

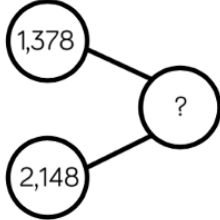
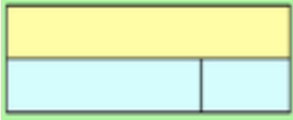


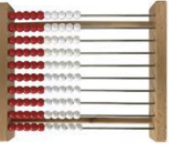

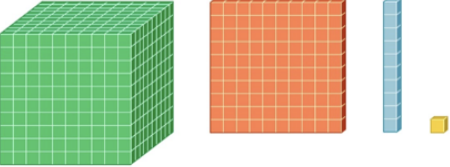




Maths in Group 5 at International School Haarlem


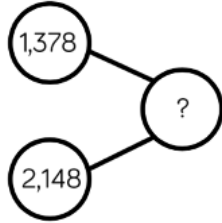
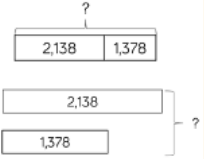
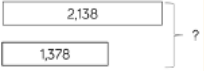
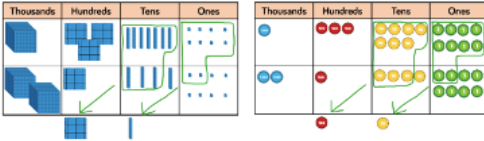

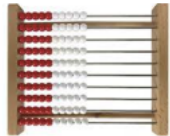

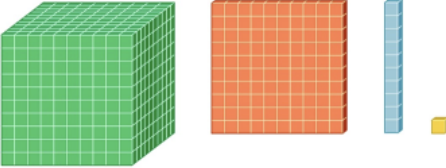
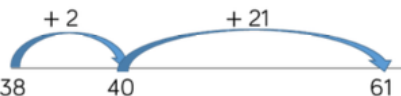
At International School Haarlem we aim to provide children with consistent and secure mathematical language, representations, and methods as they move up through the groups. These progress alongside their mathematical understanding and in combination with a range of concrete resources.

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 5. In addition, it shows the concrete materials the children will use to support their learning and comprehension.


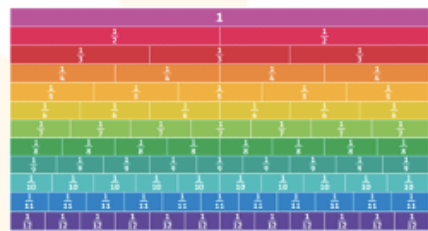
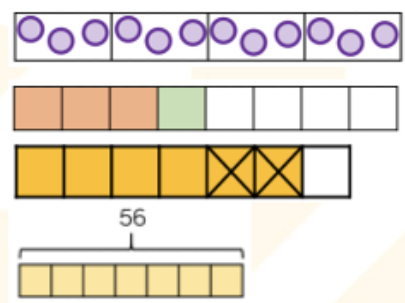
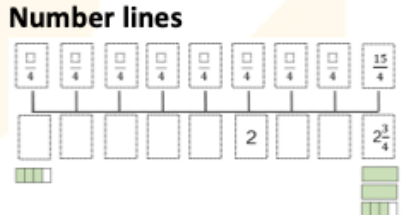

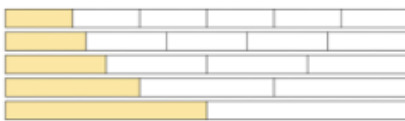
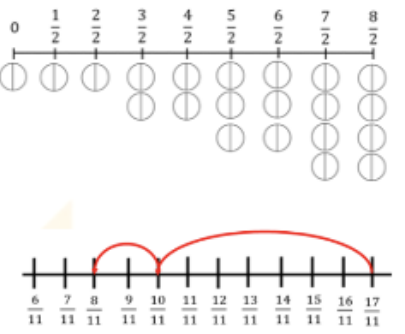
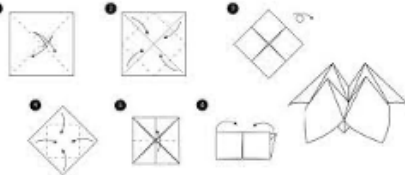
Place Value

