**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Foundation  GP 2 count on  GP 2 count on | **Represent practical situations to model addition**  **(Stepping Stones includes work with addition facts)**  *Whole class*  Lessons:  10.3, 10.4  11.1, 11.2  15.1, 15.2  16.2, 16.3, 16.4  *Small group*  10.3.1, 10.3.2, 10.4.1. 10.4.2  11.1.1, 11.1.2, 11.2,1, 11.2.2  16.1.1, 16.1.2, 16.2.1, 16.2.2, 16.3.1, 16.3.2, 16.4.1, 16.4.2 | 1.Teaching The Count – On Strategy For Addition Number facts  2. An Introduction To Teaching Addition Number Facts  3. Using Language Stages To develop Addition Concepts |  | **Fundamentals**  The Race Is On Basic Addition facts  **Flare**  Number board  Number track  Dominoes  Pan balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 1  GP 2 count on  Application to money  GP 4 adding 10  GP 4 & 5  GP 5 | **Represent and solve simple addition and subtraction problems using a range of strategies including counting on, partitioning and rearranging parts.**  Lesson:  4.5, 4.6, 4.7, 4.8  Open task  4.2  Problem solving  1.1, 2.1, 3.1, 4.2  Lesson:  6.1, 6.2, 6.3, 6.4, 6.5, 7.3, 7.4  Open task  6.3  Problem solving  5.1, 6.1, 7.1, 8.2  Lesson  9.3, 10.1, 10.2, 10.3, 10.4, 10.5  12.4, 12.5  Open task  10.2, 10.3, 11.1  Problem solving  9.1, 10.2, 11.1, 12.1  Lesson  13.5, 13.6, 13.7  14.1, 14.2, 14.3, 14.4, 14.5  15.2, 15.3  Problem Solving  13.1, 13.2, 14.1, 14.2, 15.1 | 1. Using a Hands – On approach to Develop Mental Strategies for Addition  2. Using Active Problems to Relate Addition and subtraction and Introduce Functions  3. Teaching the Count – On Strategy for Addition Number Facts  4. Teaching the Use – Doubles Strategy for Addition Number Facts  5. Teaching the Bridge – to 10 Strategy for Addition Number Facts  6. An Introduction to Teaching Addition Number Facts  7. Teaching the Think – Addition Strategy for Subtraction Number Facts  8. Using Static Problems to Relate Addition and Subtraction and Introduce Equality  9. Using Language Stages To develop Addition Concepts | Mice, Mice Everywhere  Addtron | **Fundamentals**   * Fill Five (basic addition facts) * Total ten (basic addition facts) * Add ‘em Up (basic addition facts) * Double Up (basic addition facts) * Slides and ladders (adding one – and two – digit numbers) * Dot Numbers (basic addition facts) * Dots and More (basic addition facts) * On Track (one more or one less) * Total twenty (combinations of Twenty) * Add On (basic addition facts) * Roll and Count (basic addition facts) * Count On (basic addition facts) * Fill Up Five (basic addition facts) * Over Fifty (adding two – digit numbers) * Match A total (adding two digit multiples of ten) * Make 20(combinations of twenty) * Double Fun (adding two – digit numbers) * Three Sum (three one – digit addends)   **Flare**  Number board  Number track  Numberline  Dominoes  Pan balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 2  GP 3  GP 4 /5 fact families  GP 5 doubles and near doubles  GP 4 10s facts  GP 5  GP 4 & 5  2 digit numbers | **Explore the connection between addition and subtraction**  Lessons:  1.3, 1.4, 1.5  3.1, 3.2, 3.3, 3.4, 3.5  4.4, 4.5, 4.6  7.4  10.6, 10.7, 10.8  14.1, 14.2, 14.3  **Solve simple addition and subtraction problems using a range of efficient mental and written strategies**  Lessons:  1.3, 1.5  3.1, 3.2, 3.3, 3.4, 3.5  4.4, 4.5, 4.6  Open Tasks  1.2  Problem Solving  1.1, 2.1, 3.1, 4.2  Lessons:  5.2, 5.3  6.1, 6.2, 6.3, 6.8  7.1, 7.2, 7.3, 7.4  8.2  Open Tasks  5.1,  Problem Solving  6.1, 6.2, 7.1, 8.2  Lessons:  10.1, 10.2, 10.3, 10.6, 10.7, 10.8  Problem Solving  9.1, 9.2  10.1, 11.1, 11.2, 12.1  Lessons:  13.1, 13.2, 13.3, 13.4, 13.5, 13.6  14.1, 14.2, 14.3, 14.6, 14.7, 14.8  Open tasks  16.2  Problem Solving  13.1, 13.2  14.2  **Solve Problems by using number sentences for addition or subtraction**  Lessons:  1.1, 1.2, 1.3,  4.4  6.1, 6.2, 6.3  7.4  8.2  10.1, 10.2, 10.3 | 1. Using a Hands – On approach to Develop Mental Strategies for Addition  2. Using Active Problems to Relate Addition and subtraction and Introduce Functions  3. Teaching the Count – On Strategy for Addition Number Facts  4. Teaching the Use – Doubles Strategy for Addition Number Facts  5. Teaching the Bridge – to 10 Strategy for Addition Number Facts  6. An Introduction to Teaching Addition Number Facts  7. Teaching the Think – Addition Strategy for Subtraction Number Facts  8. Using Static Problems to Relate Addition and Subtraction and Introduce Equality | Bears On Buses | **Fundamentals**   * Double