




<div></div> <div>MATHEMATICS NUMBER AND ALGEBRA</div> <div><div></div><div></div></div>	
Key Competencies:	
Using language, symbols, and texts <ul style="list-style-type: none">- works with and makes meaning of texts and codes that are written, oral/aural, visual, informative/imaginative, informal/formal, mathematical, scientific, technological- receives information, experiences and ideas from texts- interprets and uses words, images movement and metaphor and technologies in a range of contexts- recognise how choices of language, symbol or text affect people's understanding- confidently uses ICT to assess information	
Enthusiastic Thinkers <i>I can come up with a plan that might solve a problem that someone else has identified.</i>	Effective Communicators <i>I can contribute to a group</i>
Self Managers <i>I can follow set routines and be organised using prompts.</i>	Positive Interactors <i>I can share ideas on a topic so others can understand.</i>

Values:		
Excellence - by aiming high and by persevering in the face of difficulties	Equity - through fairness and social justice	Integrity - being honest
Innovation, inquiry, and curiosity - by thinking critically, creatively, and reflectively	Community and participation - for the common good	Respect - respect themselves, others, and human rights
Diversity - as found in our different cultures, languages, and heritages	Ecological sustainability - care for the environment	

LEARNING OBJECTIVES	
LEVEL 2 Number Strategies: <ul style="list-style-type: none">• Use simple additive strategies with whole numbers and fractions Number Knowledge: <ul style="list-style-type: none">• Know forward and backwards counting sequences with whole numbers to at least 1000.• Know the basic addition and subtraction facts.• Know how many ones, tens, and hundreds are in whole numbers to at least 1000. Equations and Expressions: <ul style="list-style-type: none">• Communicate and interpret simple additive strategies, using words, diagrams [pictures], and symbols Patterns and relationships <ul style="list-style-type: none">• Generalise that whole numbers can be partitioned in many ways• Find rules for the next member in a sequential pattern	

Moving from Advanced Counting to Early Additive - Stage 4-5							
Key Teaching Ideas	Our number system is based on ten. (Key Idea #1) Basic fact knowledge can be used to add and subtract tens. (Key Idea #2)	Numbers can be rearranged and combined to make ten. (Key Idea #3) Addition is associative, so addends can be regrouped to solve a problem more efficiently. (Key Idea #6)	Addition and subtraction problems can be solved by partitioning one of the numbers to go up or back through ten. (Key Idea #4) Subtraction problems can be solved by going back through ten, partitioning numbers rather than counting back (Key Idea #5)	Change unknown problems can be solved by using place value knowledge of tens and ones or by partitioning through tens. (Key Idea #7)	Subtraction can be used to solve different problems In which two amounts are being compared. (Key Idea #8)	Knowledge of doubles can be used to work out problems close to a double. (Key Idea #9)	The equals sign represents balance. (Key Idea #10)
Knowledge being developed	Identify all of the numbers in the range 0-1000	Say the forwards and backwards number word sequences by ones, tens, and hundreds in the range 0-1000. Say the number 1, 10, or 100 more or less than a given number in the range 0-1000.	Recall the number of tens and hundreds in centuries and thousands.	Record the results of addition calculations, using equations and diagrams.	Order numbers in the range 0-1000.	Recall groupings within 100, e.g. 49 and 51 (particularly multiples of 5 e.g. 25 & 75) Recall the number of groupings of tens that can be made from a three-digit number	Recall addition and subtraction facts to 20
Example Problems	30 + 40 = , so 34 + 42 50 + 40 = so 53 + 43 = and 45 + 55 = . 60 – 30 = , so 64 – 32 = . 80 – 50 = , so 84 – 51 = and 88 – 54 = . 30 + 20 + 40 = so 32 + 25 + 41 =	4 + 6 = , so 4 + 6 + 4 + 6 = 7 + 3 = , so 7 + 5 + 5 + 3 = 8 + 4 + 6 + 3 + 2 + 7 = , 2 + 4 + 9 + 6 = , 3 + 8 + 6 + 7 + 2 + 4 = , 50 + 40 + 60 + 50 + 30 = . 4 + 17 + 26 + 3 + 8 =	9 + 6 as 10 + 5 = 6 + 8 as 4 + 10 = 18 + 7 as 20 + 5 = 59 + 8 as 60 + 7 = . 6 + 87 as 3 + 90 = . 97 + 6 as 100 + 3 = . 38 + 298 as 36 + 300 = .	7 + □ = 13 16 + □ = 25 67- □ = 21 68 + □ = 75 31 + □ = 73 200 - □ = 156	12 – 4 42 – 4 5 + □ = 11 so 11 – 5 = □ 68 + □ = 77 so 77 – 68 = □	3 + 3 = so 4 + 3 = . 7 + 7 = so 7 + 8 = , 6 + 7 = , 14 – 7 = . 8 + 8 = so 16 – 7 = , 16 – 9 = , 15 – 8 = . 25 + 25 = so 26 + 27 = .23 + 27 = ,	6 + 1 = 5 + □ 2 + 4 = □ + 3 □ + 12 = 15 + 13 42 + 38 = □ + 32 □ + 65 = 67 + 33 585 – 35 = □ – 34

