**PATTERN & ALGEBRA SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Foundation | **Sort and classify familiar objects and explain the basis for these classifications. Copy, continue and create patterns with objects and drawing.**  Learning experience  Whole class  1.1, 1.2, 2.4  Learning experience  Whole class  7.3, 7.4  Small group  7.3.1, 7.3.2. 7.4.1, 7.4.2  Learning experience  Whole class  12.3, 12.4  Small group  12.3.1, 12.3.2, 12.4.1, 12.4.2  Learning experience  Whole class  13.1, 13.2  Small group  13.1.1, 13.1.2, 13.2.1, 13.2.2 |  | Perfect Patterns | Flare  Pattern Maker |

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 1 | **Investigate and describe number patterns formed by skip counting and patterns with objects**  Lesson  1.4, 1.5  4.1, 4.2  7.1, 7.2  Problem Solving  16.2 |  |  | Flare  Pattern Maker |

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 2 | **Describe patterns with numbers and identify missing elements**  ***(Stepping Stones goes beyond)***  Lesson  4.1, 4.2  Problem Solving  1.2, 3.1, 4.1  Lesson  5.1, 8.1, 8.2  Problem Solving  11.1  Lesson  15.1  Problem Solving  13.2, 15.1  **Solve problems by using number sentences for addition or subtraction**  Lesson  1.1, 1.2, 1.3, 1.4, 1.5  4.4  6.1, 6.2, 6.3, 6.6, 6.7  7.4,  8.2  10.1, 10.2, 10.3  12.2, 12.3, 12.4 | Using A Teaching Sequence for Repeating Patterns Rosemary Irons | Bears on Buses | Flare  Pattern Maker  Number Track  Pan Balance  Dominoes  Number line |

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| **AusVels Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 3 | **Describe, continue and create number patterns resulting from performing addition or subtraction**  Lesson  2.1  8.4  13.6, 13.7, 13.8 |  |  | Flare  Numberline  Numberboard  Pan balance |

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 4 | **Explore and describe number patterns resulting from performing multiplication**  Lesson  3.2, 3.3  6.1, 6.2, 6.4, 7.3  10.1, 10.3  14.1, 14.2, 14.3  **Solve word problems by using number sentences involving multiplication or division+- where there is no remainder**  Lesson  2.1, 2.2, 2.3, 2.4,3.2  6.3, 7.2, 8.1, 8.2, 8.3, 8.6, 8.8, 10.1, 10.3, 16.3  **Using equivalent number sentences involving addition and subtraction to find unknown quantities**  Lesson  1.8, 3.6, 3.8  6.7, 6.8, 8.5  11.1, 11.2 | Teaching The doubling Strategy for Multiplication facts x2, x4, x8 Calvin Irons  Teaching The Build Up Build Down Strategy for Multiplication facts x6 x9 Calvin Irons  Comparing Mental Strategies addition Brian Tickle |  | Flare  Number board |

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 5 | **Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition and subtraction**  ***(Stepping Stones goes beyond by investigating patterns that relate to multiples and place value)***  Lesson  2.1, 2.2  6.1, 6.6, 6.7, 6.8  **Use equivalent number sentences involving multiplication and division to find unknown quantities**  Lesson  16.5 |  |  | Flare  Numberline |

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| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 6 | **Continue and create sequences involving whole numbers, fractions and decimals. Describe the rule used to create the sequence.**  Lesson  5.3, 5.4  9.4  13.1, 13.2, 1`3.3, 13.4  **Explore the use of brackets and order of operations to write number sentences**  *Content covered in Level 5*  Lesson  16.6, 16.7, 16.8 |  |  |  |