Trouble (basic addition facts) * First To Forty ( adding one – and two - digit numbers * Make It True ( Basic addition facts) * Add To It ( adding two – digit multiples of ten) * Adding To 100 (adding two – digit numbers) * On Board (adding two – digit numbers) * On The Edge (adding two – digit numbers) * Back On Board (adding two – digit numbers) * Take or Add (two – digit numbers) * Split To Add (adding two – digit numbers) * Split Strategies (adding one & two digit numbers) * Splitting Fun (adding two – digit numbers)   **Flare**  Number Board  Number Track  Number Line  Dominoes  Pan Balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVels Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 3  GP 4 fact families  GP 4 adding 10  GP 6  GPs 3 ,4 & 5  GPs 5 & 6  11.3 introduction of algorithm for adding three 3 -digit numbers  GP 4 commutativity | **Recognise and explain the connection between addition and subtraction**  **Lessons:**  1.3, 1.4, 1.5, 1.6, 3.6, 4.7  5.1, 6.6, 6.7, 6.8  16.1, 16.2, 16.3  **Recall addition facts for single – digit numbers and related subtraction facts to develop increasingly efficient mental strategies for computation**  **Lessons**  1.3, 1.4, 1.5, 1.6  2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.3, 3.6, 3.7, 3.8, 4.6, 4.7, 4.8  5.1, 5.2, 6.1, 6.2, 6.3, 6.5, 6.6, 6.7, 6.8  9.4, 9.6, 9.7, 9.8  10.6, 10.7, 10.8  11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 12.5  13.6,13.7,13.8, 14.9, 16.1, 16.2, 16.3, 16.4, 16.5, 16.6  **Represent money values in multiple ways and count the change required for simple transactions to the nearest five cents.**  Lessons:  1.4, 2.2, 2.3, 10.5, 10.6, 11.2  16.4, 16.5, 16.6  **Describe, continue and create number patterns resulting from performing addition or subtraction**  Lessons:  2.1, 8.4, 13.6, 13.8 | 1. Using a Hands – On approach to Develop Mental Strategies for Addition  2. Using Active Problems to Relate Addition and subtraction and Introduce Functions  3. Teaching the Think – Addition Strategy for Subtraction Number Facts  4. Using Static Problems to Relate Addition and Subtraction and Introduce Equality |  | **Fundamentals**   1. Double and Add (adding two – digit numbers) 2. In the 90s (adding two – digit numbers) 3. Using Doubles (adding near doubles) 4. Adding Tens 9adding two – digit multiples of five and ten 5. Add the tens (adding two digit numbers) 6. Add Three (adding three single – digit addends) 7. Adding On (adding two – digit numbers) 8. Addition Fun (adding three – digit numbers)   **Flare**  Number board  Number track  Numberline  Dominoes  Pan balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 4  GP 6 numberlines  GP 6 mental strategies | **Develop efficient mental and written strategies and use appropriate digital technologies for the processes**  Lessons  1.6, 1.7, 1.8, 3.6  6.7, 6.8 , 8.5,  11.1, 11.2, 11.3, 11.4  15.2, 16.4, 16.5, 16.6, 16.7, 16.8  **Solve problems involving purchases and the calculation of change to the nearest five cents with and without digital technologies**  Lessons  6.7, 11.3, 11.4, 16.4, 16.5, 16.6, 16.7, 16.8  **Use equivalent number sentences involving addition and subtraction to find unknown quantities**  Lessons  1.8, 3.6, 3.8  6.7, 6.8, 8.5  11.1, 11.2 |  |  | **Fundamentals**   1. Make 100 (adding 1 & 2 digit numbers) 2. This or That (using multiple operations) 3. Jump On )adding 2 & 3 digit numbers) 4. Just Add (adding 3 digit numbers)   **Flare**  Number board  Number line  Pan Balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 5  GP 6  Order of operations  Decimals  Fractions | **Use efficient mental and written strategies and apply appropriate digital technologies to solve problems**  Lessons:  4.1,  8.1, 8.2  16.6, 16.7, 16.8  **Investigate strategies to solve problems involving addition and subtraction of fractions with the same denominator**  *(Stepping Stones goes beyond by including the addition & subtraction of tenths and hundredths & the addition & subtraction of common fractions with related denominators)*  Lessons:  4.2, 4.3, 4.7, 4.8  8.7, 8.8  11.4, 11.5, 11.6  14.1, 14.2, 14.3, 14.4  **Describe, continue and create patterns with fractions, decimals and whole numbers resulting from addition & subtraction**  Lessons:  2,1, 2.2  6.1, 6.6, 6.7, 6.8 |  |  | **Fundamentals**   1. First To One (addition and subtraction with decimals) 2. First To two (addition and subtraction with decimals) 3. First To Zero (addition and subtraction with decimals) 4. Operation Order (Order of operations)   **Flare**  Number board  Numberline  Pan balance |

**ADDITION SCOPE & SEQUENCE FOR AUSVELS CURRICULUM/ STEPPING STONES**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **AusVELS Level and related Growth Point** | **Stepping Stones Modules**  **linked to AusVELS content descriptions** | **Mathedology** | **Big Books** | **Slate Resources** |
| Level 6 | **Select and apply efficient mental and written strategies and appropriate digital technologies to solve problems involving all for operations with whole numbers.