COMPLETE	WORKING ON
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Number Knowledge - Stage 5 (Early Additive Part-Whole)				
Key Teaching Ideas	Learning Intention	Numicon Lessons	Numicon Activities	NZ Maths
Number identification	To read and write any number up to 1000	Understanding place value in 4-digit numbers (Bk 4, p. 90 - 95) Learning opportunities: <ul style="list-style-type: none">- To develop understanding of the quantity and column value of numbers to 1000- To find the position of numbers to 1000 on a number line.- To know that 10-00 is equivalent to 10 groups of 100.- To be able to visualize, describe or draw 2-, 3-, and 4-digit numbers.- To understand the role of 0 as a placeholder.- To connect knowledge of numbers to measures.- To appreciate that the base-ten system is used in other cultures	Higher or Lower (Explorer More Bk 4, p. 22, Copymaster 9) Independent and paired activities 1-7 (Bk 4, p. 95)	"Th" numbers Reading Numbers to 1000 Guess My Number
Sequencing & Ordering	Count forwards & backwards by 1's, 10's, 100's	Ordering and structuring numbers to 1000 (Bk 3, 93 - 99) Learning opportunities: <ul style="list-style-type: none">- To explore numbers to 1000, understand their relative values and use this to put them in order.- To make sensible estimates of numbers of objects.- To know that when finding numbers on the 0-1002 number line looking for patterns in the number sequence can be helpful.- To learn to read and write 'shorthand' notations for a range of numbers, e.g. 1-50 or 30-80.- To know that using the < and > symbols can be useful in different contexts.- To find patterns on a 100 square, and to realize that looking for patterns can help when we are solving particular problems. Ordering and comparing numbers to 1000 and beyond (Bk 4, p. 96 - 100) Learning opportunities: <ul style="list-style-type: none">- To order and compare numbers greater than 1000.	Jigsaw 100 (Explorer More bk 3, p. 26, Copymaster 11) Explorer Progress Book 3b, p. 10-11 Independent and paired activities 1-10 (Bk 3, p. 98-99)	More empty number lines Secret numbers Hundreds, Tens and Ones BAT Plates Plus Ten Before and After -Hundred Ordering License Plates 1, 10 and 100 before and after Fill in the Gaps
	Say the number 1, 10, 100 more with numbers to 1000			
	Say the number 1, 10, 100 less with numbers to 1000			
	Order numbers to 1000			
	Skip count forwards and backwards in 3's			
Fractions	Know unit fraction symbols, ½, ¼, ⅓, ⅕, 1/10	Using fraction notation to describe parts of a discrete set (Bk 3, 111-117) Learning opportunities: <ul style="list-style-type: none">- To understand that a set is often a collection of objects or ideas that has at least one common attribute.- To identify fractions as equal parts of a whole.- To use Numicon Shapes and number rods to represent proper fractions.- To add and subtract fractions with the same denominator.- To recognise that half can be represented by different equivalent fractions.- To recognise and name fractions where sets have been shared into twelfths, sixths and thirds.- To use the terms numerator and denominator when describing both unit and non-unit or proper fractions.- To make a connection between fractions as operators and dividing by integers.	Big Wheel (Explore More Bk 3, Copymaster 14) Explorer Progress Book 3c, p. 18-19 Independent and paired activities 1-7 (Bk 3, p. 110)	Fair Shares
