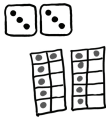
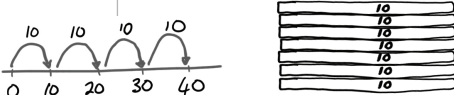
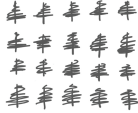
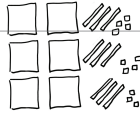
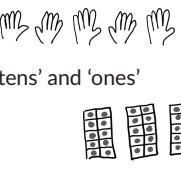
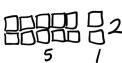
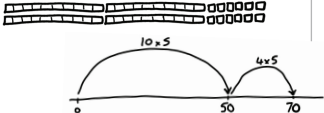
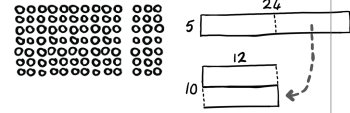
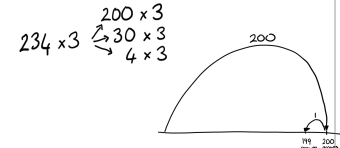
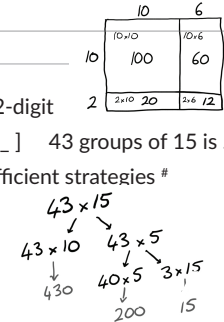
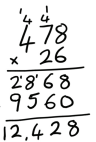
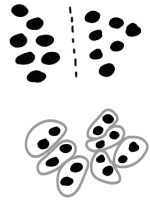
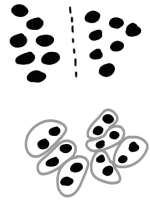
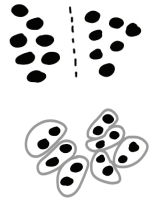
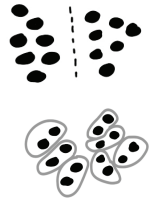
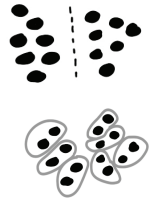
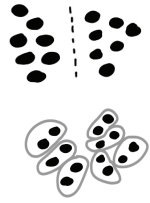
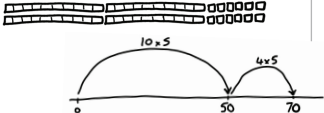
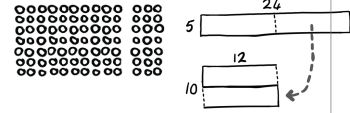
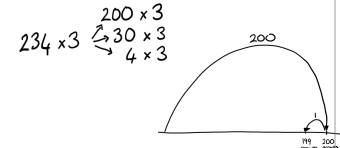
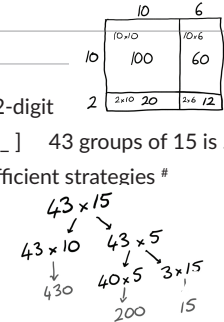
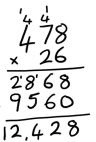
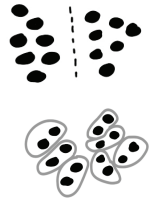
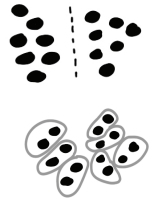
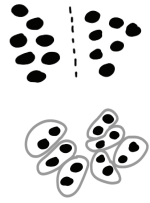
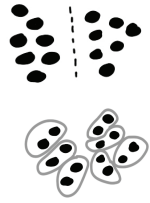
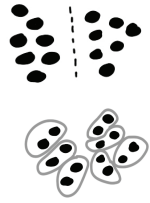
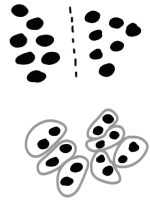
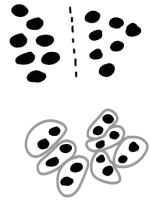


Number Milestones: Solving problems involving multiplication and division

NZC Early Level 1 Year 1: 5 -6 year olds Numeracy Stage 1/2/3	NZC Level 1 Year 2: 6 -7 year olds Numeracy Stage 4	NZC Early Level 2 Year 3: 7 -8 year olds Numeracy Early Stage 5	NZC Level 2 Year 4: 8 -9 year olds Numeracy Stage 5	NZC Early Level 3 Year 5: 9 -10 year olds Numeracy Early Stage 6	NZC Level 3 Year 6: 10 -11 year olds Numeracy Stage 6	NZC Early Level 4 Year 7: 11 -12 year olds Numeracy Early Stage 7	NZC Level 4 Year 8: 12 -13 year olds Numeracy Stage 7	NZC Level 5 Year 9/10: 14+ year olds Numeracy Stage 8
Counting Solve problems involving groups the same size, equal sharing and counting Counting from one numbers up to 10, then up to 20 	Counting on and counting back numbers up to and from 100 Skip counting in tens up to 100 in fives up to 50 in twos up to 20 					Each level is a one-year wide band of learning aligned to The New Zealand Curriculum. They describe what students are able to do correctly, and independently, to be 'working at' that level, even if it is at the beginning of the level and not all aspects have been mastered. Within each level the understanding, knowledge and skills also progress. The size of numbers and the complexity of problems increase, while the amount of support provided and use of equipment decreases. 		
