

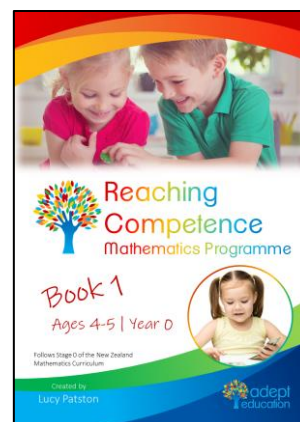


Overview of Books 1 to 4

Year 0/1

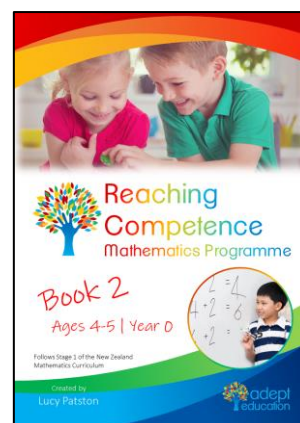
Book 1

Knows the names of the main colours
 Able to sort by up to two attributes
 Able to match one to one
 Able to copy and create a simple repeating pattern
 Able to count to 10
 Able to recognise numerals to 6
 Able to count a set of objects to 6
 Able to order numerals to 6
 Able to give the number before and after in the range 0-6



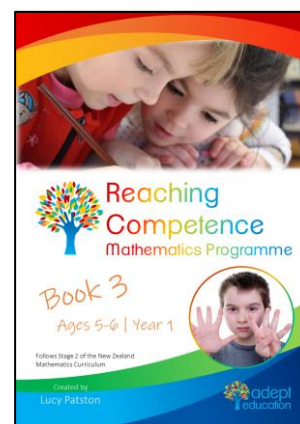
Book 2

Able to recognise numerals to 10
 Able to count a set of objects to 10
 Able to count backwards from 10
 Able to recognise patterns to 5
 Knows groupings within 5
 Able to partition a set into two subsets
 Able to order numbers to 10
 Able to give the number before and after up to 10
 Able to recognise and copy number patterns



Book 3

Able to solve addition and subtraction by counting all
 Able to record using pictures, diagrams and words
 Able to use + and - to record number facts
 Able to recognise numerals to 20
 Able to count forwards and backwards in range 0-20
 Able to count a set of objects up to 20
 Able to order numbers to 20
 Able to give number before and after up to 20
 Able to predict number patterns



Book 4

Able to use a number line to solve addition and subtraction
 Able to solve addition and subtraction by counting on from the largest number
 Able to use = in number sentences
 Knows groupings within 10
 Able to skip count in twos, fives and tens
 Able to recall doubles facts to 10
 Able to recall facts with 5





Overview of Books 5 to 7

Year 2

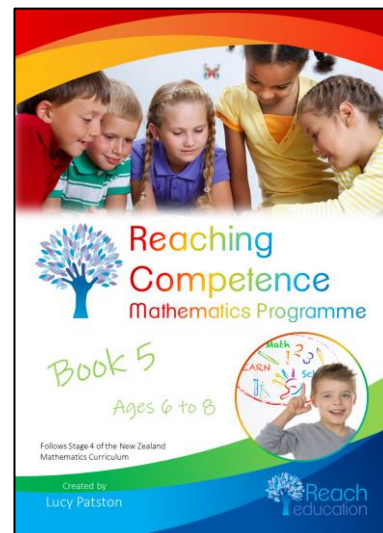
Book 5

Halves and quarters

- Able to recognise symbols for half and quarter
- Able to find half and quarter of a shape
- Able to find half and quarter of a set

Basic numbers

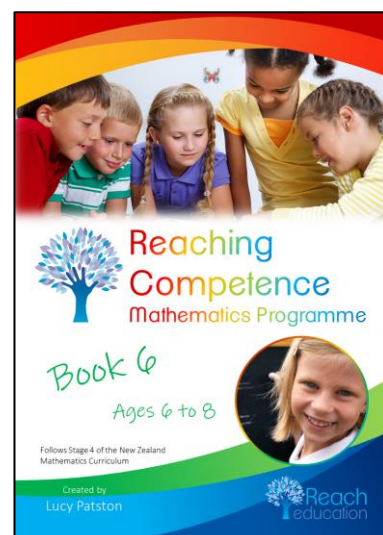
- Able to count forwards and backwards in the range 0-100
- Able to recognise 2-digit numbers
- Able to order numbers in the range 0-100
- Able to give the number before and the number after in the range 0-100
- Understands the pattern of teen numbers