	Order fractions with the same denominators	Fractions and recognizing part-whole relationships (Bk 4, p. 113 - 119) Learning opportunities: <ul style="list-style-type: none">- To explore fractions in different contexts.- To generalize about a half a quarter and three quarters.- To develop understanding of fractions equivalent to a half.- To know that, when comparing fractions with a common denominator, the larger numerator represents the larger fraction.- To understand, when comparing unit fractions, that the larger denominator, the smaller the parts.	Fraction Finder (Explore More Bk 4, Copymaster 13) Independent and paired activities 1-6 (Bk 4, p. 119)	Fraction Circles Cake Fractions Pizza Pieces Place it
Groupings/ Place Value	Know groupings of 10's in a 3 digit number	Exploring hundreds, tens and units with base-ten apparatus (Bk 3, p. 80 - 83) Learning opportunities: <ul style="list-style-type: none">- To reinforce the understanding that arranging objects into groups of 10 is an efficient way to find how many?' without counting.- To explore the use of base-ten apparatus.- To relate grouping to writing numbers in numerals and words.- To give a sensible estimate of a number of objects over 100.- To explore how many tens in 2- and 3-digit numbers	Robot Tens (Explore More, Bk 3, Copymaster 8) Explorer Progress Book 3a, p. 10-11 Independent and paired activities 1-5 (Bk 3, p. 83)	Big steps Something's hiding Show me the number
	Know groupings to 100			
	Round 3 digit numbers to the nearest 10 or 100	Estimating and rounding (Bk 4, p. 101 - 106) Learning opportunities: <ul style="list-style-type: none">- To realize that estimates are not exact amounts, and are often given as 'round' multiples of 10, 100 or 1000.	Fruit Juice (Explore More Bk 4, Copymaster 11) Independent and paired activities 1-7 (bk 4, p. 106)	
Basic Facts	Know addition facts to 20	Developing fluency with adding subtracting facts to 20 (Bk 3, p. 126 - 132) Learning opportunities: <ul style="list-style-type: none">- To see the patterns are easier to spot when working systematically.- To use adding subtracting facts to 10 to add and subtract within 20.- To build fluent recall of adding and related subtracting facts including doubles.- To realize that numbers can be added in any order, i.e. adding has a commutative property.- To appreciate the importance of knowing adding and subtracting facts by heart.- To understand that commutative property facts are equivalent, e.g. 2+4=4+2 Adding and subtracting to 20 (Bk 2, p. 201 -207)	Total 20 (Explore More, Bk 3, Copymaster 16) Explorer Progress Book, 3a p. 8-9 Independent and paired activities 1-10 (Bk 3, p. 132)	Bridging to ten Pocket facts Number cards Subtraction game Greedy pig Tennis ball addition