**  Lessons  1.6, 2.1,  8.7  13.1, 13.2, 13.3, 13.4, 13.5  16.5  **Solve problems involving addition and subtraction of fractions with the same**  **or related denominators**  *(Stepping Stones includes unrelated denominators)*  6.1, 6.2, 6.3, 6.4, 6.5  14.2, 14.3  **Add & subtract decimals with and without digital technologies and use estimation and rounding to check the reasonableness of answers**  2.2, 2.3, 2.4  8.5, 8.6, 8.8 |  |  | **Fundamentals**   1. Tricky Totals ( adding 3 digit numbers) 2. Add To Win (adding 3 digit numbers) 3. Make One ( Adding common fractions)   **Flare**  Numberboard  Numberline  Pan balance |

RICH TASKS FOR ADDITION SCOPE & SEQUENCE

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Level F | |  |  | | --- | --- | | **Sine Tasks GP 1** | **Sine Tasks GP 2** | | Potato Stamping  Match Box Counting  Add Them Up  Dice Bingo  Dot Plate Match Up | Counter Cards  Pair Up  Telephone High  Soccer Scores  Twenty Wins  Count On |  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number*** [***Add and subtract p11-12***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1513/0.html#page=11)  ***Mental computation: a strategies approach*** Module 2 Basic facts (Addition, Subtraction)*,* Developing computation p14,15 | ***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)***)*** Number partner  ***Interactive Learning*** [***Subitising***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2601/0.html),  [***Twenty-frames***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2614/0.html),  [***Add to 20***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2474/0.html),  [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html)  [Using Tens Frames to Build the Addition and Subtractions Facts to Ten](http://www.nzmaths.co.nz/resource/using-tens-frames-build-addition-and-subtraction-facts-ten?parent_node=)  [Lollies](http://www.nzmaths.co.nz/resource/lollies?parent_node=??)  [Do it with dominoes 1 Counting to Find Sums](http://illuminations.nctm.org/LessonDetail.aspx?id=U47)  [Do it with dominoes 2 Hopping on the Number Line](http://illuminations.nctm.org/LessonDetail.aspx?ID=L53)  [Do it with dominoes 3 Exploring Adding with Sets](http://illuminations.nctm.org/LessonDetail.aspx?ID=L54)  [Using Tens Frames to Build the Addition and Subtraction Facts to Ten](http://www.nzmaths.co.nz/resource/using-tens-frames-build-addition-and-subtraction-facts-ten?parent_node=) | ***Teach whole numbers for understanding*** [**13 Count all to add two collections**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=16)  ***Developmental Continuum***  [**1.0 Counting groups of up to 20 objects**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N10002P.htm)  Activity 1 Verbal counting sequence Activity 2 Efficient counting strategies Activity 3 Hidden collections  [**1.0 Making better estimates**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/wmathly/W10004P.htm)  Activity 1 How many marbles? Activity 2 Sharing strategies for checking estimates Activity 3 Estimating calculations  ***Assessment for common misunderstandings***  [**Level 1: Trusting the count**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl1.htm)[**Subitising tool - with cards sets 1 to 5**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/11subitisingtool.htm)[**Mental objects tool - with mental objects card**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/12mentalobjecttool.htm)  ***People count*** [***4 Basic addition and subtraction***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=26) |   Whole-class investigations ***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" \t "_blank))*** Adding and subtracting,  Exploring addition and subtraction  Maths 300 lessons [Around Our Neighbourhood](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=223), [Calculator Walk](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=150), [Cars in a Garage](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=259), [Chart