

VISUAL NUMBER TEACHING TOOLS

6 **FREE** SAMPLE PAGES

(86 PAGES IN FULL PDF AVAILABLE via email from chrissie@all2you.co.uk

Discount Price **£3** ~~£4.78~~)

The aim of this book is to help those children who find the concepts of number difficult. These children often don't make the links and connections between the different arithmetic structures naturally and feel overwhelmed by a mass of separate facts to learn and a jungle of symbols to understand. Using a structured visual image approach, teachers find they have something concrete on which to apply, and repeat their explanations and the students begin to assimilate the language surrounding arithmetic structures and the symbols that represent them.

Structured visual images provide teachers with a bridge between the abstract ideas and real arithmetic applications.

The images support teachers explanations.

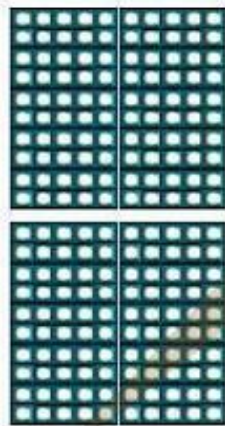
The book is primarily a teaching tool, but there are some photocopiable work pages.

I have avoided giving lengthy written explanations about the images as I believe teachers will use the images to support their own explanations.

Place Value

Place value with three digits

Hundreds



200

Tens

The first digit (on the left) in a 3 digit number represents the number of hundreds.



90

Ones (units)

The second digit (in the middle) in a 3 digit number represents the number of tens.

The third digit (on the right) in a 3 digit number represents the number of ones (units).



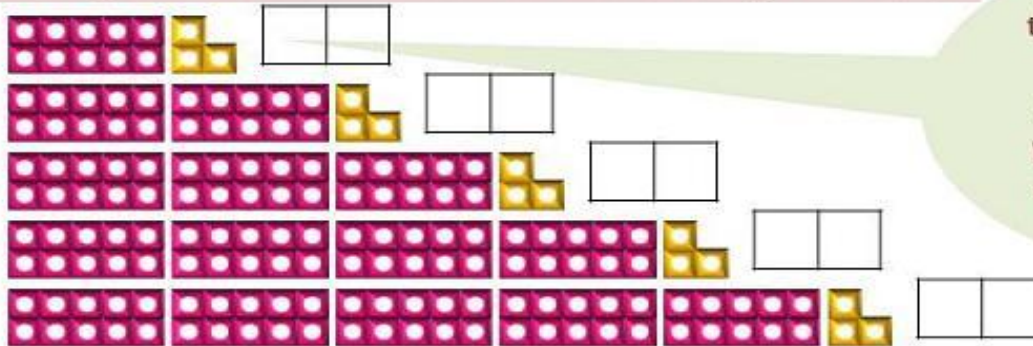
9

Two hundred and ninety nine.

299

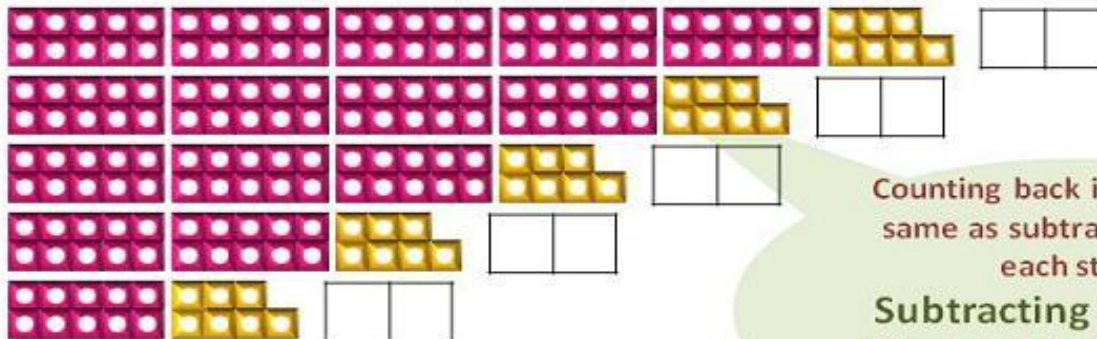
Place Value

Counting on and back in tens from a two digit number.



Counting on in tens is the same as adding ten in each step.

Adding 10 is easy
When you add ten the ones (unit) digit stays the same.



Counting back in tens is the same as subtracting ten in each step.

