

#### Maths in Group 3 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 <u>the end</u> of Group 3. 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 3	Group 3	Group 3	Group 3
• count in steps of 2, 3, and 5	Zero	Part-whole model	Ten frames
from 0, and in tens from	Ones	(16)	
any number, forward and	Tens Hundred		
backward	Partition		
<ul> <li>recognise the place value of</li> </ul>	-teen number		Snapcubes Counters
each digit in a two-digit	-ty number	4 3	
number (tens, ones)	Place value Value	Bar mod <mark>el</mark>	
• identify, represent and		7 7	Numicon Straws
estimate numbers using	Compare Equal to / the same as (=)	4 3	#111111
different representations,	Smaller / fewer / less / is less than (<)	4 3	器 111111
including the number line	Smallest / fewest / least		
compare and order	More / bigger/ larger / greater / greater than (>)	Bead strings	Bead strings
numbers from 0 up to 100;	Most / biggest / largest /greatest	-99999000-00999999	-9999900-0099999-
use and = signs	Order		
• read and write numbers to	Before / 1 less / 10 less	Place value chart	Number lines (labelled)
at least 100 in numerals and	After / 1 more / 10 more		1 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
	Jump forwards	Ones	
in words	Jump backwards		Base ten Place value cards
use place value and number	Skip counting / counting by / counting in / times tables		9003
facts to solve problems	Section 19 To 19 March 20 Section		
	Number Amount		
	Number in words		
	Digit / numeral		Counting rack
	Symbol		30000- 88698-
	How many?		9000 519105 9000 519105 9000 319105
			1999 1999 1999 1999 1999 1999 1999 199

## **Addition & Subtraction**

National Curriculum Goals	Key Vocabulary	Calculation Methods / Representations	Concrete Resources
<u>up 3</u>	Group 3	Group 3	Group 3
solve problems with addition and	Add / Total / Plus / Together /	Part-whol <mark>e m</mark> odel	Ten frames
subtraction:	Altogether / Addition / Sum /	(16)	
-	More	$\mathcal{A}$	
		(2) $(3)$ $(7)$ $(3)$	
	Take away / Minus / Less /		Cubes Counters
• •		(4)(3)	Cubes Counters
	Subtract / Fewer / Dijjerence	Bar model	
	to 15 month the amount to	Bai illouei	
_	is / Equal / is equal to	7 7	Numicon Straws
		4 3	Straws -
		4 3	##
**		Number line	器 A A A A A A
·	# less / counting back / how many		
	less?	0 1 2 3 4 5 4 7 8 9 10 10 12 13 14 15 16 17 18 19 20	
			Bead strings
	Number sentence / Number	Bead strings	-99999000-00999999
•	problem / Equation	•	
•			Nove have times (lab allest)
•	Digit	Hundred <u>square</u>	Number lines (labelled)
_		1 2 3 4 5 6 7 8 9 10	
_	Fact fa <mark>m</mark> ily	11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	0 1 2 3 4 5 4 7 8 7 10 11 11 11 11 11 11 11 11 11 11 11 11
_	,	31 32 33 34 35 36 37 (38) 39 (40) 41 42 (43) 44 45 46 47 48 49 50	Day woodel
		51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70	Bar model
		71 72 73 74 75 76 77 78 79 80	7 7
•	Missing number	91 92 93 94 95 96 97 98 99 100	4 3
one number from another cannot		Column method	4 3
ecognise and use the inverse	niverse		Base ten Counting rack
relationship between addition and	Crossing 10 / eychange	38	0000
subtraction and use this to check	Crossing 10 / exchange	+23	00000000000000000000000000000000000000
calculations and solve missing		61	70000 111111 70000 111111
number problems.		1	3000
	solve problems with addition and subtraction:  using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers show that addition of two numbers can be done in any order commutative) and subtraction of one number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing	Solve problems with addition and subtraction:  using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods subtraction facts to 20 fluently, and derive and use related facts up to 100 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers show that addition of two numbers can be done in any order commutative) and subtraction of one number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing	Add / Total / Plus / Together / Altagether / Altagether / Aldition / Sum / More  using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods ecall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones a two-digit number and tens two two-digit numbers and be done in any order commutative) and subtraction of one number from another cannot recognise and use the inverse elationship between addition and subtraction and use this to check calculations and solve missing  a concrete objects, pictorial representations, and mentally, number sentence / Number problem / Equation  Digit  Fact family Number facts  Missing number Inverse  Crossing 10 / exchange  Group 3 Part-whole model  Part-whole model  Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Radd / Total / Plus / Together / Altagether / Addition / Sum / More  Rade wavy / Minus / Less / Subtract / Fewer / Difference  Is / Equal / Is equal to  # more / counting on / how many more?  # less / counting back / how many less?  Number sentence / Number problem / Equation  Digit  Hundred square    Inverse     In

# Multiplication & Division

National Curriculum Goals	Key Vocabulary	Calculation Methods / Representations	Concrete Resources
Group 3	Group 3	Group 3	Group 3
recall and use multiplication		Bar model	
and division facts for the 2,	Doubling	?	Counters
5 and 10 multiplication	Halving		
tables, including recognising	Parastad addition		
odd and even numbers	Repeated addition Multiplication	Number line	
calculate mathematical	Multiply	Number line	
statements for	Multiplied by / times / groups of	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	Numicon
multiplication and division	Multiple		
within the multiplication	Array(s) – Row and Column	Bead strings	
tables and write them using		-90000-00000-00000-	
the multiplication (×),	Division		Bead strings
division (÷) and equals (=)	Dividing / divide by / divide into Grouping / equal groups of	Arrays	
signs	Sharing / share equally	5+5+5+5=20	-00000-00000-00000-
	channy chare equally		
show that multiplication of two numbers can be done	Number sentence / Number	$4 \times 5 = 20$	Counting rack
	problem / equation	5 × 4 = 20	1000
in any order (commutative) and division of one number		Hundred square	9000 01000
	Fact family		99995 99995
by another cannot	Multiplication fact	1 2 3 4 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20	-
solve problems involving	Division fact Inverse	21 22 23 24 25 26 27 28 29 30	
multiplication and division,	IIIverse	31 32 33 34 35 36 37 38 39 40	
using materials, arrays,	Number pattern	41 42 43 44 66 47 48 49 6	
repeated addition, mental		Groups	
methods, and multiplication			
and division facts, including			
problems in contexts.			

#### **Fractions**

National Curriculum Goals	Key Vocabulary	Representations	Concrete Resources
<ul> <li>National Curriculum Goals</li> <li>Group 3</li> <li>recognise, find, name, and write fractions 1/3, 1/4, 2/4, and 3/4 of a length, shape, set of objects, or quantity</li> <li>write simple fractions, for example: 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2</li> </ul>	Group 3 Whole Fraction Half / \frac{1}{2} Quarter / \frac{1}{4} Third / \frac{1}{3}  Two quarters \frac{2}{4}  Three quarters / \frac{3}{4}  Numerator Denominator Unit fractions Non-unit fractions  Divide Parts Split Equal / Equally Non-equal Equivalent / equivalence	Representations  Group 3  Shapes  Groups  Number lines  0 1/2 2/3 3/4 5/5 6/7 8/2  1 1/2 1/2 1/3 1/4 5/5 6/7 8/2  1 1/2 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	Concrete Resources  Group 3 Paper shapes  Snapcubes Counters Hoops
	Shaded Amount Groups Share		