solve problems.
- Explain their thinking to others in a variety of ways.
- Reason logically and creatively through discussion.

Numicon

Numicon is a flexible, multi-sensory whole-school resource used for teaching maths across all ability levels, using physical apparatus.

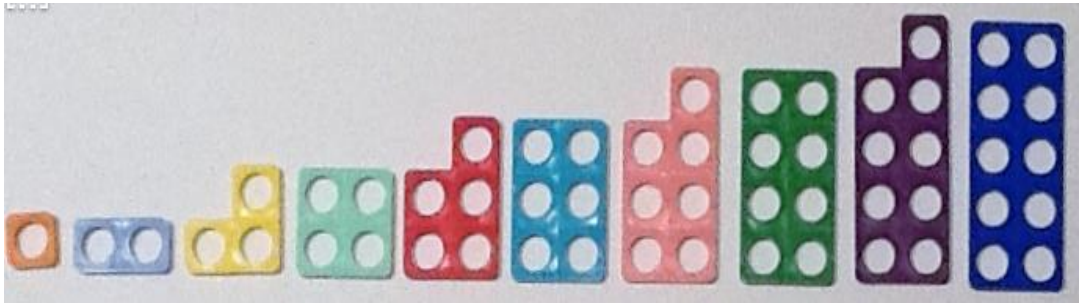
Numicon develops mathematics conversation, reasoning and problem solving skills and creates confident mathematicians.

It is created by teachers and experts in the field based on a proven Concrete Pictorial Abstract approach.

Ideas of how to use Numicon to support teaching and learning in a variety of areas in Mathematics...

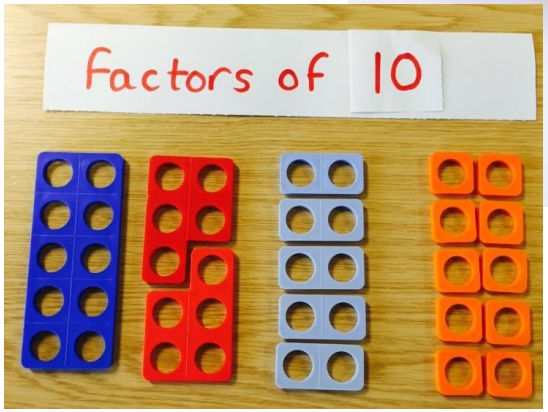
Numicon Games

- Ordering numbers to 10
- Find the missing number
- Which pieces have swapped places
- Matching number cards and written numbers to pieces.
- Feely bag games