		Learning opportunities: <ul style="list-style-type: none"> - To develop fluent recall of adding and subtracting facts to 20 and to use efficient strategies to calculate those not known. - To use adding and subtracting facts to 10 to find efficient solutions when adding and subtracting to 20. - To become more confident about using different strategies to solve adding and subtracting problems. - To use an empty number line to illustrate calculating with shapes and/or to show mental calculating. Adding and subtracting 2-digit numbers to 100 (Bk 2, p. 193 - 200) Learning opportunities: <ul style="list-style-type: none"> - To learn that looking at relationships between numbers being added or subtracted helps us to decide the most efficient method for calculating. - To use understanding of place value and partitioning to add or subtract higher numbers up to 100. - To use knowledge of number facts to 10 to add or subtract multiples of 10 to or from a 2-digit number. - To use knowledge of number facts to 10 to add or subtract 2-digit numbers to or from 2-digit numbers without crossing a multiple of 10. - To know when it is helpful to write adding and subtracting sentences in columns 	Falling Leaves (Explore More Bk 2, Copymaster 28) Independent and pair activities 1-9 (Bk 2, p. 206-207) Snack Time (Explore More Bk, 2, Copymaster 27) Independent and pair activities 1 - 10 (Bk 2, p. 199-200)	
	Know multiples of 100 that add to 1000	Exploring hundreds, tens and units with base-ten apparatus (Bk 3, p. 80 - 83) Learning opportunities: <ul style="list-style-type: none"> - To reinforce understanding that arranging objects into groups of 10 is an efficient way to find how many?' without counting. - To explore the use of base-ten apparatus. - To relate grouping to writing numbers in numerals and words. - To give a sensible estimate of a number of objects over 100. - To explore how many tens in 2- and 3-digit numbers 	Robot Tens (Explore More Bk 3, Copymaster 8) Explorer Progress Book 3a, p. 10-11 Independent and paired activities 1-5 (Bk 3, p. 83)	Adding Multiples of 100 Make 1000 Challenge Jungle land
	Know multiplication & division facts for x2, x5, x10	Exploring steps of constant size through sequences of multiples (Bk 3, p. 49 - 54) Learning opportunities: <ul style="list-style-type: none"> - To know that spotting patterns help us when we are trying to understand sequences and that spotting where a patter 	Three in a Row (Explorer More Bk 3, Copymaster 3) Explorer Progress Book 3a, p. 20-23) Independent and paired activities 1-6 (Bk 3, p. 54)	Twos, Fives and Tens