Book 6

Solving problems: addition and subtraction

- Able to solve addition and subtraction problems by counting on and back
- Able to record addition and subtraction using equations
- Able to use "=" to solve equations
- Knows groupings within 5 and 10
- Able to recall addition and subtraction facts to 10
- Able to recall doubles and halves to 20
- Able to recall addition and subtraction of teen numbers as 10+



Book 7

Multiplication

- Able to solve multiplication problems by skip counting
- Understands the "x" symbol

Working with tens

- Able to count on and back in tens from any number
- Knows the number of tens in a decade
- Knows the multiples of ten that add to 100
- Knows the number of tens and ones in any 2-digit number
- Able to use doubles to solve addition and subtraction to 20
- Knows groupings within 20
- Able to use tens to solve addition and subtraction to 20





Overview of Books 8 to 10 Year 3

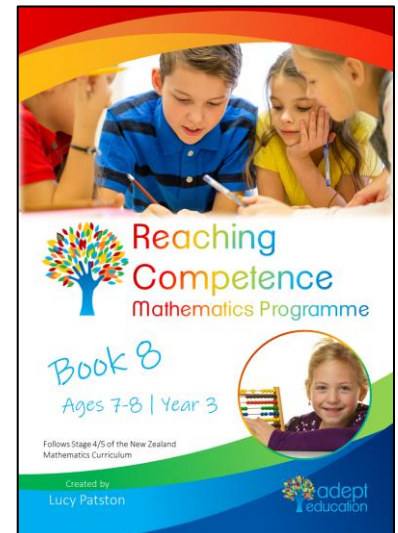
Book 8

Number facts

- Able to identify odd and even numbers
- Able to recall addition and subtraction facts to 20
- Able to use equals to balance equations
- Able to solve number problems
- Understands the link between skip counting and multiplication
- Able to skip count in threes and fours

Problem solving

- Understands the NZ denominations of money
- Able to solve problems using money



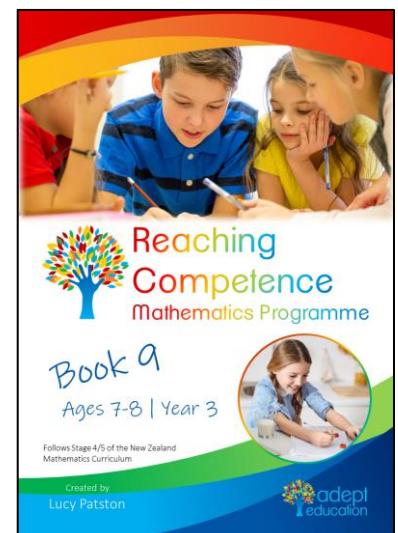
Book 9

Multiplication

- Able to solve multiplication problems by skip counting (advanced)
- Knows the multiplication facts x2
- Knows the multiplication facts x5
- Knows the multiplication facts X10
- Knows multiplication is commutative

Using known number facts

- Able to work with, and round to, tens
- Knows compatible numbers (in fives) to 100
- Able to estimate using known number facts
- Able to add 9 using $+ 10 - 1$
- Able to subtract 9 using $- 10 + 1$



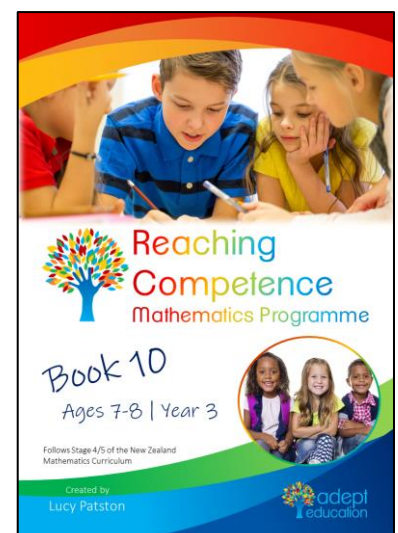
Book 10

Fractions

- Able to recognise halves and quarters of shapes (advanced)
- Able to find half or quarter of a set using doubles
- Able to recognise thirds and fifths of shapes and sets
- Able to recognise wholes with fractions left over