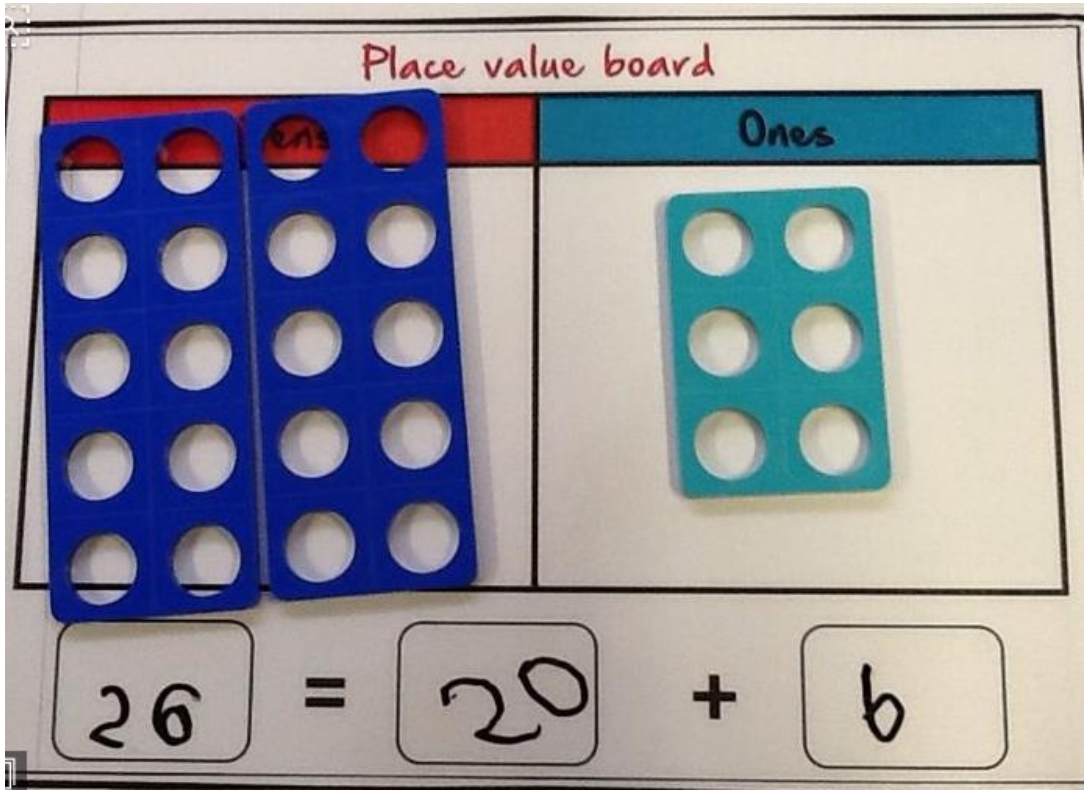


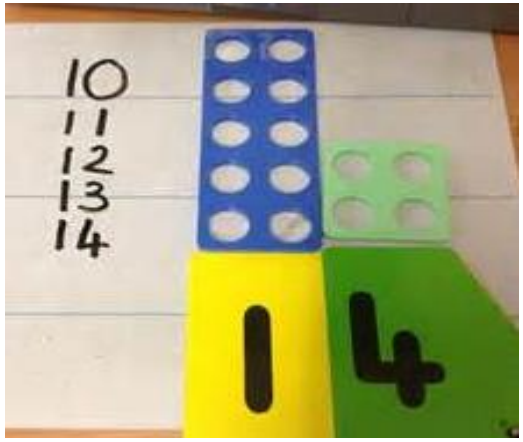
Number Bonds

- How many ways to make 10?