RICH TASKS FOR PATTERN AND ALGEBRA SCOPE & SEQUENCE

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| Level F | Maths 300 lessons  Crazy animals  Tackling Times Tables  Around Our Neighbourhood  Counting Machines  Playing with Patterns   |  |  | | --- | --- | | **Hands-on** | **Teaching** | | **Guidelines in Number** [***Sorting and ordering***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1513/0.html#page=1)  ***Developing mathematics with UNIFIX*** p12 Snap-clap, p14 Making long trains, p16 Repeating patterns, p18 Growing patterns, p20 Carriages in the train shed,  p28 Unifix stacks, p30 Snakes, p34 Number patterns | ***Teach algebra for understanding*** [**1 Patterns without numbers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=3) | |
| Level 1 | Maths 300 lessons  Crazy animals, Tackling Times Tables, Around Our Neighbourhood, Counting Machines, Playing with Patterns   |  |  |  | | --- | --- | --- | | **Hands-on** | **ICT** | **Teaching** | | ***Guidelines in Number*** [***Patterns p9***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1513/0.html#page=20),  [***Skip counting p15-31***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=1)  ***Developing mathematics with UNIFIX*** p12 Snap-clap, p14 Making long trains, p16 Repeating patterns, p18 Growing patterns,  p20 Carriages in the train shed, p28 Unifix stacks, p30 Snakes, p34 Number patterns  ***Cornerstones in Number: Counting Ages 5-9*** Twos, fives and tens (p93-102)  ***Active Learning 2 (Number & Algebra)*** [***Quick Maths Algebra A-H***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/138/1392/0.html#page=2) | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Pattern and sequences (collection),  Monster choir: making patterns, missing monsters, look and listen Musical number patterns:  - musical counter, music maker, odds and evens, musical times, the challenge,  Number trains (many) | ***Teach algebra for understanding*** [**2 Number patterns**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html)  ***DevelopmentalContinuum***  [**2.0 Skip counting**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N20001P.htm)Activity 1 Counting gamesActivity 2 Whisper countActivity 3 How far can you go?Activity 4 Using the hundreds grid for counting  ***People Count*** [***86 Missing values***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=49) | |
| Level 2 | Maths 300 lessons  Crazy animals, Tackling Times Tables, Around Our Neighbourhood, Counting Machines, Playing with Patterns   |  |  | | --- | --- | | **ICT** | **Teaching** | | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Pattern and sequences (collection),  Squirt,  Hopper | ***Teach algebra for understanding*** [7 Addition number sentences](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=13), [8 Missing numbers in patterns](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=14), [9 Number sentences](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=15)  ***Developmental Continuum***  [**2.5 The guess-check-improve strategy**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/wmathly/w25ip.htm)  Activity 1: Mystery number Activity 2: Ducks and horses Activity 3: Additional problems  [**2.5 The meaning of the equal sign**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/St25001P.htm)  Activity 1: Equations from a mat, Activity 2: Matching card game, Activity 3: What goes in the box?  [**2.75 Properties of operations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st275ip.htm)  Activity 1: Demonstrating and using the distributive property Activity 2: Mental computation examples Activity 3: Properties that don't work  Activity 4: Distributive property used with subtraction  [**2.75 More about properties of operations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st275ma.htm)  ***People Count*** [***86 Missing values***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=49) | |
| Level 3 | Maths 300 lessons  Crazy animals, Tackling Times Tables, Counting Machines, [4-Arm Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=48), [Billiard Ball Bounces](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=187), [Chess Queens](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=260), [Colour Spots on a Number Line](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=249), [Crosses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=244), [Eric the Sheep](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=151), [Finger Knitting Good](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=238), [Gauss Beats the Teacher](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=148), [Heads and Legs](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=173), [Hunting for Stars](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=183), [Lining Up](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=154), [Newspaper Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=239), [Simple, Elegant, Elusive](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=188), [Spirolaterals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=185), [The Mushroom Hunt](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=261), [Triangles and Colours](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=284), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Unseen Triangles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=133)   |  |  | | --- | --- | | **ICT** | **Teaching** | | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx) ***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Pattern and sequences (collection),  Musical number patterns, Hopper | ***Teach algebra for understanding*** [**2 Number patterns**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=4)[**3 Using simple rules to generate number patterns**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=5)  ***People Count*** [***86 Missing values***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=49) | |
| Level 4 | |  |  |  | | --- | --- | --- | | **ICT** | **Teaching** | **Whole-class investigations** | | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Musical number patterns, Hopper, Squirt, Exploring division and multiplication (collection) | ***Teach algebra for understanding*** [**3 Using simple rules to generate number patterns**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=5)[**9 Number sentences**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=15)  ***Developmental Continuum***  [**2.5 The guess-check-improve strategy**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/wmathly/w25ip.htm)  Activity 1: Mystery number  Activity 2: Ducks and horses  Activity 3: Additional problems  [**2.5 The meaning of the equal sign,**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/St25001P.htm)  Activity 1: Equations from a mat  Activity 2: Matching card game  Activity 3: What goes in the box?  [**2.75 Properties of operations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st275ip.htm)  Activity 1: Demonstrating and using the distributive property  Activity 2: Mental computation examples Activity 3: Properties that don't work Activity 4: Distributive property used with subtraction  [**2.75 More about properties of operations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st275ma.htm)  ***Assessment for Common Misunderstandings***  [**Level 6.1 Understanding Equivalence**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/61equivalence.htm)  ***People Count*** [***83 Number patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=11) [***86 Missing values***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=49) | ***Units of work (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)***  Introducing arrays Multiplying and dividing with arrays |   Maths 300 lessons  Crazy animals, Tackling Times Tables, Counting Machines, [4-Arm Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=48), [Billiard Ball Bounces](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=187), [Chess Queens](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=260), [Colour Spots on a Number Line](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=249), [Crosses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=244), [Eric the Sheep](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=151), [Finger Knitting Good](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=238), [Gauss Beats the Teacher](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=148), [Heads and Legs](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=173), [Hunting for Stars](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=183), [Lining Up](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=154), [Newspaper Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=239), [Simple, Elegant, Elusive](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=188), [Spirolaterals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=185), [The Mushroom Hunt](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=261), [Triangles and Colours](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=284), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Unseen Triangles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=133) [Addition Totals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=152), [Consecutive Sums](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=269), [Crossing the River](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=156), [Find my Pattern](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=246), [Match Triangles (Triangle Chains)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=293), [Monkeys and Bananas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=245), [Painted Cubes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=171), [Pick's Rule](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=300), [Sphinx](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=158), [The Farmer's Puzzle](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=149), [Twelve Days of Christmas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=296), [Walking with Children](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=207), [What's My Rule?](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=167) |
| Level 5 | |  |  |  | | --- | --- | --- | | **ICT** | **Teaching** | **Whole-class investigations** | | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Squirt, Hopper | ***Teach algebra for understanding*** [**10 Solving equations - simple cases**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=16)  ***Developmental Continuum*** [**3.25 Missing number sentences**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st325ip.htm)  Activity 1: Write your own story and number sentence Activity 2: Cover it up Activity 3: Can you do it another way?  [**4.5 Structure of equations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/St45003P.htm)  Activity 1: From sequences of operations to flow-charts and equations Activity 2: From algebraic equations to flow-charts Activity 3: Solving equations using flow-charts  ***Assessment for Common Misunderstandings***  [**Level 6.2 Number properties**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/62numprops.htm)  ***People Count***  [***86 Missing values***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=49) | [***Maths300***](http://www.maths300.esa.edu.au) Crazy animals, Tackling Times Tables, Counting Machines, [4-Arm Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=48), [Billiard Ball Bounces](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=187), [Chess Queens](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=260), [Colour Spots on a Number Line](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=249), [Crosses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=244), [Eric the Sheep](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=151), [Finger Knitting Good](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=238), [Gauss Beats the Teacher](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=148),  [Heads and Legs](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=173), [Hunting for Stars](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=183), [Lining Up](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=154), [Newspaper Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=239), [Simple, Elegant, Elusive](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=188), [Spirolaterals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=185), [The Mushroom Hunt](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=261), [Triangles and Colours](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=284), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Unseen Triangles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=133)  [Arithmagons](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=195), [Backtracking](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=153), [Cracked Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=186), [Factors](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=302), [Game of 31](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=160), [Garden Beds](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=122), [Jumping Kangaroos](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=174), [Magic Cube](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=217), [Painted Rods](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=172), [Staircases](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=247), [Take Away Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=234), [Pizza Toppings](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=206), [Red to Blue](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=258), [Same or Different](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=283), [Snail Trail](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=196)  [Addition Totals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=152), [Consecutive Sums](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=269), [Crossing the River](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=156), [Find my Pattern](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=246), [Match Triangles (Triangle Chains)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=293), [Monkeys and Bananas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=245), [Painted Cubes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=171), [Pick's Rule](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=300), [Sphinx](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=158), [The Farmer's Puzzle](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=149), [Twelve Days of Christmas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=296), [Walking with Children](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=207), [What's My Rule?](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=167)  ***RIME (Algebra):***  [***A1 Algebra rules***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4212/0.html),  [***A2 Calendar patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4205/0.html),  [***A3 Rollers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4231/0.html),  ***A4 Paving patterns*** | |