Applying calculation strategies

- Able to add a single-digit to a double-digit number using the part/whole method
- Able to subtract a single-digit from a double-digit number using the part/whole method
- Able to use a calculator efficiently





Overview of Books 11 to 14

Year 4

Book 11

Able to use doubles of teens to solve addition and subtraction
 Able to understand equality
 Able to use standard partitioning to add 2-digit numbers
 Able to use tidy numbers to add 2-digit numbers
 Able to use compensation to add 2-digit numbers
 Able to use difference to subtract 2-digit numbers
 Able to use standard partitioning to subtract 2-digit numbers
 Able to use tidy numbers to subtract 2-digit numbers
 Able to use the combination of notes and coins

Book 12

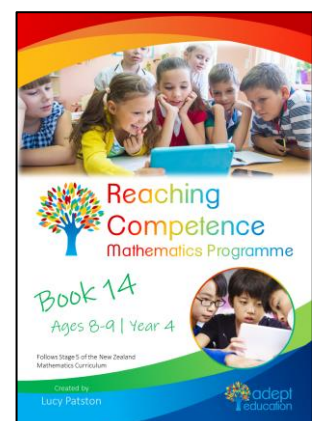
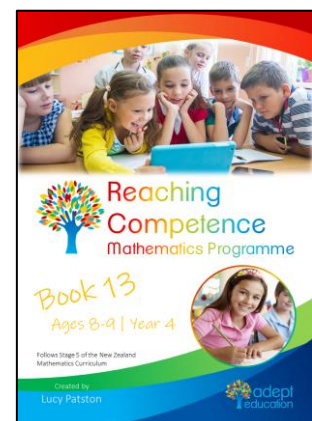
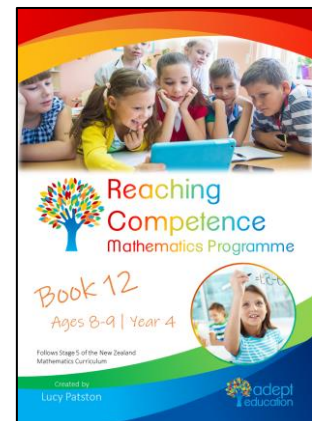
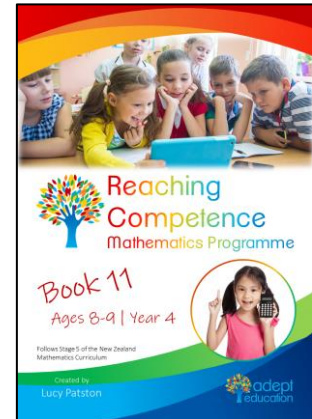
Knows compatible numbers (in ones) to 100
 Understands equal sharing
 Understands making equal groups
 Knows multiplication facts $\times 3$
 Knows multiplication facts $\times 9$
 Has knowledge of the distributive property of multiplication
 Has knowledge of the doubling and halving strategy
 Knows multiplication facts $\times 4$

Book 13

Able to read, write and order 3-digit numbers
 Knows the value of digits in 3-digit numbers
 Able to round 3-digit numbers to the nearest 10 or 100
 Able to use compensation to add 3-digit numbers
 Able to use tidy numbers to add 3-digit numbers
 Able to use standard partitioning to add 3-digit numbers
 Able to use standard partitioning to subtract 3-digit numbers
 Able to use difference to subtract 3-digit numbers
 Able to give change

Book 14

Understands sizes of fractions in relation to the whole
 Able to order unit fractions
 Able to find $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$ and $\frac{1}{5}$ using additive strategies
 Understands division as sharing or grouping
 Able to use a calculator efficiently
 Able to select an appropriate operation to solve a problem
 Able to solve multi-step problems
 Able to solve problems involving money