Number Strategies - Stage 5 (Early Additive Part-Whole)				
Key Teaching Ideas	Learning Intention	Numicon Lessons	Numicon Activities	NZ Maths
Key Idea #2 Key idea #3	To solve simple addition and subtraction problems using basic facts. <ul style="list-style-type: none"> - Doubles - Fives - Making tens 	Mental strategies for near doubles and adding subtracting (Bk 2, p. 177 - 182) Learning opportunities: <ul style="list-style-type: none"> - To know doubles of each number to 10 and to derive related subtraction facts. - To understand the inverse relationship between doubling and halving. - To know how to adjust calculations and compensate when adding and subtracting.. - To use inverse relationships to work efficiently. Adding three or more 1-digit numbers (Bk 2, p. 188 - 192) Learning opportunities: <ul style="list-style-type: none"> - To add more than two numbers together without counting in ones. - To experience situations when it is useful to use adding facts for numbers to 10 and double facts. - To use a wide range of strategies when adding at least three numbers that total 20 or less. - To know that numbers can be added in any order and the total remains the same. - To write a list of number in column and show understanding of the importance of keeping the tens and units in the correct columns. - Developing fluency with mental adding strategies (Bk 4, p. 155 - 161) Learning opportunities: <ul style="list-style-type: none"> - To know that quickly adding multiples of 10 is a useful strategy in mental calculating. - To use the strategy of partitioning numbers in different ways to make adding calculations easier. - To realize that adding strategies apply to problems where two or more vales are combined or one value increases. - To use the strategy of rounding numbers and adjusting to make adding calculations easier. - To use compensating as a non-computational adding strategy. - To know it is important to look carefully at the numbers involved in a calculation before deciding which strategy to use. 	Number Jungle (Explore More Bk 2, p. 52, Copymaster 24) Explorer Progress Book, 3a, p. 20-23 Independent and paired activities 1-10 (Bk 2, p. 182) Adding 'T' (Explore Bk 2, p. 56, Copymaster 26) Independent and Paired activities 1-8 (Bk 2, p. 192) Cycle Tour (Explorer More Bk 4, Copymaster 19) Independent and paired activities 1-7 (Bk 4, p. 160-161)	Make ten (working with ten) Near doubles
Key Idea #1 Key Idea #2 Key idea #4 Key idea #5	To solve 2 & 3 digit addition & subtraction problems by: <ul style="list-style-type: none"> - Making tidy numbers - Using place value 	Adding and subtracting 2-digit numbers to 100 (Bk 2, p. 193 - 200) Learning opportunities: <ul style="list-style-type: none"> - To learn that looking at relationships between numbers being added or subtract helps us to decide the most efficient method for calculating. - To use understanding of place value and partitioning to add or subtract higher numbers up to 100. - To use knowledge of number facts to 10 to add or subtract multiples of 10 to or from a 2-digit number. - To use knowledge of number facts to 10 to add or subtract 2-digit numbers to or from 2-digit numbers without crossing a multiple of 10. - To know when it is helpful to write adding and subtracting sentences in columns. 	Snack Time (Explore Bk 2, p. 58, Copymaster 27) Independent and paired activities 1-10 (Bk 2, p. 199-200)	More ones and tens Adding ones and tens Subtracting Ones and Tens Adding in parts Subtraction in parts Compatible numbers Up over the tens Comparisons: Finding difference in data