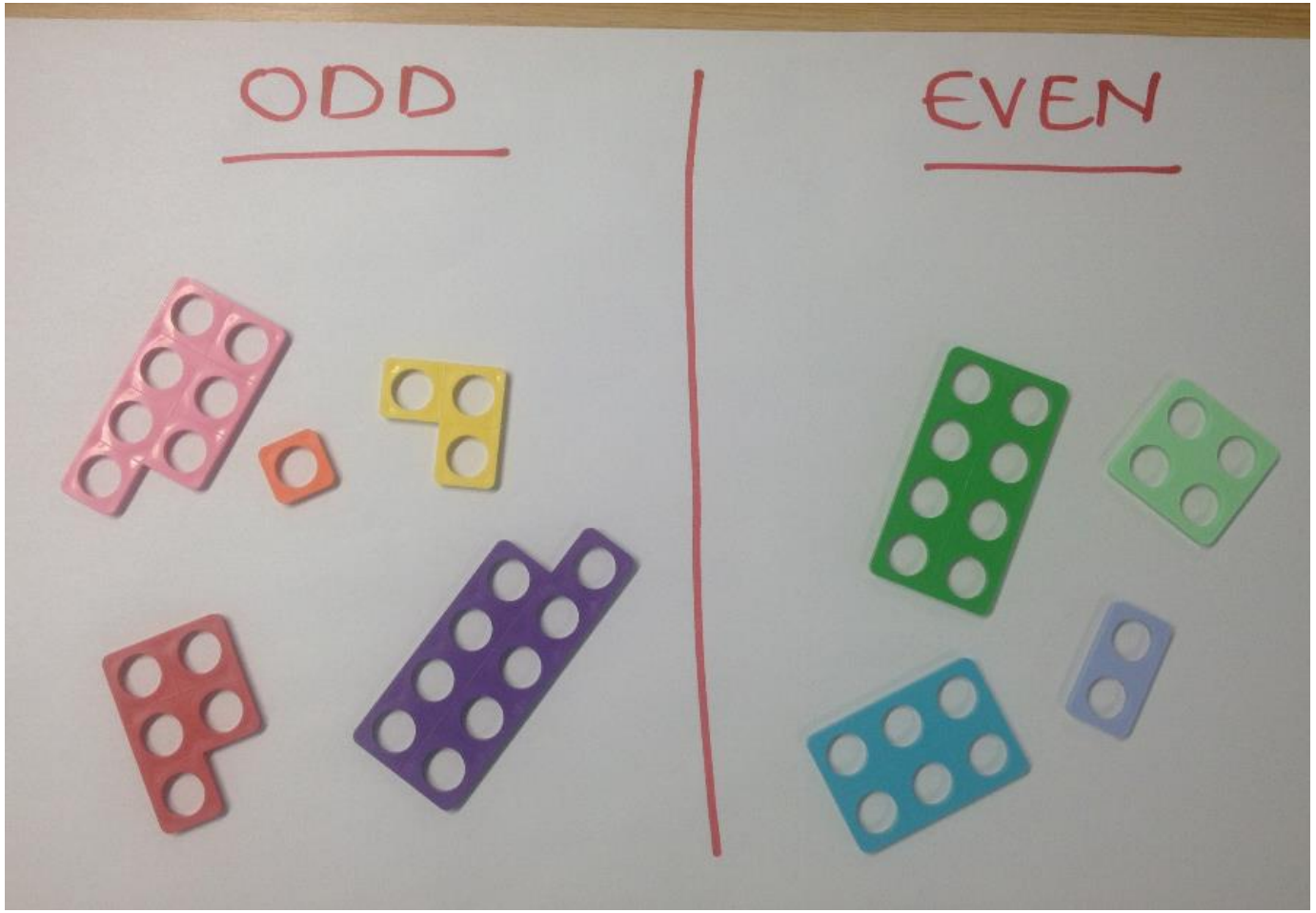


Place Value





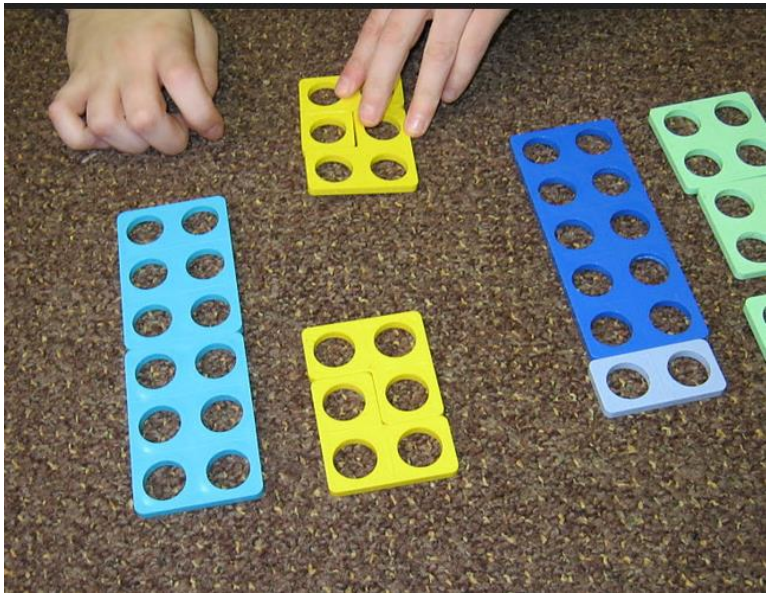
Sorting Odd and Even...

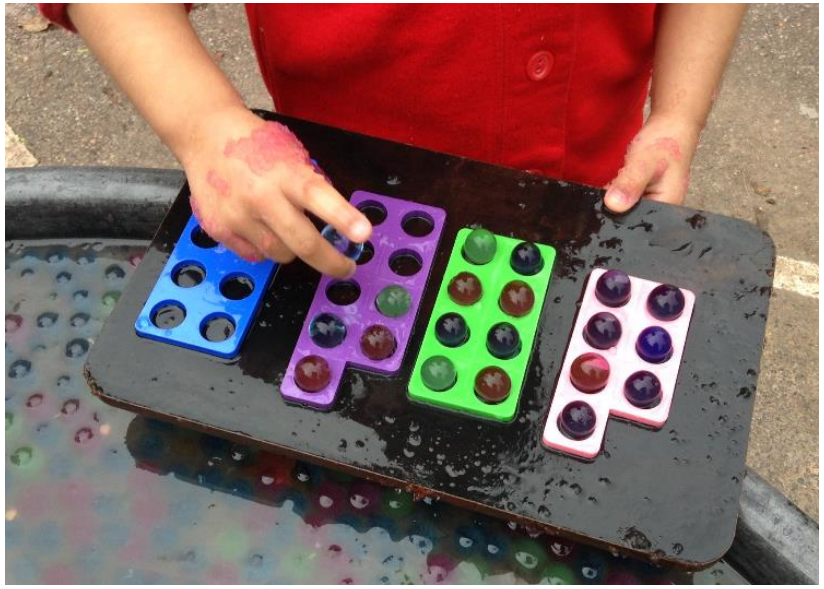


Doubling Using Numicon

MIRRORS AND NUMICON
FOR DOUBLING

Halving with Numicon





Building Number Sentences... Addition!