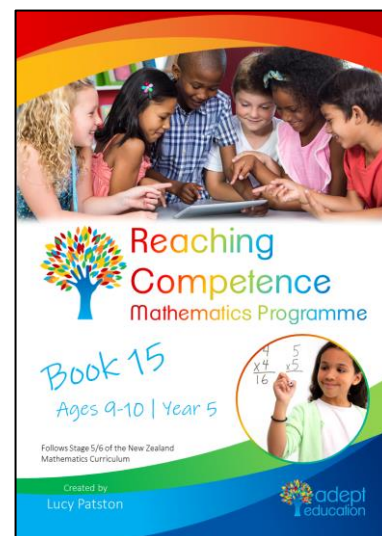


Overview of Books 15 to 17

Year 5

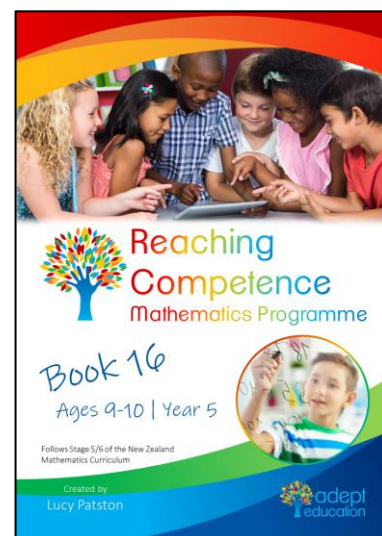
Book 15

Able to use a range of mental strategies for addition
 Able to use a written algorithm for addition
 Able to use a range of mental strategies for subtraction
 Able to use a written algorithm for subtraction
 Able to read numbers greater than one thousand
 Able to explain the value of digits in numbers greater than one thousand
 Knows multiplication facts $\times 6$
 Knows multiplication facts $\times 8$
 Knows multiplication facts $\times 7$
 Has knowledge of the doubling and halving strategy



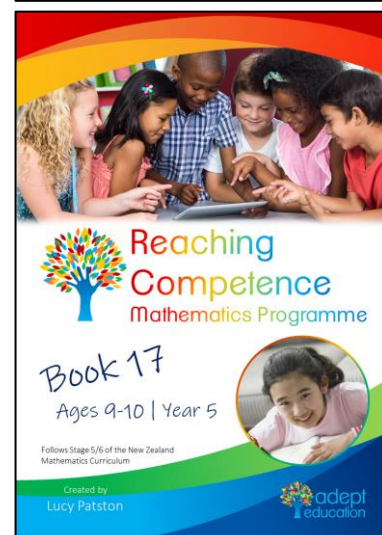
Book 16

Has knowledge of the distributive property of multiplication
 Knows multiplication facts $\times 11$ and $\times 12$
 Able to use multiplication facts to solve division problems
 Able to find non-unit fractions of shapes
 Able to find non-unit fractions of numbers
 Able to add and subtract fractions with the same denominator
 Able to recognise improper fractions
 Able to understand a decimal as a fraction



Book 17

Able to explain the value of digits up to two decimal places
 Able to order decimals with up to two decimal places
 Able to explain zero as a place holder
 Able to add and subtract decimals up to two decimal places
 Able to use a calculator efficiently, including the memory
 Able to use brackets and understand the order of operations
 Able to identify rules to solve problems and patterns
 Able to select an appropriate operation to solve a problem
 Able to solve problems involving decimals



