Maths in Group 4 at International School Haarlem
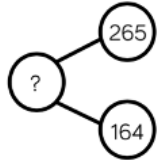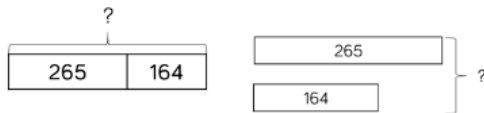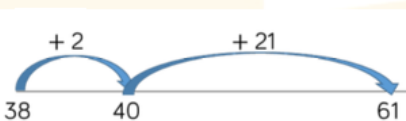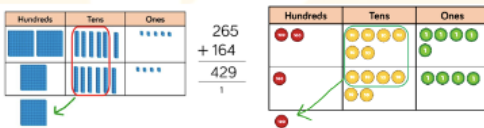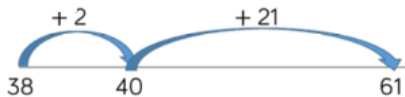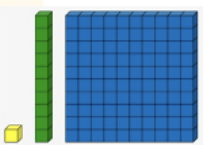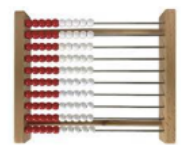
At International School Haarlem we aim to provide children with consistent and secure mathematical language, representations, and methods as they move up through the groups. These progress alongside their mathematical understanding and in combination with a range of concrete resources.

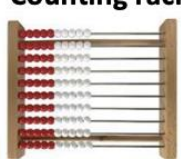This document shows the National Curriculum goals alongside the mathematical language (new vocabulary in blue), representations, and methods the children are expected to have covered by _the end_ of Group 4. In addition, it shows the concrete materials the children will use to support their learning and comprehension.
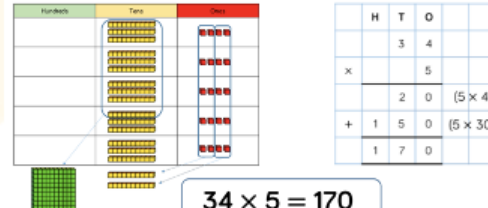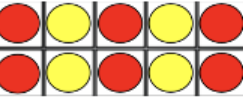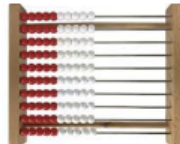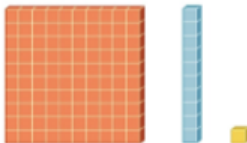
Place Value

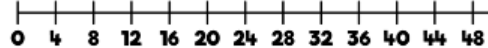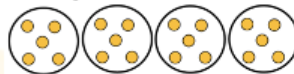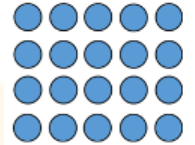| National Curriculum Goals	Key Vocabulary	Representations	Concrete Resources
Group 4 • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas	**Group 4** *Zero* *Ones* *Tens* *Hundreds* *Partition* *-teen number* *-ty number* *Place value* *Value* *Place holder* *Compare* *Equal to / the same as (=)* *Smaller / fewer / less / is less than (<)* *Smallest / fewest / least* *More / bigger / larger / greater / greater than (>)* *Most / biggest / largest /greatest* *Order* *Ascending* *Descending* *Before / 1 less / 10 less / 100 less* *After / 1 more / 10 more / 100 more* *Skip counting / counting by / counting in / times tables / multiples of* *Round to the nearest 10 / 100* *Round up* *Round down* *Number* *Number in words* *Digit* *Symbol* *How many?*	**Group 4** **Part-whole model** **Bar model** **Place value chart**	**Group 4** **Bead strings** **Number lines (unlabelled)** **Base ten** **Place value counters** **Counting rack** **Snapcubes** **Counters** **Place value cards**

Addition & Subtraction

National Curriculum Goals	Key Vocabulary	Calculation Methods / Representations	Concrete Resources

Group 4
 	
• add and subtract numbers mentally, including:
  ▪ a three-digit number and ones
  ▪ a three-digit number and tens
  ▪ a three-digit number and hundreds
• add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
• estimate the answer to a calculation and use inverse operations to check answers
• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.
	Group 4
	
	Add / Total / Plus / Together / Altogether / Addition / Sum / More
	
	Take away / Minus / Less / Subtract / Fewer / Difference / Left over
	
	Is / Equal / Is equal to
	
	# more / counting on / how many more?
	# less / counting back / how many less?
	
	Number sentence / Number problem / Equation
	
	Digit
	
	Fact family
	Number bond
	Number facts
	Next multiple of ten
	Previous multiple of ten
	
	Missing number
	Inverse
	
	Crossing 10 / exchange / crossing 100
		Group 4
		Part-whole model
		
		Bar model
		
		Number line
		
		Hundred square
		
		Column method
		
			Group 4
			
			Bead strings
			
			Number lines (unlabelled)
			
			Base ten
			
			Counting rack
			
			Cubes
			
			Counters
			
			Place value counters

Multiplication & Division

National Curriculum Goals	Key Vocabulary	Calculation Methods / Representations	Concrete Resources
Group 4 • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods • solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	**Group 4** *Doubling* *Halving* *Repeated addition* *Multiplication* *Multiply* *Multiplied by / times / groups of* *Multiple* *Array(s) – Row and Column* *Division* *Dividing / divide by / divide into* *Grouping / equal groups of* *Sharing / share equally* *Left / left over / remainder* *Number sentence / Number problem / Equation* *Fact family* *Multiplication fact* *Division fact* *Inverse* *Number pattern*	**Group 4** **Bar model** **Number line (unlabelled)** 0 4 8 12 16 20 24 28 32 36 40 44 48 **Hundred square** **Groups** **Arrays** $5 + 5 + 5 + 5 = 20$ $4 \times 5 = 20$ $5 \times 4 = 20$ **Expanded column method** $34 \times 5 = 170$	**Group 4** **Numicon** **Counters** **Place value counters** **Counting rack** **Base ten**