Strategies](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=286), [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179)[Jumping Joey](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=271), [Nine and Over](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=168) **CURRICULUM AT WORK TASKS**  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Money cards  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Investigation—Our families (including a learning technology variation)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Seed search (including a learning technology variation)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Maths is all around us  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Tens Frames  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Choosing, creating and recording  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: I did it my way  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Teddy bears’ picnic  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: A walk around the playground](file:///D:\\maths\\mama011314.htm)  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Counting group things](file:///D:\\maths\\mama011316.htm) |
| Level 1  GP 2 application to money | |  |  |  | | --- | --- | --- | | **Sine Tasks GP 2** | **Sine Tasks GP 4** | **Sine Tasks GP 5** | | Counter Cards  Pair Up  Telephone High  Soccer Scores  Twenty Wins  Count On | Butterflies  Tens Frame Match Up  Draw a Game Card  Add Them up  Connect Four Again | Adding Nine  Fact Families  Chonks Visit Earth  How will you solve it?  Dice Throw |  |  |  |  | | --- | --- | --- | | Hands-on | ICT | Teaching | | **Guidelines in Number** [Add & subtract p11-12](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1513/0.html#page=11),  [Skip counting p15-18](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=1),  [Addition and two types of subtraction p20-23](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=6),  [Ordering numbers to 200 p35-36](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=32),  [Written computation p40-43](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=26),  [Numbers to 1000 p53-55](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=1),  [Place value to 1000 p57-58](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=5)  [***Mathematics Task Centre***](http://www.blackdouglas.com.au/taskcentre/iceberg.htm)4 Window Frames, 7 Consecutive Sums, 9 Row Points, 15 Domino Trails, 17 Truth Tiles 2, 30 Truth Tiles, 35 Crosses, 39 Criss-Cross Numbers, 45 Eric The Sheep, 52 Which Floor, 56 Challenge, 75 What's It Worth? 99 How Many Beans? 120 Nim, 127 Highest Number 1, 211 Soft Drink Crates, 218 Guessing Colours Game  Mental computation: a strategies approach:  Developing computation p14,15, 16, 17-24, 29-38 Module 2 Basic facts (Addition, Subtraction)  Module 4 Two-digit whole numbers  [Snake line and sewing tape](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  [MAV-money](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4391/0.html)  [Paper abacus](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4392/0.html) | **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)**)** Number trains, Number partner, Wishball  **Interactive Learning** [Adding to 20](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/206/2831/0.html), [Addition facts](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/206/2835/0.html),  ,[Backwards adding](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/207/2839/0.html)  [Adding single digits](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/206/2829/0.html),  [Skip count to 140](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/205/2813/0.html),  [Grid patterns](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2438/0.html),  [Add with diagrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/206/2823/0.html),  [Change](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2431/0.html),  [Whole number operations](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html)    [4.5 Learning about Number Relationships and Properties of Numbers Using Calculators and Hundred Boards](http://tm4u.mav.vic.edu.au/standards.nctm.org/document/eexamples/index.htm)  [4.6 Developing Estimation Strategies by Making Connections among Number, Geometry, Measurement, and Data Concept](http://tm4u.mav.vic.edu.au/standards.nctm.org/document/eexamples/index.htm)  [Do It with Dominoes](http://illuminations.nctm.org/LessonDetail.aspx?id=U47)  [Frogs on a Log: Finding