SCHOLASTIC

PR1ME and Math Pro Alignment with the New Zealand Refreshed Curriculum

Phase Three Years 7 - 8 Progress Steps

During year 7	During year 8
NUMBER	

Number Structure

During year 7	During year 8
7.1 identify, read, write, compare, and order whole numbers using powers of (e.g., 10,000 = 10⁴) **Math Pro - Year 7 Unit 1.1- 1.3**	8.1 identify, read, write, compare, and order whole numbers and decimals using powers of 10 (e.g., $0.01 = 1 = 10^{-2}$) 100 **Math Pro Supplementary Chapter coming 2025**
7.2 find the highest common factor (HCF) of two numbers under 100, and find the least common multiple (LCM) of two numbers under 10 **Book 6 Chapter 1 Unit 2.1** **Book 6 Chapter 1 Unit 3.1**	8.2 use prime factorisation to represent a number and to find the HCF of two numbers **Math Pro Supplementary Chapter coming 2025**
7.3 use exponents to represent repeated multiplication, and identify square roots of square numbers up to at least 100 **Math Pro - Book 6 Chapter 1 Unit 3A.1 3A.2**	8.3 identify and describe the properties of prime and composite numbers up to at least 100 and cube numbers up to at least 125 **Book 5 Chapter 1 Unit 6.1** **Math Pro Book 5 Chapter 1 Unit 6.2C**

Operations

During year 7	During year 8
7.4 use rounding and estimation to predict results and to check the reasonableness of calculations **Book 4 Chapter 1 Unit 3.2, 3.3, 3.4** **Book 4 Chapter 2 Unit 1.5, 2.6** **Book 4 Chapter 3 Unit 1.5, 2.4** **Book 5 Chapter 1 Unit 2.1, 2.2** **Book 5 Chapter 2 Unit 1.5, 2.5** **Book 6 Chapter 1 Unit 1.4, 1.5, 1.6** **Book 6 Chapter 2 Unit 1.3, 2.3**	8.4 use rounding, estimation, and benchmarks to predict results and to check the reasonableness of **Book 6 Chapter 1 Unit 1.4, 1.5, 1.6** **Book 6 Chapter 2 Unit 1.3, 2.3**
7.5 round whole numbers to any specified power of 10, and round decimals to the nearest tenth, hundredth, or whole number **Book 5 Chapter 1 Unit 2.1, 2.2** **Book 3 Chapter 1 Unit 3.2, 3.3** **Book 4 Chapter 1 Unit 3.2, 3.3, 3.4** **Book 4 Chapter 10 Unit 3.1** **Book 4 Chapter 10 Unit 3.1, 3.2** **Book 5 Chapter 11 Unit 1.5, 2.6, 2.7**	8.5 round whole numbers to any specified power of 10, and round decimals to the nearest tenth, hundredth, thousandth, or whole number **Book 5 Chapter 1 Unit 2.1, 2.2** **Book 6 Chapter 1 Unit 1.4** **Maths Pro Supplement Chapter to be added in 2025**
7.6 recall multiplication facts to at least 10 × 10 and identify and describe the divisibility rules for 2, 3, 5, 9, and 10 **Book 5 Chapter 1 Unit 5.4**	8.6 identify and describe the divisibility rules for 2–11 **Math Pro Supplementary Chapter coming 2025**
7.7 multiply whole numbers **Book 5 Chapter 2 Unit 1.1, 1.2, 1.4** **Book 6 Chapter 2 Unit 1.1, 1.2**	
7.8 divide whole numbers by one- or two-digit divisors (e . g . , 327 ÷ 5 = 65.4 o r 65 ⅖) **Book 5 Chapter 2 Unit 2.4** **Book 5 Chapter 11 Unit 2.2, 2.4** **Book 6 Chapter 2 Unit 2.1, 2.2** **Book 6 Chapter 6 L 2.1, 2.2, 2.3**	8.7 divide whole numbers (e . g . , 327 ÷ 15 = 2 1 . 8 o r 21 ⅕) **Book 5 Chapter 2 Unit 2.4** **Book 5 Chapter 11 Unit 2.2, 2.4** **Book 6 Chapter 2 Unit 2.1, 2.2** **Book 6 Chapter 6 L 2.1, 2.2, 2.3**
7.9 use the order of operations **Book 5 Chapter 2 Unit 3.1, 3.2, 3.3, 3.4**	8.8 use the order of operations **Book 5 Chapter 2 Unit 3.1 - 3.4**
7.10 order, compare, and locate integers on a number line, and explore adding and subtracting **Book 5 Chapter 12 L 1.1, 1.2** **Book 6 Chapter 9 Unit 1.1, 1.2** **Book 6 Chapter 9 Unit 2.1, 2.2**	8.9 order, compare, add, and subtract integers **Book 5 Chapter 12 L 1.1, 1.2** **Book 6 Chapter 9 Unit 1.1, 1.2** **Book 6 Chapter 9 Unit 2.1, 2.2**