| Level 6 | |  |  |  | | --- | --- | --- | | **ICT** | **Teaching** | **Whole-class investigations** | | ***Learning Objects (***[***FUSE***](https://fuse.education.vic.gov.au/pages/Teacher.aspx)***or*** [***Scootle***](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3)***)*** Musical number patterns, Hopper, Circus Tower, Bridge builder, Exploring the order of operations | ***Teach algebra for understanding*** [**4 Sequences and rules**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4501/0.html#page=6)  ***Teach whole numbers for understanding*** [**26 Order of operations**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=3)[**27 Distributive laws**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=4)  ***Developmental Continuum***  [**4.0 Rules for sequences**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/ST40003P.htm)  Activity 1: Recycling numbers  Activity 2: Even and odd numbers  Activity 3: Linking recursion rules and formulas Activity 4: Familiarity with numbers is the key to building patterns  Activity 5: Why have both recursion rules and formulas?  Activity 6: Recursion rules and spreadsheets  [**4.0 More about rules**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/St40003G.htm)  [**4.25 The meaning of letters**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/St42504P.htm)  Activity 1: What's my value of n? Activity 2: How many letters in my name? Activity 3: Confusions about the meaning of letters Activity 4: Algebraic letters have a fixed meaning within a problem  ***Assessment for Common Misunderstandings***  [**Level 6.4 Understanding algebraic language**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/64algebraic.htm)  ***People Count*** [***82 Using formulas***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=1) [***83 Number patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=11) [***84 Describing with formulas***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=22) [***85 Graphs show relationships***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=34) | [***Maths300***](http://www.maths300.esa.edu.au)  Crazy animals, Tackling Times Tables, Counting Machines, [4-Arm Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=48), [Billiard Ball Bounces](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=187), [Chess Queens](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=260), [Colour Spots on a Number Line](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=249), [Crosses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=244), [Eric the Sheep](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=151), [Finger Knitting Good](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=238), [Gauss Beats the Teacher](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=148),  [Heads and Legs](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=173), [Hunting for Stars](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=183), [Lining Up](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=154), [Newspaper Shapes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=239), [Simple, Elegant, Elusive](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=188), [Spirolaterals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=185), [The Mushroom Hunt](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=261), [Triangles and Colours](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=284), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Unseen Triangles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=133)  [Arithmagons](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=195), [Backtracking](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=153), [Cracked Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=186), [Factors](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=302), [Game of 31](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=160), [Garden Beds](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=122), [Jumping Kangaroos](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=174), [Magic Cube](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=217), [Painted Rods](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=172), [Staircases](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=247), [Take Away Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=234), [Pizza Toppings](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=206), [Red to Blue](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=258), [Same or Different](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=283), [Snail Trail](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=196)  [Addition Totals](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=152), [Consecutive Sums](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=269), [Crossing the River](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=156), [Find my Pattern](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=246), [Match Triangles (Triangle Chains)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=293), [Monkeys and Bananas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=245), [Painted Cubes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=171), [Pick's Rule](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=300), [Sphinx](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=158), [The Farmer's Puzzle](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=149), [Twelve Days of Christmas](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=296), [Walking with Children](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=207), [What's My Rule?](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=167)  ***RIME (Algebra)*** [***A1 Algebra rules***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4212/0.html),  [***A2 Calendar patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4205/0.html),  [***A3 Rollers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4231/0.html),  [***A4 Paving patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/296/4206/0.html) | |