- Build me the problem :

6 + 3 = 9

If the answer to an addition problem was 8, what could the problem have been?

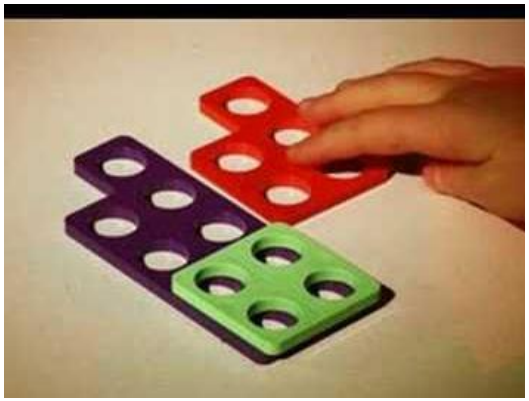
Build it!

How many ways could we do this?

Building Number Sentences... Subtraction!

- Build me the problem:

7 – 5 =



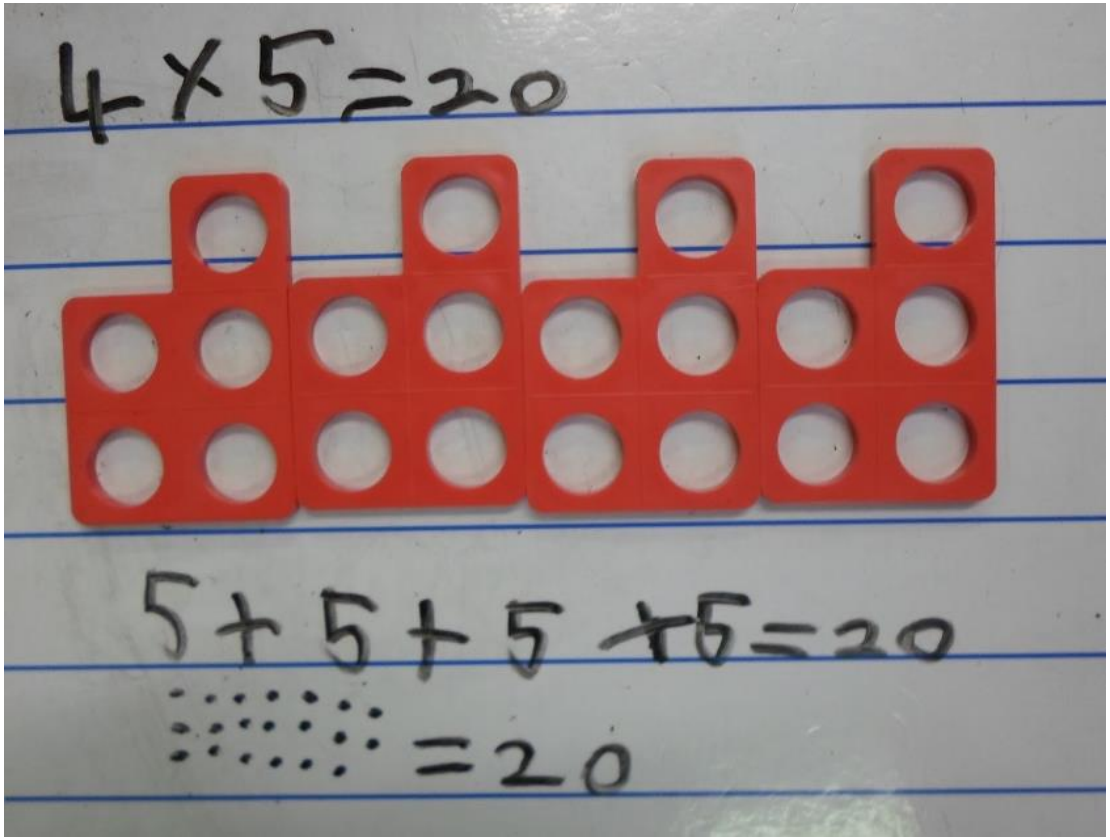
If the answer to a take away question was 6, what could the problem have been?