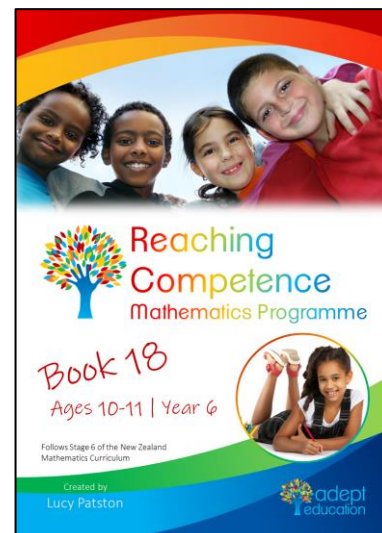


Overview of Books 18 to 20

Year 6

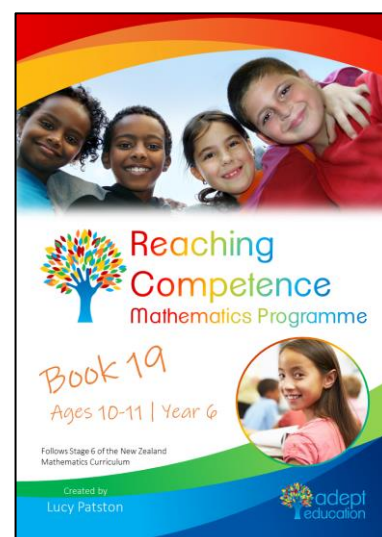
Book 18

- Able to give the value of digits, and sequence and order any whole number
- Able to give the number of tens or hundreds in 4-digit numbers
- Able to use place value to multiply by tens or hundreds
- Able to select from a range of strategies, including a standard written form
- Able to multiply a 2-digit number by a single-digit number using a mental method
- Able to multiply a 2-digit number by a single-digit number using a written method
- Able to multiply a 3-digit number by a single-digit number using a mental method
- Able to multiply a 3-digit number by a single-digit number using a written method
- Able to solve multi-step problems



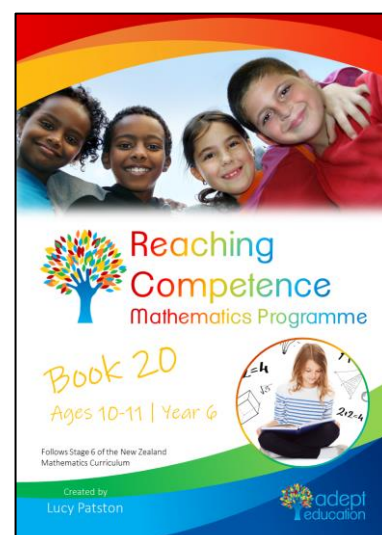
Book 19

- Knows and understands square numbers up to 20×20
- Able to use both recordings of division (\div and \vee)
- Able to use multiplication facts to solve division problems
- Able to divide up to a 3-digit number by a single-digit number
- Able to identify factors and multiples
- Able to order unit fractions
- Able to use improper fractions and mixed numbers
- Knows simple equivalent fractions
- Able to solve simple ratio problems using repeated replication



Book 20

- Able to understand decimals as special fractions
- Able to understand decimals as an extension to the place value system
- Able to order decimal numbers up to three decimal places
- Able to round decimal numbers up to three decimal places
- Able to add and subtract decimal numbers up to three decimal places
- Able to understand percentages as special fractions
- Knows common percentages
- Able to use a calculator efficiently
- Uses knowledge of operations to identify number patterns



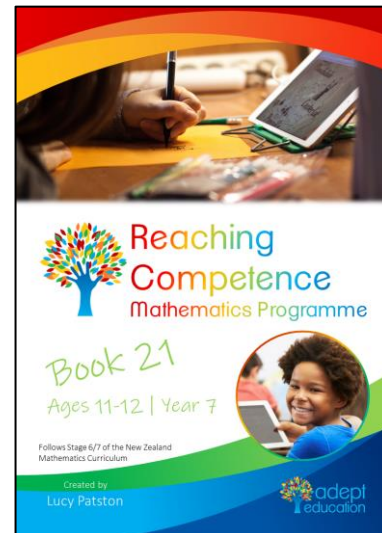


Overview of Books 21 to 23

Year 7

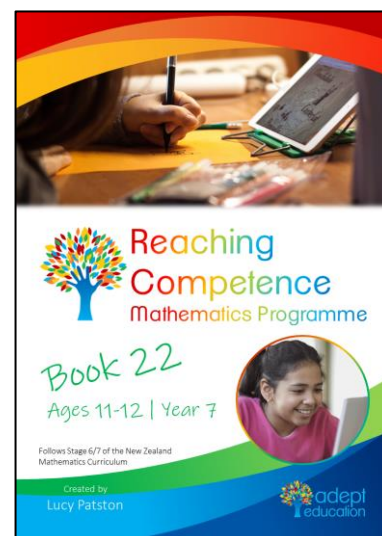
Book 21

Able to use a range of strategies for addition
Able to use a range of strategies for subtraction
Able to identify and estimate addition and subtraction problems
Able to use a range of strategies for multiplication
Able to multiply double digits using area
Able to use a range of strategies for division
Able to divide using a written method