Subtracting 10 is easy
When you take ten away the ones (unit) digit stays the same.

Addition Bonds in 20

It doesn't matter which way
around an addition is done

$$19 + 1 = 1 + 19$$



$$20 + 0 = 20$$

$$10 + 10 = 20$$



$$19 + \underline{\quad} = 20$$

$$9 + \underline{\quad} = 20$$



$$18 + \underline{\quad} = 20$$

$$8 + \underline{\quad} = 20$$



$$17 + \underline{\quad} = 20$$

$$7 + \underline{\quad} = 20$$



$$16 + \underline{\quad} = 20$$

$$6 + \underline{\quad} = 20$$



$$15 + \underline{\quad} = 20$$

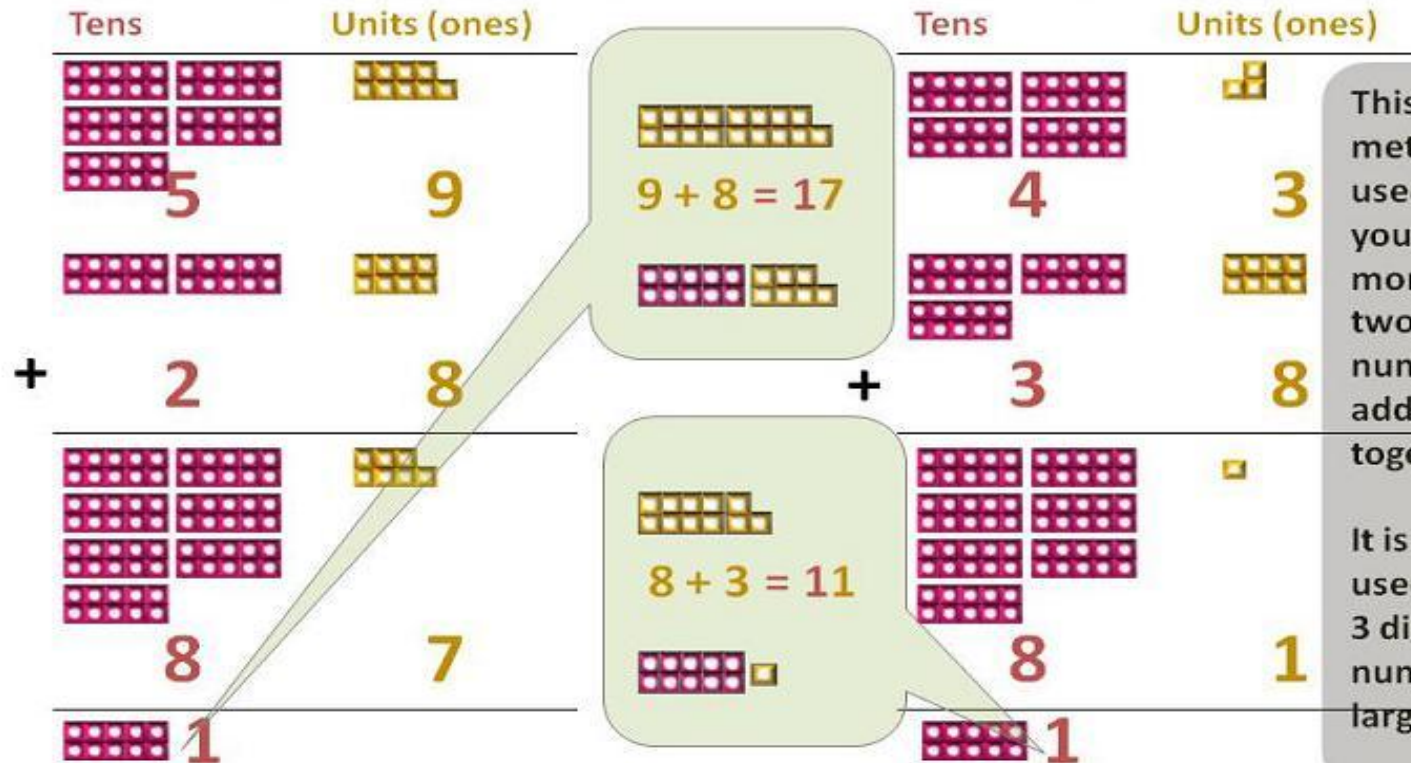
$$5 + \underline{\quad} = 20$$



Calculation

Traditional Tens and Units Addition Strategy

In the traditional method, we arrange the addition vertically. Then we always start from the right and add up the ones (units), if we get a 2 digit result, we 'carry' the extra tens into the tens column, beneath the place where we write the total. Then when we add the tens together, we also add in the 'carried' ten.