National Curriculum Goals	Key Vocabulary	Representations	Concrete Resources																																																																				
<p>Group 5</p> <ul style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value 	<p>Group 5</p> <p>Zero Ones Tens Hundreds Thousands Partition -teen number -ty number Negative number Positive number Place value Value Place holder</p> <p>Compare Equal to / the same as (=) Smaller / fewer / less / <u>is less</u> than (<) Smallest / fewest / least More / bigger / larger / greater / greater than (>) Most / biggest / largest / greatest Order Ascending Descending</p> <p>Estimate / approximate Round to the nearest 10 / 100 / 1000</p> <p>100 less / 1000 less 100 more / 1000 more Skip counting / counting by / counting in / times tables / multiples of</p> <p>Roman numerals Digit</p>	<p>Group 5</p> <p>Part-whole model</p>  <p>Bar model</p>  <p>Place value chart</p> <table border="1" data-bbox="1093 786 1451 1042"> <thead> <tr> <th>Thousands</th> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table> <p>Roman numerals poster</p> <table border="1" data-bbox="1093 1114 1406 1321"> <tbody> <tr><td>I</td><td>1</td><td>XX</td><td>20</td><td>CC</td><td>200</td></tr> <tr><td>II</td><td>2</td><td>XXX</td><td>30</td><td>CCC</td><td>300</td></tr> <tr><td>III</td><td>3</td><td>XL</td><td>40</td><td>CD</td><td>400</td></tr> <tr><td>IV</td><td>4</td><td>L</td><td>50</td><td>D</td><td>500</td></tr> <tr><td>V</td><td>5</td><td>LX</td><td>60</td><td>DC</td><td>600</td></tr> <tr><td>VI</td><td>6</td><td>LXX</td><td>70</td><td>DCC</td><td>700</td></tr> <tr><td>VII</td><td>7</td><td>LXXX</td><td>80</td><td>DCCC</td><td>800</td></tr> <tr><td>VIII</td><td>8</td><td>XC</td><td>90</td><td>CM</td><td>900</td></tr> <tr><td>IX</td><td>9</td><td>C</td><td>100</td><td>M</td><td>1,000</td></tr> <tr><td>X</td><td>10</td><td>CL</td><td>150</td><td>V</td><td>5,000</td></tr> </tbody> </table>	Thousands	Hundreds	Tens	Ones					I	1	XX	20	CC	200	II	2	XXX	30	CCC	300	III	3	XL	40	CD	400	IV	4	L	50	D	500	V	5	LX	60	DC	600	VI	6	LXX	70	DCC	700	VII	7	LXXX	80	DCCC	800	VIII	8	XC	90	CM	900	IX	9	C	100	M	1,000	X	10	CL	150	V	5,000	<p>Group 5</p> <p>Counters</p>  <p>Place value counters</p>  <p>Counting rack</p>  <p>Dice</p>  <p>Base ten</p>  <p>Number lines (unlabelled)</p>  <p>Place value cards</p> 
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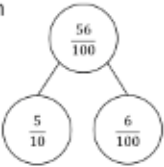
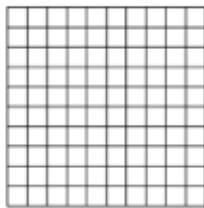
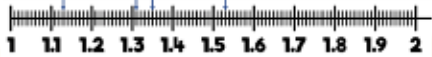


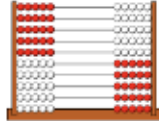
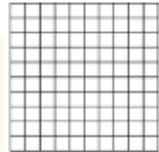
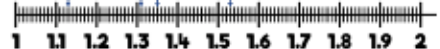
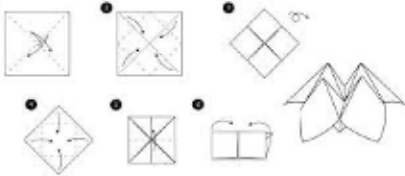
Addition & Subtraction