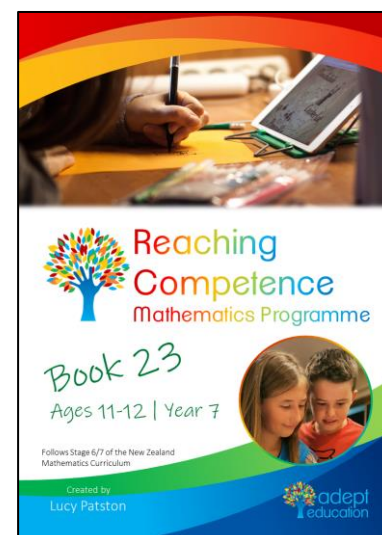
Book 22

Able to understand and compare positive and negative integers
Able to use squares, cubes and square roots
Able to order operations to solve problems
Able to reverse operations to solve problems
Able to use multiplication to find equivalent fractions
Able to use benchmarking to order fractions
Able to find a fraction of a quantity
Able to convert between fractions and decimals



Book 23

Understands percentages and their relationship to fractions and decimals
Able to use a range of strategies to add decimal numbers
Able to use a range of strategies to subtract decimal numbers
Able to multiply integers and decimal numbers
Able to divide integers and decimal numbers
Able to express large numbers using exponents





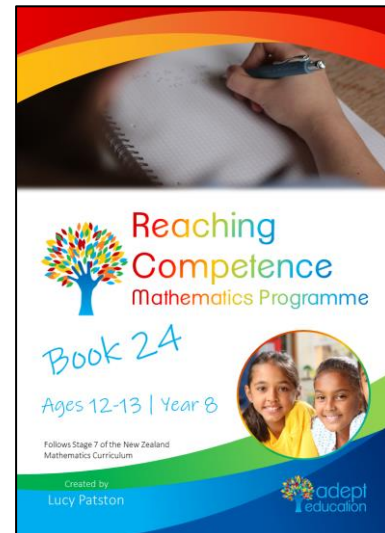
Overview of Books 24 to 26

Year 8

Not published yet – subject to change

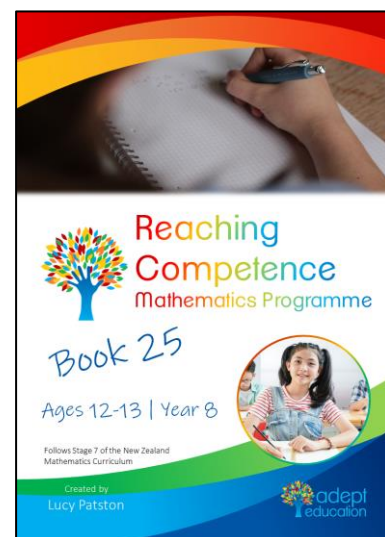
Book 24

Able to recognise and explain prime numbers
Able to use prime factors to find highest common factor
Able to use lowest common factors to solve problems
Able to add integers
Able to subtract integers
Understands divisibility rules
Able to multiply two 2-digit numbers using the written method
Able to multiply and divide numbers ending in zeroes
Able to multiply decimals by whole numbers
Able to divide decimals by whole numbers



Book 25

Able to multiply decimals by decimals
Able to divide decimals by decimals
Is proficient solving problems involving money
Understands multiplicative equivalent fraction patterns
Able to add fractions with like denominators
Able to subtract fractions with like denominator
Able to add and subtract mixed numbers with like denominators
Able to create an equation to explain a pattern
Able to create an equation to explain a rule



Book 26

Able to find the value of an algebraic expression
Able to work with and write one-variable algebraic expressions
Able to
Able to solve problems with percentages
Understands the difference between ratio and proportion
Able to solve proportional problems
Able to solve ratio problems
Able to solve multistep problems across a variety of operations