		<p>Mental methods for adding single-digit numbers (Bk 3, p. 133 - 137)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To recognize that multiples of 10 are important landmarks on the number line when calculating.- To realize that know adding facts of numbers to 10 helps when adding involves bridging a multiple of 10.- To use an understanding of the close relationship between 9 and 10 when adding 9 to other numbers.- To begin to understand that when we are adding, the amount to be added can be partitioned and the overall total will remain the same.- To understand that sometimes it is easier to add numbers in a different order, and we can do this because adding has a commutative property.- To find out that it can be easier to add two numbers by adjusting both of them by an equivalent amount, e.g. 8+9 = 7+10 <p>Mental methods for subtracting single-digit numbers (Bk 3, p. 138 - 143)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To recognize that multiples of 10 are important landmarks on the number line when we are calculating.- To realize that knowing subtracting facts from numbers to 10 helps when subtracting involves bridging a multiple of 10.- To use understanding of the relationship between 9 and 10 when subtracting 9 from other numbers.- To realize that it is sometimes easier to subtract one number from another by adjusting both of them by an equivalent amount.	<p>Climb the Stairs (Explorer More Bk 3, Copymaster 17)</p> <p>Explorer Progress Book 3a, p. 16-17</p> <p>Independent and paired activities 1-3 (Bk 3, p. 136-137)</p> <p>Rocket Launch (Explorer More Bk 3, Copymaster 18)</p> <p>Explorer Progress Book 3a, p. 18-19</p> <p>Independent and paired activitries 1-5 (Bk 3, p. 143)</p>	
	To interpret relationships shown in equations using the properties of operations and understanding of the equal sign.	<p>Exploring 'equals' in balancing number sentences (Bk 4, p. 57 - 62)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To consider number relationships and the calculations involved when comparing expressions in balancing number sentences.- To develop strategies for making calculations easier by adjusting and compensating numbers.- To know they can use number relationships to work out missing numbers.- To develop strategies for solving problems where more than one number	<p>Weightlifter (Explore Bk 4, P. 12, Copymaster 4)</p> <p>Independent and paired activities 1-8 (Bk 4, p. 62)</p>	A balancing act
Multiplication and Division	Solve multiplication and division problems using repeated addition with problems involving 2s, 3s, 4s, 5s and 10s at least.	<p>Introducing multiplying as repeated adding (Bk 2, p. 165 - 170)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To understand that 'times' means how often an object or action is repeated.- To understand that multiplying is calculating we do instead of repeated adding.- To learn that the 'x' symbol is called the 'multiplying sign' (or 'multiplying symbol).- To learn that, when we multiply, the outcome is called the 'product'.- To make connections between counting in steps of 2,3,5 and 10 and multiplying. <p>Introducing dividing as 'How many ...in...?' (Bk 2, p. 208 - 213)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To begin to understand dividing as finding 'how many groups are there in ...?'- To realize that there is an inverse relation between multiplying and dividing.- To realize that knowing multiplying tables can help with finding solutions to dividing problems.- To learn an action sign for dividing and to read and write the '÷' symbol.- To begin to realize that dividing can be useful for finding out how many of something we can afford to buy. <p>Exploring ratio and scaling problems and introducing the short written methods of multiplying and dividing. (Bk 3, p. 205 - 211)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To relate the language 'times' and multiplied by' to problems that involve the scaling structure of multiplication, and the language 'divided by' to the ratio structure of division, where models are reduced to half and size and three times smaller.- To discover the rule that multiplying by 10 has the effect of shifting all digits one place to the left, and that zero is then needed as a place holder in the units place.- To discover the rule that dividing by 10 has the effect of shifting all digits one place to the right.- To use the short written methods of multiplying and dividing.	<p>How many times? (Explore More Bk 2, p.48 Copymaster 22)</p> <p>Independent and paired activities 1-8 (Bk 2, p. 169-170)</p> <p>Dividing Problems (Explore Bk 2, p. 62, Copymaster 29)</p> <p>Independent and paired activities 1-7 (Bk 2, p. 213)</p> <p>Seal Balance (Explore More Bk 3, p. 62, Copymaster 29)</p> <p>Independent and paired activities 1-7 (Bk 3, p. 211)</p> <p>Explorer Progress Bk 3, p. 12-13</p>	<p>Three's company Animal Arrays</p> <p>Two, Fives, and Tens</p> <p>Figure it Out Factor Puzzle Stars and students Digital Delights Multiple Mirrors Table Tricks Fun Factor Multiplying Madd</p> <p>Fun with Fives A Little Bit More/A Little Bit Less</p> <p>Figure it Out Fives and Tens</p>
	Solve multiplication and division problems by forming the factors when the basic fact is known.	<p>Revising multiplying as repeated adding (Bk 3, p. 144-147)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To understand that 'times' means how often an object or action is repeated- To realize that multiplying is what we do instead of adding repeated groups.- To understand that the x symbol is called the multiplying sign (or symbol).- To learn an action for multiplying and to read and write the 'x' symbol. <p>Learning multiplying facts and looking for patterns (Bk 3, p. 176 - 180)</p> <p>Learning opportunities:</p> <ul style="list-style-type: none">- To connect sequences of multiplies with products in multiplication tables.- To realize that multiplying or dividing by 1 leaves the number being multiplied or divided unchanged.- To realize that 'times' o always produces o.- To connect ordinal and cardinal numbers.	<p>Pizza Maker (Explorer More Bk 3, p.42, Copymaster 19)</p> <p>Explorer Progress Book 3b, p. 2-3</p> <p>Independent and paired activities 1-4 (Bk 3, p. 147)</p> <p>Frog Hop (Explorer Bk 3, p. 52, Copymaster 24)</p> <p>Explorer Progress Book 3b, p. 20-23</p> <p>Independent and paired</p>	Double Trouble