National Curriculum Goals	Key Vocabulary	Calculation Methods / Representations	Concrete Resources								
<p>Group 5</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 	<p>Group 5 <i>Operations</i></p> <p><i>Add / Total / Plus / Together / Altogether / Addition / Sum / More / In all / Combined</i></p> <p><i>Take away / Minus / Less / Subtract / Fewer / Difference / Left over / Remain</i></p> <p><i>Is / Equal / Is equal to</i> <i>Estimate / approximate</i></p> <p><i># more / counting on / how many more?</i> <i># less / counting back / how many less?</i></p> <p><i>Number sentence / Number problem / Equation / calculation</i></p> <p><i>Digit</i> <i>Numerical</i></p> <p><i>Fact family</i> <i>Number bond</i> <i>Number facts</i> <i>Next multiple of ten / hundred</i> <i>Previous multiple of ten / hundred</i></p> <p><i>Missing number</i> <i>Inverse</i> <i>Commutative</i> <i>Non-commutative</i></p> <p><i>Exchange</i></p>	<p>Group 5 Hundred square</p>  <p>Part-whole model</p>  <p>Bar model</p>   <p>Column method</p> 	<p>Group 5</p> <p>Counters </p> <p>Counting rack </p> <p>Place value counters </p> <p>Base ten </p> <p>Number lines (unlabelled) </p> <p>Place value chart</p> <table border="1" data-bbox="1630 1094 1973 1342"> <thead> <tr> <th>Thousands</th> <th>Hundreds</th> <th>Tens</th> <th>Ones</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Thousands	Hundreds	Tens	Ones				
Thousands	Hundreds	Tens	Ones								

Fractions

National Curriculum Goals	Key Vocabulary	Representations	Concrete Resources
<p><u>Group 5</u></p> <ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number add and subtract fractions with the same denominator solve simple measure and money problems involving fractions 	<p><u>Group 5</u></p> <p><i>Whole</i> <i>Fraction</i> <i>Half</i> / $\frac{1}{2}$ <i>Quarter</i> / $\frac{1}{4}$ <i>Third</i> / $\frac{1}{3}$ <i>Fifth</i> / $\frac{1}{5}$ <i>Sixth</i> / $\frac{1}{6}$ <i>Seventh</i> / $\frac{1}{7}$ <i>Eighth</i> / $\frac{1}{8}$ <i>Ninth</i> / $\frac{1}{9}$ <i>Tenth</i> / $\frac{1}{10}$ <i>Eleventh</i> / $\frac{1}{11}$ <i>Twelfth</i> / $\frac{1}{12}$</p> <p><i>Numerator</i> <i>Denominator</i> <i>Unit fractions</i> <i>Non-unit fractions</i> <i>Proper fraction</i> <i>Improper fraction</i></p> <p><i>Divide</i> <i>Parts</i> <i>Split</i> <i>Equal / Equally</i> <i>Equivalent / equivalence</i></p> <p><i>Shaded</i> <i>Amount</i></p>	<p><u>Group 5</u></p> <p>Part-whole model</p>  <p>Fraction wall</p>  <p>Bar model</p>  <p>Number lines</p> 	<p><u>Group 5</u></p> <p>Counters</p>  <p>Strips of paper</p>  <p>Number lines</p>  <p>Fraction fortune tellers</p> 

Decimals

National Curriculum Goals	Key Vocabulary	Representations	Concrete Resources								
<p>Group 5</p> <ul style="list-style-type: none"> recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, and $\frac{3}{4}$ find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths, and hundredths round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving decimals to two decimal places 	<p>Group 5</p> <p><i>Fraction</i> <i>Whole</i></p> <p><i>Decimal</i> <i>Decimal point</i></p> <p><i>Tenths – 0.1</i> <i>Hundredths – 0.01</i></p> <p><i>Halves</i> <i>Quarters</i></p> <p><i>Representation</i></p> <p><i>Place holder</i> <i>Exchange</i></p>	<p>Group 5</p> <p>Part-whole model</p>  <p>Place value chart</p> <table border="1" data-bbox="1075 630 1534 726"> <thead> <tr> <th>Tens</th> <th>Ones</th> <th>Tenths</th> <th>Hundredths</th> </tr> </thead> <tbody> <tr> <td></td> <td>●●</td> <td>●</td> <td></td> </tr> </tbody> </table> <p>Hundredth Square</p>  <p>Number lines (labelled and unlabelled)</p> 	Tens	Ones	Tenths	Hundredths		●●	●		<p>Group 5</p> <p>Counters</p>  <p>Place value counters</p>  <p>Counting rack</p>  <p>Hundredth Square</p>  <p>Number lines (labelled and unlabelled)</p>  <p>Fractions to decimals fortune teller</p> 
Tens	Ones	Tenths	Hundredths								
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