Manipulatives to Support
PR1ME Mathematics For Aotearoa New Zealand Schools
Year 0 -8

YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7	YEAR 8
NUMBER, OPERATIONS AND ALGEBRA								
Counters; connecting cubes; beads	Counters; connecting cubes; beads	Counters; connecting cubes	Counters; connecting cubes	Counters; connecting cubes	Counters; connecting cubes	Counters; connecting cubes	Two-colour counters	Two-colour counters
Five-frames and ten-frames	Ten-frames	Ten-frames	Base ten blocks	Base ten blocks	Place value charts, cards, discs: whole numbers and hundredths	Place value charts, cards and discs: billions to thousandths	Signed number lines	Number lines for negative fractions and decimals
Number cards 0-20; number strips	Number cards and lines to 100	Number lines and cards to 120	Whole-number place value charts, cards and discs	Whole-number and tenths place value charts, cards and discs	Base ten blocks for decimals	Number lines	Fraction strips and cut-outs	Place value resources: billions to ten-thousandths; powers of ten
Number-bond mats	Base ten blocks	Base ten blocks	Number lines	Number lines; multiplication arrays	Number lines	Fraction strips and multiple-whole fraction sets	Place value resources: powers of ten and thousandths	Fraction strips; transparent overlays
Pattern blocks	Place value charts, cards and discs (tens and ones)	Place value charts, cards and discs	Multiplication arrays	Fraction strips and multiple-whole fraction sets	Fraction strips and cut-outs	Percentage grids; bar strips	Percentage grids; bar strips	Percentage grids
	Number-bond mats	Grouping and array mats	Fraction strips and cut-outs	NZ play money	Hundred grids for percentages	Square tiles and cubes for square and cube numbers	Algebra tiles; balance mats	Ratio and bar strips
	Fraction cut-outs: halves and quarters	Fraction cut-outs: halves, thirds and quarters	NZ play money	Growing-pattern materials	NZ play money	Growing-pattern materials	Square tiles; connecting cubes	Algebra tiles; balance mats
	NZ play money; pattern materials	NZ play money; repeating-pattern materials			Array materials for factors and multiples			Square tiles; unit cubes
GEOMETRY AND MEASUREMENT								
Attribute blocks; 2D shape cut-outs	2D shape cut-outs	30 cm rulers; informal measuring units	30 cm and metre rulers; measuring tapes	Rulers; measuring tapes	Rulers; measuring tapes	Rulers; measuring tapes	Rulers; tapes; protractors; set squares	Rulers; measuring tapes; protractors
Monthly and yearly calendars	Geometric solids; wooden blocks	Pan balance; gram weights	Pan balance; weights	Metric scales; weights	Metric weighing scales	Metric scales; graduated jugs and beakers	Hinged angle models	Polygon and circle cut-outs
Objects for comparing length and size	Position and direction mats	Metric weighing scales	Metric weighing scales	Graduated jugs and beakers	Graduated jugs and beakers	Protractors; set squares	Triangle and polygon cut-outs	Four-quadrant coordinate grids
Pan balance	Informal measuring units	Graduated containers (mL)	Litre and millilitre jugs and containers	Clocks; Celsius thermometers	1-litre cubic container	Polygon cut-outs	Prisms and pyramids with foldable nets	Mirrors; tracing paper; scaling grids
Containers of different capacities	Pan balance; containers	2D shapes; geometric solids	Analogue and digital clocks	2D shapes; geometric solids	Protractors; set squares	Prism and pyramid models	Four-quadrant coordinate grids	Scale maps: four-digit grid references; compass roses
Cubes for filling containers	Calendars	Mirrors; shape cut-outs for slides, flips and turns	2D shape cut-outs; mirrors	Grid maps	Clocks; Celsius thermometers	Clocks; stopwatches; Celsius thermometers	Mirrors; tracing paper	Parallelogram and trapezium dissection pieces
	Analogue and digital clocks	Grid maps; calendars; clocks	Grid maps; geoboards	Mirrors; tracing paper	Prism models; grid maps	Grid maps; mirrors; tracing paper	Directional compasses or compass roses; grid maps	Rectangular and triangular prism models; unit cubes
			Square tiles; centimetre grids	Angle-turn models; geoboards	Mirrors; tracing paper; geoboards	Tessellation pieces; geoboards	Geoboards; area dissection pieces	Metric scales; jugs; beakers; Celsius thermometers
				Square tiles; unit cubes	Square tiles; unit cubes	Triangle area cut-outs; unit cubes	Unit cubes; metric measuring equipment; timers	Timers and time displays (milliseconds)
STATISTICS AND PROBABILITY								
Sorting trays or hoops	Sorting materials	Counters; data cards	Counters; data cards	Counters; data cards	Data cards; graph templates	Counters for modelling mean	Movable data cards	Movable data cards
Counters and classroom objects for sorting	Tally-chart templates	Tally-chart and picture-graph templates	Tally-chart templates	Dot-plot templates	Dice; coins; spinners	Data cards; dot-plot and time-series graph templates	Counters and cubes for mean	Counters for comparing measures of central tendency
	Picture-graph mats and movable picture cards	Dot-plot templates	Dot-plot and bar-graph templates	Bar-graph templates	Opaque bags; coloured counters	Dice; coins; spinners	Dot-plot and clustered/stacked bar-graph templates	Graph templates, including double-line graphs
						Opaque bags; coloured counters	Dice; coins; spinners	Dice; coins; spinners; opaque bags; coloured counters
							Opaque bags; coloured counters	Tree-diagram templates

SHARED CLASSROOM SUPPLIES | Paper/card, scissors, glue, coloured pencils, craft sticks, rubber bands, string, straws, modelling clay and paper clips.

Print and laminate reusable mats, cards, grids and cut-outs. Reuse resources across years. Year 8 supporting equipment: calculators with square-root and cube-root capability.

Planning guide adapted from the September 2026 PR1ME NZ Years 0-8 resource list. Recommendations include physical manipulatives, measuring equipment and reusable teaching resources; check individual lesson requirements.