Phase Three Years 7 - 8 Progress Steps	
During year 7	**During year 8**
NUMBER cont…	

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7.11   identify, read, write, and represent fractions, decimals (to three places), and percentages

Book 4 Chapter 10
Book 5 Chapter 8
Book 6 Chapter 12 Unit 1.1 - 1.5, 2.2, 2.4
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8.10   identify, read, write, and represent fractions, decimals, and percentages

Book 4 Chapter 10
Book 5 Chapter 8
Book 6 Chapter 12 Unit 1.1 - 1.5, 2.2, 2.4
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	During year 7		During year 8
Rational numbers	7.11 identify, read, write, and represent fractions, decimals (to three places), and percentages **Book 4 Chapter 10** **Book 5 Chapter 8** **Book 6 Chapter 12 Unit 1.1 - 1.5, 2.2, 2.4**		8.10 identify, read, write, and represent fractions, decimals, and percentages **Book 4 Chapter 10** **Book 5 Chapter 8** **Book 6 Chapter 12 Unit 1.1 - 1.5, 2.2, 2.4**
	7.12 compare, order, and convert between fractions, decimals (to three places), and percentages **Book 6 Chapter 12 Unit 2.5**		8.11 compare, order, and convert between fractions, decimals, and percentages **Book 6 Chapter 12 Unit 2.5**
	7.13 multiply and divide numbers by 10, 100, and 1,000 **Book 4 Chapter 3 Unit 1.4** **Book 5 Chapter 2 Unit 1.1** **Book 4 Chapter 3 Unit 2.3** **Book 5 Chapter 2 Unit 2.1**		8.12 multiply and divide numbers by powers of 10 **Book 4 Chapter 3 Unit 1.4** **Book 5 Chapter 2 Unit 1.1** **Book 4 Chapter 3 Unit 2.3** **Book 5 Chapter 2 Unit 2.1**
	7.14 find equivalent fractions, simplify fractions, and convert between improper fractions and mixed numbers **Book 3 Chapter 11 Unit 2.1 - 2.3** **Book 4 Chapter 4 Unit 2.2 - 2.4**		8.13 find equivalent fractions, simplify fractions, and convert between improper fractions and mixed numbers **Book 3 Chapter 11 Unit 2.1 - 2.3** **Book 4 Chapter 4 Unit 2.2 - 2.4**
	7.15 multiply fractions and decimals by whole numbers **Book 5 Chapter 3A Unit 2.1,** **Book 5 Chapter 11** **Book 6 Chapter 6**		8.14 multiply fractions and decimals by whole numbers **Math Pro - Book 5 Chapter 3A Unit 2.1,**
	7.16 find a percentage of a whole number, and find a whole amount, given a simple fraction or percentage (e.g., "25% is $100, what is the total amount?") **Book 6 Chapter 12** **Math Pro Supplementary Chapter coming 2025**		8.15 find a percentage of a whole number, and find a whole amount, given a simple fraction or percentage (e.g., "75% is $45, what is the total amount?") **Book 6 Chapter 12** **Math Pro Supplementary Chapter coming 2025**
	7.17 add and subtract fractions with different denominators of up to a tenth, using equivalent fractions (e.g., ¾ + ⅓) **Book 5 Chapter 3 Unit 1.1 - 1.3**		8.16 add and subtract fractions with different denominators, using equivalent fractions **Book 5 Chapter 3 Unit 1.1 - 1.3**
	7.18 add and subtract decimals to three decimal places, with an emphasis on estimating before calculating **Book 5 Chapter 3 Unit 1.1 - 1.3**		8.17 add, subtract, and multiply decimals, with an emphasis on estimating before calculating **Book 5 Chapter 9 Unit 1.1 - 1.5** **Book 5 Chapter 9 Unit 2.1 - 2.9**
	7.19 use proportional reasoning to explore multiplicative relationships between quantities (e.g., "If there are 3 red for every 7 blue balls, how many balls are there altogether when there are 18 red balls?") **Book 5 Chapter 14A Unit 1.1, 1.2, 1.3, 1.4** **Book 6 Chapter 11 Unit 4.1**		8.18 use proportional reasoning to share with unequal proportions (e.g., "We have 100 stickers to share. For every 1 sticker I get, you get 3. How many do we each get?") **Math Pro Book 5 Chapter 14A** **Book 6 Chapter 11 Unit 4.1**
Financial mathematics	7.20 calculate total cost and change for any amount of money **Book 3 Chapter 5** **Calculating costs throughout Book 4 to 6 in word problems in whole numbers , multiplication and division and decimals. Eg Book 5 p.68**		8.19 create and compare weekly, monthly, and yearly finance plans (e.g., saving plans, phone plans, budgets, and 'buy now, pay later' services) **Book 5 Mathematical Modelling p. 167** **Book 6 Mathematical Modelling pp. 352, 353**
	7.21 apply percentage discounts to whole-dollar amounts. **Book 6 Chapter 12 Unit 4.2**		8.20 apply percentage discounts. **Book 6 Chapter 12 Unit 4.2**