Sorting objects into groups Describing same and different Equal sharing one at a time → more than one at a time → sharing 'tens' and 'ones' 	Multiplying whole numbers Solve problems using part-whole thinking, place value understanding, multiplicative thinking, number facts ... 1-digit x2, x5, x10 Use a non counting method e.g. x10, x5, x2 facts, repeated addition Fingers on 5 hands? 8 \$10 notes 6 groups of 2 is ... 7 x 5 = [_] 	1-digit x2, x5, x10 Use a non counting method e.g. x10, x5, x2 facts, repeated addition Fingers on 5 hands? 8 \$10 notes 6 groups of 2 is ... 7 x 5 = [_] 	2-digit x2, x5, x10 2 groups of 26 is ... 14 x 5 = [_] 	2-digit x 1-digit 3 groups of 234 is ... 199 x 4 = [_] 	3-digit x 1-digit 3 groups of 234 is ... 199 x 4 = [_] 	2-digit x 2-digit 16 x 12 = [_] 43 groups of 15 is ... use efficient strategies # 	3-digit x 2-digit 478 groups of 26 is ... + 9560 375 x 99 = [_] use efficient strategies # 	Any whole number
	Dividing whole numbers   	  	2-digit ÷10, ÷5, ÷2 Share \$64 evenly between 2 people 65 ÷ 5 = [_] How many groups of 5 in 65? 	2-digit ÷ 1-digit 48 into groups of 8 68 ÷ 3 = [_] 8 x [_] = 48 3 x [_] = 68 with no remainder and with remainder as a number 	3-digit ÷ 1-digit 138 ÷ 6 = [_] 100 ÷ 3 = [_] 6 x [_] = 138 3 x [_] = 100 with remainder as a fraction 	3-digit ÷ 2-digit 135 ÷ 15 = [_] 440 ÷ 23 = [_] with remainder as a fraction 	4-digit ÷ 3-digit 8,190 ÷ 252 = [_] with remainder as a decimal 	Any whole number
	Multiplying and dividing fractions Solve problems by finding fractions of numbers using part-whole thinking, fractional, additive, multiplicative and proportional thinking, number facts ... Halves of groups of objects and lengths 	Halves and quarters of objects, lengths, area and numbers up to 20 Find half of 14 coins. How long is half of this rope? Share these 3 rods between you and a friend evenly. 	Halves and quarters of objects, areas, lengths and numbers (multiples of 2, 5, 10) One quarter of 60 is ... $\frac{1}{4} \times 60 = [_]$ 	Find $\frac{1}{2}$ of 2, 4, 6, 8, 10 $\frac{1}{3}$ of 3, 6, 9, 12, 15 $\frac{1}{4}$ of 4, 8, 12, 16, 20 $\frac{1}{5}$ of 5, 10, 15, 20, 25 One fifth of 15 is ... $\frac{1}{5} \times 15 = [_]$ Where is $\frac{1}{4}$ of the way to the finish from the start? 	One half, one third, one quarters of numbers up to 100 $\frac{1}{3} \times 27 = [_]$ Solve problems by multiplying a fraction by a fraction using multiplicative and proportional thinking ... Multiply any fraction by one half $\frac{1}{2} \times \frac{2}{3} = [_]$ Half of 2 thirds 	Halves, thirds, quarters, fifths, tenths of numbers up to 100 $1\frac{3}{10}$ of 50 is ... $\frac{4}{5} \times [_] = 20$ Multiply any fraction by a unit fraction with denominators to 10 $\frac{1}{4} \times \frac{2}{3} = [_]$ Solve problems by dividing a fraction by a fraction Divide numbers and halves by half How many halves in $3\frac{1}{2}$? 	Fractions with denominators to 10 of any whole number $\frac{3}{7} \times 63 = [_]$ $1\frac{2}{9}$ of 36 Multiply any fraction by fractions with denominators to 10 $\frac{4}{7} \times \frac{2}{3} = [_]$ Divide any fraction by one half How many halves in $\frac{3}{4}$? $\frac{3}{4} \div \frac{1}{2} = [_]$ 	Any decimal
Understandings, knowledge and skills underpinning mathematical thinking and problem solving Read, write, count, model, order, estimate, rounding Numbers up to 10, then up to 20 Representing multiplication and division using arrays, grids, objects and length models Place value 'ten and ...' Basic Facts Skip count in tens, fives and twos Sorting, equal sharing, describing same and different Sort and share one at a time, then more than one Sort and share 'tens' and 'ones' Sort and share 'hundreds', 'tens' and 'ones' ...	Numbers up to 100 Skip count in tens, fives and twos Sort and share 'tens' and 'ones'	Numbers up to 1,000 x10 x5 x2 multiplication and division facts, result unknown Sort and share 'hundreds', 'tens' and 'ones'	Numbers up to 10,000 x10 x5 x2 multiplication and division facts, change/start unknown Sort and share 'hundreds', 'tens' and 'ones'	Numbers up to 1,000,000 Up to 10 x 10 multiplication and division facts, result unknown	'thousands', 'millions', 'billions' ... Numbers with 'tenths' Up to 10 x 10 multiplication and division facts, change/start unknown	Any whole numbers Numbers with 'tenths', 'hundredths' Up to 12 x 12 multiplication and division facts	Any decimal number Add, subtract, multiply, divide numbers up to 10	Add, subtract, multiply, divide
NZC Early Level 1	NZC Level 1	NZC Early Level 2	NZC Level 2	NZC Early Level 3	NZC Level 3	NZC Early Level 4	NZC Level 4	NZC Level 5