This method is used when you have more than two numbers to add together.

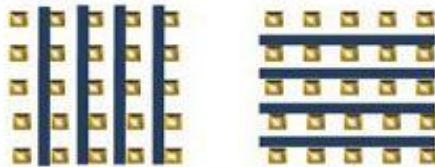
It is also used to add 3 digit numbers or larger.

Multiples of 5 - Counting in 5s

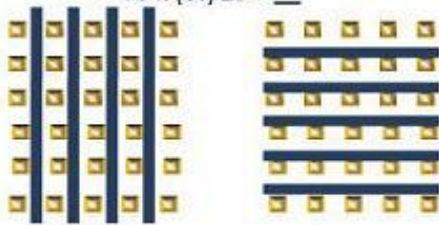


Number Facts / Number System

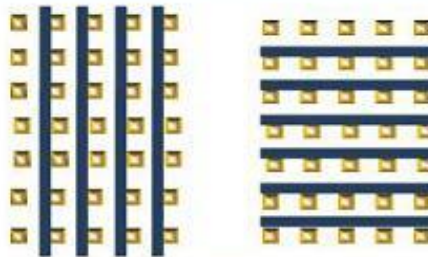
Fractions of Multiples of 5



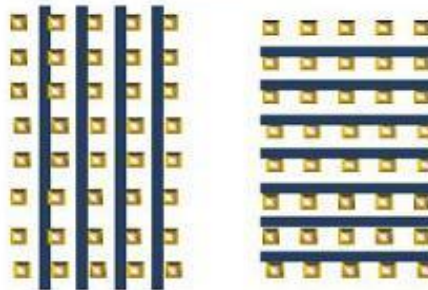
A fifth of 25 = __,
 $\frac{1}{5} \times (\text{of}) 25 = _$,
A fifth of 25 = __,
 $\frac{1}{5} \times (\text{of}) 25 = _$



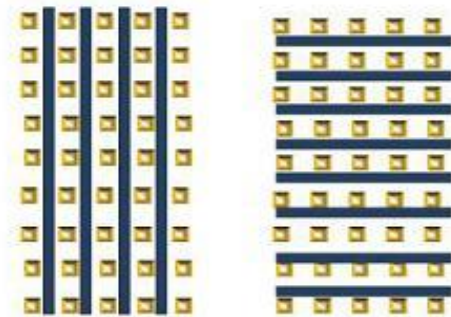
A fifth of 30 = __,
 $\frac{1}{5} \times (\text{of}) 30 = _$,
A sixth of 30 = __,
 $\frac{1}{6} \times (\text{of}) 30 = _$



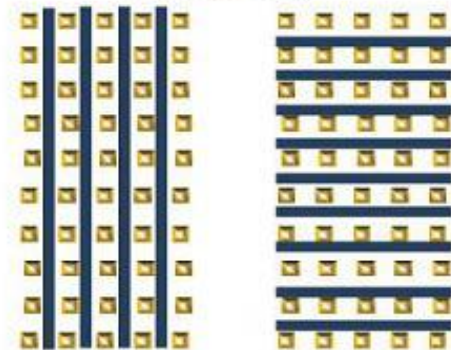
A fifth of 35 = __,
 $\frac{1}{5} \times (\text{of}) 35 = _$,
A seventh of 35 = __,
 $\frac{1}{7} \times (\text{of}) 35 = _$



A fifth of 40 = __,
 $\frac{1}{5} \times (\text{of}) 40 = _$,
An eighth of 40 = __,
 $\frac{1}{8} \times (\text{of}) 40 = _$



A fifth of 45 = __,
 $\frac{1}{5} \times (\text{of}) 45 = _$,
A ninth of 45 = __,
 $\frac{1}{9} \times (\text{of}) 45 = _$



A fifth of 50 = __,
 $\frac{1}{5} \times (\text{of}) 50 = _$,
A tenth of 40 = __,
 $\frac{1}{10} \times (\text{of}) 40 = _$

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Coming soon at www.all2you.co.uk drag and drop pages where teachers can move and combine these shapes on IWB. (WEB PAGES UNDER CONSTRUCTION)