Phase Three Years 7 - 8 Progress Steps

	During year 7	During year 8
	ALGEBRA	
Equations and relationships	7.22 form and solve one-step linear equations (e.g., t + 7 = 12, 2s = 14) **Math Pro - Book 6 Chapter 4 Unit 1A.1-1A.5**	8.21 form and solve one- or two-step linear equations (e.g., 5s + 3 = 18) **Math Pro -Book 6 Chapter 4 Unit 1A.1-1A.5**
	7.23 find the value of an expression or formula, given the values of variables (e.g., "Calculate w + 12 when w = 4") **Math Pro - Book 6 Chapter 4 Unit 1A.1-1A.5**	8.22 find the value of an expression or formula, given the values of variables **Math Pro -Book 6 Chapter 4 Unit 1A.1-1A.5**
	7.24 describe and use the commutative, distributive, and associative properties of operations (e.g., a × b = b × a) **Book 4 Chapter 3 Unit 1.3** **Math Pro - Book 6 Chapter 4 Unit 1A.3, Unit 1A.4**	8.23 simplify algebraic expressions involving sums, products, differences, and single brackets (e.g., using the distributive property, 2(x + 3) + 1 = 2x + 6 + 1 = 2x + 7) **Math Pro - Book 6 Chapter 4 Unit 1.5A** **Math Pro - Book 6 Chapter 4 Unit 1A.1-1A.5**
	7.25 identify the constant increase or decrease in a linear pattern, use variables and algebraic notation to represent the rule in an equation, and use the rule to make conjectures **Math Pro Supplementary Chapter coming 2025**	8.24 determine if a pattern is linear and, if it is, write the equation for the pattern and use the equation to make conjectures **Math Pro Supplementary Chapter coming 2025**
Algorithmic thinking	7.26 create, test, and revise algorithms involving a sequence of steps and decisions. **Book 5 and 6 Mission Possible**	8.25 create, test, revise, and use algorithms to identify, interpret, and explain patterns. **Book 5 and 6 Mission Possible**

