

Transition: Early Additive to Advanced Additive

Domain: Algebraic Thinking

Achievement Objectives	Algebra: Level 3
	<p><u>Patterns and Relationships AO2:</u> Connect members of sequential patterns with their ordinal position and use tables, graphs, and diagrams to find relationships between successive elements of number and spatial patterns.</p> <p><u>Equations and Expressions AO1:</u> Record and interpret additive and simple multiplicative strategies, using words, diagrams, and symbols, with an understanding of equality.</p>

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Strategies being developed	References
<p>Find relationships in repeating and sequential patterns and represent the relationships using additive and simple multiplicative rules, e.g. In the sequence 3, 7, 11, 15, ..., the tenth number can be found by $3 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 39$</p>	<p>Teaching Number through Measurement, Geometry, Algebra, and Statistics (Book 9) Sticky Moments (34-38)</p> <p>Figure It Out Alg 2-3 Pick the Pattern (1) Alg 2-3 The Mystery of the Vanishing Pattern (2) Alg 2-3 Sticky Moments (5) Alg 3 Terrific Tiles (1) Alg 3 Sticking Around (2) Alg 3 Tukutuku Patterns (3) Alg 3 Pegging Problems (4) Alg 3 Pattern Parade (5)</p> <p>nzmaths website Matchstick Patterns Hundreds of Patterns</p>

Strategies being developed	References
Find relationships in patterns and ordered pairs, and describe the relationships using word rules, tables, and graphs.	<p>Teaching Number through Measurement, Geometry, Algebra, and Statistics (Book 9) Sticky Moments (34-38)</p> <p>Figure It Out Alg 2-3 Punching Numbers (3) Alg 2-3 Follow that Arrow (4) Alg 3 Biscuit Binge (14) Alg 3 Kai Moana (16) Alg 7/8 4.3 Letter Design (10) Alg 7/8 4.3 Building Patterns Constantly</p>
Use a rule to create a pattern.	<p>Figure It Out Alg 2-3 Number Nibbles (16) Alg 3 Operation Time (10)</p>
Interpret relationships shown in equations using the properties of operations and understanding of the equals sign.	<p>Figure It Out Alg 2-3 Crunch Machine (17) Alg 2-3 Perfect Patterns (18) Alg 2-3 What Goes Where? (20) Alg 2-3 Something Fishy (22) Alg 2-3 The Potluck Paint Company (24) Alg 3 Seesaw Numbers (19) Alg 3-4 Robot Rescue (23)</p> <p>nzmaths website Properties of Operations Cups and Cubes</p>

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