How many ways are there to reach this answer?

Multiplying with Numicon

- Build me the problem:

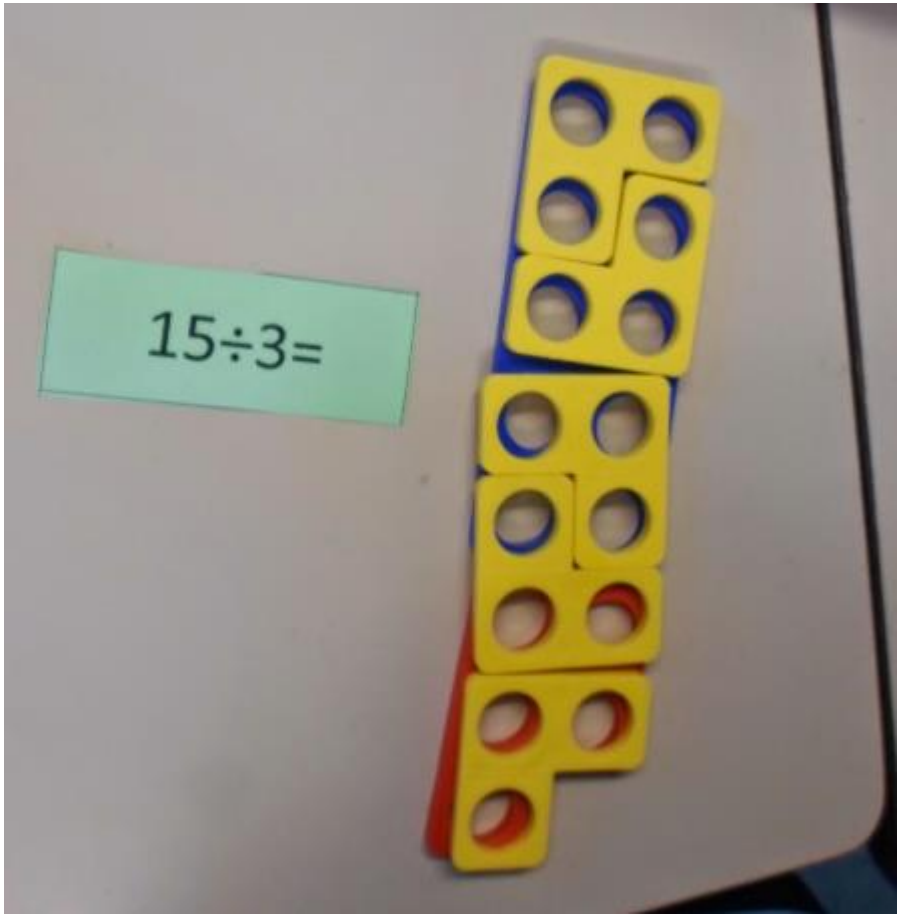
3 x 7 =



Dividing with Numicon

Build me the problem:

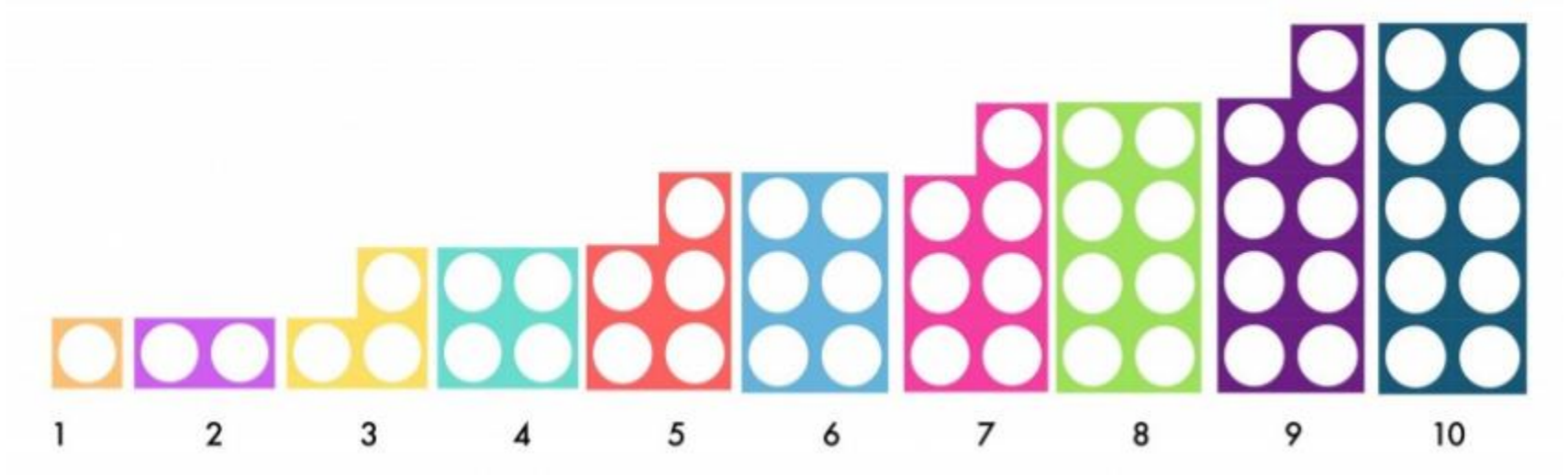
$12 \div 4 =$



Mastery in maths - Problem Solving

'If I add two even numbers together, the answer will always be even.'

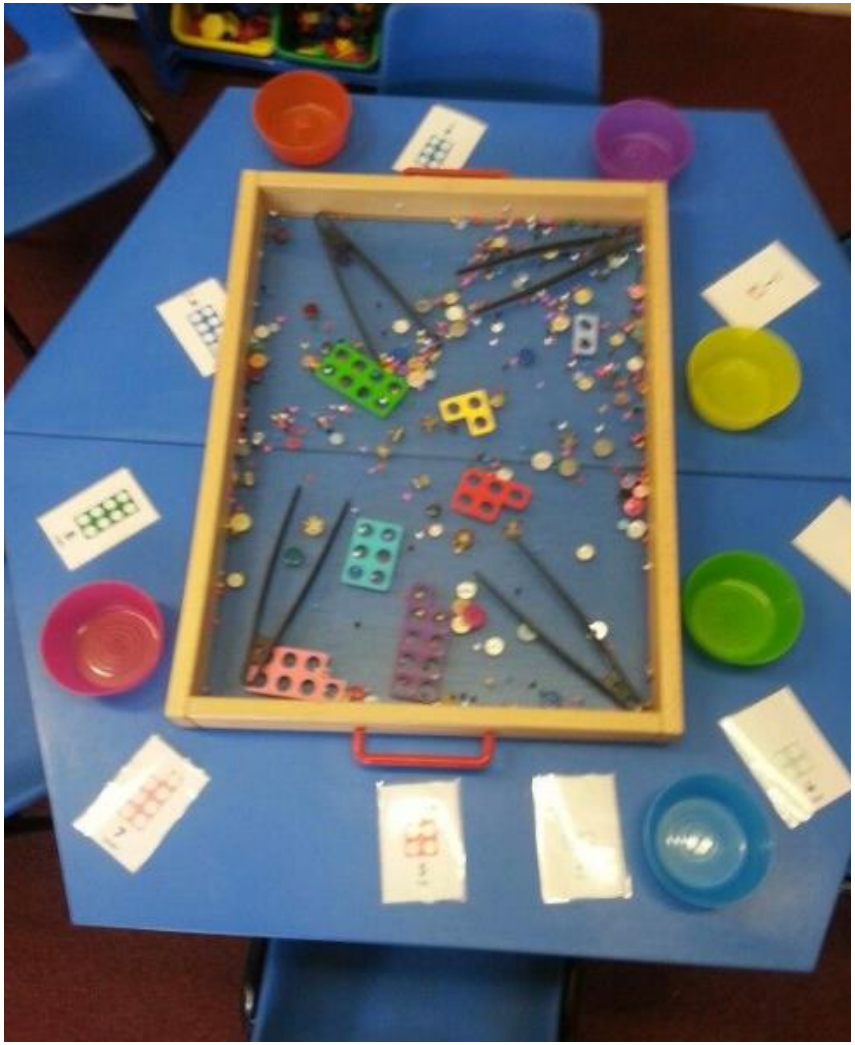
Build it and Master it!



‘If I subtract an odd number from an odd number the answer will always be odd.’

Build it and Master it!

More Numicon Fun!




Funky
Fingers
Can you use tweezers to fill the numicon shapes with magic beans?


DO IT RIGHT