Phase Three Years 7 - 8 Progress Steps

During year 7	During year 8

MEASUREMENT

		During year 7		During year 8
Measuring	7.27	estimate and then measure length, area, volume, capacity, mass (weight), temperature, data storage, time, and angle, using appropriate units **Book 4 Chapter 6, 14** **Book 5 Chapter 16** **Book 6 Chapter 7**	8.26	estimate and then measure length, area, volume, capacity, mass (weight), temperature, data storage, time, and angle, using appropriate units **Math Pro Supplementary Chapter coming 2025**
	7.28	select and use an appropriate base measure (e.g., metre, gram, litre) within the metric system, along with a prefix (e.g., kilo-, centi-) to show the size of units **Book 2 Chapter 3 Unit 2.2 (Length)** **Book 2 Chapter 4 Unit 2.2 (Length)** **Book 3 Chapter 8 Unit 2.1, 2.2 (Mass)** **Book 3 Chapter 10 Unit 2.1 (Capacity)** **Book 4 Chapter 15 Unit 2.1 (time)**	8.27	select and use an appropriate base measure within the metric system, along with a prefix to show the size of units **Math Pro Supplementary Chapter coming 2025**
	7.29	convert between metric units of length, mass (weight), and capacity, using whole numbers and decimals to express parts of a unit (e.g., 724 g = 0.724 kg) **Book 4 Chapter 6 Unit 1.3** **Book 4 Chapter 10 Unit 2.1** **Math Pro - Book 5 Chapter 3A L 5.1 - 5.4** **Book 6 Chapter 7**	8.28	convert between metric measurement units, including square units **Book 4 Chapter 6 Unit 1.3** **Book 4 Chapter 10 Unit 2.1** **Math Pro - Book 5 Chapter 3A L 5.1 - 5.4** **Book 6 Chapter 7**
	7.30	find speed, given distance and time **Math Pro - Book 6 Chapter 18A Unit 1.3 - 1.5**	8.29	find distance, given speed and time; or time, given distance and speed **Math Pro - Book 6 Chapter 18A Unit 1.2, 1.5**
	7.31	read, interpret, and use timetables and charts that present information about duration **Book 4 Chapter 15 Unit 4.1, 4.2**	8.30	read, interpret, and use timetables, charts, and results that present information about duration **Book 4 Chapter 15 Unit 4.1 - 4.2**
	7.32	convert between units of time, and solve duration problems that involve fractions of time **Math Pro Book 5 Chapter 3A Unit 5.1, 5.2 , 5.3, 5.4**	8.31	convert times to a common unit, such as seconds or minutes, and use decimal units of time (milliseconds) **Math Pro - Book 5 Chapter 3A Unit 5.1, 5.2 , 5.3, 5.4**
Perimeter, area, and volume	7.33	calculate the perimeter and area of composite shapes composed of triangles and rectangles. **Book 6 Chapter 14 (Squares and Rectangles)** **Math Pro - Book 6 Chapter 14A Unit 2.4**	8.32	calculate the volume of triangular prisms and shapes composed of rectangular prisms. **Math Pro - Book 6 Chapter 14B Unit 2.1, 2.2,**

Phase Three Years 7 - 8 Progress Steps

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	GEOMETRY	
Shapes	7.34 classify and name shapes based on their attributes (e.g., triangles, pyramids) **Book 1 Chapter 8 Unit 1.1 - 1.3** **Book 1 Chapter 9 Unit 1.1 - 1.2** **Book 2 Chapter 16** **Book 2 Chapter 17** **Book 3 Chapter 14 Unit 1.1, 1.2** **Book 4 Chapter 12 Unit 1.3, 2.1, 2.2** **Book 6 Chapter 5 Unit 2.2**	8.33 describe triangles, quadrilaterals, and other polygons in relation to their sides, diagonals, and angles **Book 4 Chapter 12 Unit 1.3** **Book 6 Chapter 5 Unit 1.1, 2.1,**
Shapes	7.35 identify and describe angles at a point, angles on a straight line, and vertically opposite angles **Book 5 Chapter 4 Unit 1.1 - 1.3**	8.34 reason about unknown angles in situations involving angles at a point, angles on a straight line, vertically opposite angles, and interior angles of triangles and quadrilaterals **Book 5 Chapter 4 Unit 1.1- 1.3** **Math Pro Supplementary Chapter coming 2025**
Spatial reasoning	7.36 visualise, construct, and draw plan views for front, back, left, right, and top views of 3D shapes **Math Pro Supplementary Chapter coming 2025**	8.35 visualise and draw nets for prisms with a fixed cross section **Book 4 Chapter 13 Unit 1.2, 2.1**
Spatial reasoning	7.37 transform 2D shapes, including composite shapes, by resizing by a whole number or unit fraction **Math Pro Supplementary Chapter coming 2025**	8.36 recognise the invariant properties of 2D and 3D shapes under different transformations **Math Pro Supplementary Chapter coming 2025**
Pathways	7.38 interpret and communicate the location of positions and pathways using coordinates, angle measures, and the 8 main and halfway compass points (e.g., NE, which is 45° E from N). **Book 3 Chapter 15 Unit 2.1, 2.2** **Book 4 Chapter 9 Unit 1.2, 1.3, 2.1**	8.37 use map scales, compass points, distance, and turn to interpret and communicate positions and pathways in coordinate systems and grid reference systems. **Math Pro Supplementary Chapter coming 2025**