		<ul style="list-style-type: none"> - To realize that sometimes tables have common multiples. - 'To become familiar with multiples represented with structured apparatus, the Numicon 1-100 cm Number line, the 100 square and an empty number line. - To develop fluent recall of the 2, 3, 5, 8 and 10 times table. <p>Introducing the sharing structure of dividing (Bk 3, p. 181 - 185) Learning opportunities:</p> <ul style="list-style-type: none"> - To understand and use the language associated with the sharing structure of dividing. - To find out how to model sharing dividing problems with structured apparatus and on empty number lines. - To realize that the inverse relation between multiplying and dividing can help us to solve sharing problems. - To see that arrays can show connections between grouping and sharing, as well as multiplying and dividing. - To begin to realize that some sharing situations result in remainders. 	activities 1-5 (Bk 3, p. 180)	
	Solve multiplication and division problems using the commutative property.	<p>Exploring multiplying through arrays (Bk 3, p. 148 - 152) Learning opportunities:</p> <ul style="list-style-type: none"> - To realize that multiplying can be represented by building arrays. - To understand the commutative and associative properties of multiplying and to make the connection that adding also has these properties. - To realize that some number of arrays can only have one row (prime numbers). - To notice that in real-life situations the order of numbers in multiplying sentences sometimes makes a difference. - To realize that knowing multiplication tables can help us to work out other multiplying facts. 	<p>Sowing Seeds (Explorer Bk 3, p. 44, Copymaster 20)</p> <p>Explorer Progress Book 3b p. 4-5</p> <p>Independent and paired activities 1-5 (Bk 3, p. 152)</p>	<p>Animal Arrays Turn Abouts</p> <p>Figure it Out Choco-blocks</p>
Fractions	Find fractions of a set using repeated addition.	<p>Making connections between dividing into equal parts and calculating with fractions (Bk 3, p. 212 - 217) Learning opportunities:</p> <ul style="list-style-type: none"> - To know that two equal parts of a whole are called halves and that this can be written as $\frac{1}{2}$ and read as 'one half' or just 'half'. - To know that even numbers can be shared equally into two whole number parts and that an efficient way to halve larger numbers is to partition them into tens and units and find half of each part. - To realize that halving odd numbers will always result in one whole leftover which can be split into two halves and that when dividing an odd number of objects into two or more parts, what happens to the remainder will depend on the kinds of objects involved. - To know that four equal parts of a whole are called quarters and that each can be written as $\frac{1}{4}$ and read as 'one quarter'. - To know that we can divide something into four parts by finding half and half again. - To know that dividing by 2 is the same as finding $\frac{1}{2}$. - To know that dividing by 4 is the same as finding $\frac{1}{4}$. 	<p>Hexagon Halving (Explore Bk 3, p.64, Copymaster 30)</p> <p>Explorer Progress Bk, 3c, p. 14-15</p> <p>Independent and paired activities 1-6 (Bk 3, p. 216 - 217)</p>	<p>Wafers</p> <p>Figure it Out Puzzling Shapes Circle Segment Fabulous folding Getting in Shape</p> <p>Fraction Circles</p>
	Find fractions of shapes and lengths including fractions greater 1.			
	Order fractions	<p>Fractions and recognizing part-whole relationships (Bk 4, p. 113 - 119) Learning opportunities:</p> <ul style="list-style-type: none"> - To explore fractions in different contexts. - To generalize about a half, a quarter and three quarters. - To develop understanding of fractions equivalent to a half. - To know that, when comparing fractions with a common denominator, the larger numerator represents the larger fractions. - To understand, when comparing unit fractions, that the larger denominator, the smaller the parts - To add and subtract fractions with the same denominators. 	<p>Fraction Finder (Explore Book 4, p. 30, Copymaster 13)</p> <p>Independent and paired activities 1-6 (Bk 4, p. 119)</p>	

Term 3 evaluation

Successes and findings	Next Steps
<p>Students have done really well at their multiplication 2,5,10s. Most have grasped the skip counting element and are trying to learn them off by heart.</p> <p>I found that my bottom two groups needed more scaffolding and a lot more materials. However the routine we have set is now working.</p>	<p>Hot spot is planned to target ALL maths areas so that students don't forget what they had learnt in the past e.g. fractions.</p> <p>Mathletics monitored better and used more often in class.</p>

Term 2 Evaluation:

Students have progressed nicely in their maths. Most students are working at stage 5. It has been great having the support from Mrs Park to help our students.

Group time is working well and students are understanding the requirements of independent work.

Next term we are going to incorporate more open ended questions for our hotspot and continue using the knowledge activities to keep students up to date with their knowledge. There will also be a big focus on multiplication and division.

It's going well Joanne. Thank you.

Groups



Adoration
Kylah
Sophira
Harsirat
Blessy
Kaiden
Caitlin
Payton
<i>Stage 5</i>

Lessons , sequence and assessment

[Link to site](#)