Phase Three Years 7 - 8 Progress Steps

	During year 7	During year 8
	STATISTICS	
Problem	7.39 investigate, using multivariate datasets, summary, comparison, time-series, and relationship situations for paired categorical data by: – posing an investigative question about a local community matter – making conjectures or assertions about expected findings **Math Pro Supplementary Chapter coming 2025**	8.38 investigate, using multivariate datasets, summary, comparison, time-series, and relationship situations by: – posing an investigative question about a local community matter – making conjectures or assertions about expected findings **Math Pro Supplementary Chapter coming 2025**
Plan	7.40 plan how to collect or source data to answer the investigative question, including: – determining or identifying the variables needed – planning how to collect data for each variable (e.g., how to measure it) or finding out how provided data was collected – identifying the group of interest or who the data was collected from – building awareness of ethical practices in data collection by strategic questioning of data-collection questions or methods **Math Pro Supplementary Chapter coming 2025**	8.39 plan how to collect or source data to answer the investigative question, including: – determining or identifying the variables needed – planning how to collect data for ech variable (e.g., how to measure it) or finding out how provided data was collected – identifying the group of interest or who the data was collected from – building awareness of ethical practices in data collection by strategic questioning of data-collection questions or methods **Math Pro Supplementary Chapter coming 2025**
Data	7.41 collect primary data or gather information about variables in sourced data, create a simple informal data dictionary, and check for errors **Math Pro Supplementary Chapter coming 2025**	8.40 collect or source data, including: – Checking for errors and following up and correcting them when possible – creating an informal data dictionary with information that will help others know about the context **Math Pro Supplementary Chapter coming 2025**
Analysis	7.42 create data visualisations for the investigation **Math Pro Supplementary Chapter coming 2025**	8.41 create data visualisations for the investigation, using multiple visualisations to provide different views of the data **Math Pro Supplementary Chapter coming 2025**
Analysis	7.43 make statements about the data, including its features and context, in descriptions of distributions **Math Pro Supplementary Chapter coming 2025**	8.42 make statements about the data, including its features and context, in descriptions of distributions **Math Pro Supplementary Chapter coming 2025**
Conclusion	7.44 communicate findings in context to answer the investigative question, using evidence from analysis, and comparing findings to initial conjectures or assertions and their existing knowledge of the world **Math Pro Supplementary Chapter coming 2025**	8.43 communicate findings in context to answer the investigative question, using evidence from analysis, considering possible explanations for findings, and comparing findings to initial conjectures or assertions and their existing knowledge of the world **Math Pro Supplementary Chapter coming 2025**
Statistical literacy	7.45 evaluate the findings of others to check if their claims or statements are supported by the data visualisations they use. **Math Pro Supplementary Chapter coming 2025**	8.44 evaluate the data-collection methods, data visualisations, and findings of others' statistical investigations to see if their claims are reasonable. **Math Pro Supplementary Chapter coming 2025**

Phase Three Years 7 - 8 Progress Steps

	During year 7	During year 8
	PROBABILITY	
Probability investigations	7.46 plan and conduct probability experiments for chance-based situations, including undertaking a large number of trials using digital tools, by: – posing an investigative question – anticipating what outcomes are possible and which of them are more or less likely to occur – identifying and systematically listing possible answers to the investigative question – collecting and recording data – creating data visualisations for the distribution of observed outcomes – describing what these visualisations show – finding the probability estimates for the different outcomes – answering the investigative question – identifying similarities and differences between their findings and those of others – reflecting on anticipated outcomes – comparing findings from the probability experiment and associated theoretical probabilities, as appropriate **Math Pro Supplementary Chapter coming 2025**	8.45 plan and conduct probability experiments for chance-based situations, including undertaking a large number of trials using digital tools, by: – posing an investigative question – anticipating what outcomes are possible and which of them are more or less likely to occur – identifying and systematically listing possible answers to the investigative question – collecting and recording data – creating data visualisations for the distribution of observed outcomes and for all possible outcomes for theoretical probability models, where they exist – describing what these visualisations show – finding the probability estimates for the different outcomes – proposing possible theoretical outcomes and associated probabilities, for situations where no theoretical model exists – answering the investigative question – identifying similarities and differences between their findings and those of others – reflecting on anticipated outcomes – identifying similarities and differences between findings from the probability experiment and associated theoretical probabilities, as appropriate **Math Pro Supplementary Chapter coming 2025**
Critical thinking in probability	7.47 identify, explain, and check others' statements about chance-based investigations, referring to evidence. **Math Pro Supplementary Chapter coming 2025**	8.46 identify, explain, and check others' statements about chance-based investigations, referring to evidence. **Math Pro Supplementary Chapter coming 2025**