One More than a Number](http://illuminations.nctm.org/LessonDetail.aspx?id=L867)  [A range of Number Activities for students:](http://www.copacabanap.schools.nsw.edu.au/Get_Smart_Pages/Get_Smart_Maths_s1_Number.html)  [Test the toad - basic addition](http://www.bbc.co.uk/schools/numbertime/games/test.shtml)  [Lesson 1 - Finding Addition Patterns](http://illuminations.nctm.org/LessonDetail.aspx?ID=L97)  [Finding Sums to Six](http://illuminations.nctm.org/LessonDetail.aspx?ID=L98)  [Balancing Act- Preparation for writing equations](http://illuminations.nctm.org/LessonDetail.aspx?id=L166)  [Sum Search](http://illuminations.nctm.org/LessonDetail.aspx?id=L58)  [Using Tens Frames to Build the Addition and Subtraction Facts to Ten](http://www.nzmaths.co.nz/resource/using-tens-frames-build-addition-and-subtraction-facts-ten?parent_node=)  [That's Odd](http://www.nzmaths.co.nz/resource/thats-odd)  [Beetle Wheels - skip counting](http://www.nzmaths.co.nz/resource/beetle-wheels)  [Take Away](http://illuminations.nctm.org/LessonDetail.aspx?id=L192)  [Comparing Connecting Cubes](http://illuminations.nctm.org/LessonDetail.aspx?id=U41)  [Lesson 1 Counting Back and Counting on](http://illuminations.nctm.org/LessonDetail.aspx?ID=L35)  [Lesson 2 Comparing Sets](http://illuminations.nctm.org/LessonDetail.aspx?ID=L36)  [Lesson 3 Using the Number Line to Compare](http://illuminations.nctm.org/LessonDetail.aspx?ID=L37)  [Lesson 4 Balancing](http://illuminations.nctm.org/LessonDetail.aspx?ID=L40)  [Lesson 5 Fact Families](http://illuminations.nctm.org/LessonDetail.aspx?ID=L41)  [Lesson 6 Comparing Connecting Cubes](http://illuminations.nctm.org/LessonDetail.aspx?ID=L43)  [Subtraction Game](http://www.nzmaths.co.nz/resource/subtraction-game-0?parent_node=)  [Subtraction Facts](http://www.nzmaths.co.nz/taxonomy/term/221)  [Five Models of Subtraction: Lesson 1 Counting Back and Counting On](http://illuminations.nctm.org/LessonDetail.aspx?ID=L103)  [Five Models of Subtraction: Lesson 2 Taking Away Sets](http://illuminations.nctm.org/LessonDetail.aspx?ID=L104)  [Five Models of Subtraction: Lesson 3 Hopping Backward on the Number Line](http://illuminations.nctm.org/LessonDetail.aspx?ID=L105)  [Finding the Balance](http://illuminations.nctm.org/LessonDetail.aspx?ID=L106)  [Finding Fact Families](http://illuminations.nctm.org/LessonDetail.aspx?ID=L107)  [Practice Makes Perfect](http://illuminations.nctm.org/LessonDetail.aspx?ID=L108)  [Looking Back and Moving Forward](http://illuminations.nctm.org/LessonDetail.aspx?ID=L109) | [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Market days Number—Mental computation and estimation](file:///D:\\maths\\mama011319.htm) [MENTAL COMPUTATION STRATEGIES: Market game](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Mental strategies](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Which strategy is most appropriate?](file:///D:\\maths\\manu020204.htm)  [MENTAL COMPUTATION STRATEGIES: Card capers](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Compatible numbers](file:///D:\\maths\\manu020206.htm)  [Maths 300 lessons](file:///D:\\maths\\mama011319.htm) [[Around Our Neighbourhood](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=223)[,](file:///D:\\maths\\mama011319.htm) [[Calculator Walk](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=150)[,](file:///D:\\maths\\mama011319.htm) [[Cars in a Garage](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=259)[,](file:///D:\\maths\\mama011319.htm) [[Chart Strategies](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=286)[, D](file:///D:\\maths\\mama011319.htm)[[omino Trails](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227)[,](file:///D:\\maths\\mama011319.htm) [[Farmyard Friends](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179)[,](file:///D:\\maths\\mama011319.htm) [[Jumping Joey](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=271)[,](file:///D:\\maths\\mama011319.htm) [[Nine and Over](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=168)[,](file:///D:\\maths\\mama011319.htm) [[Counting Machines](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304)[,](file:///D:\\maths\\mama011319.htm) [[Football Ladder](file:///D:\\maths\\mama011319.htm)](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=201) ***[Teach whole numbers for understanding](file:///D:\\maths\\mama011319.htm)*** [**[14 Count on to add from any start](file:///D:\\maths\\mama011319.htm)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=17)  ***[Developmental Continuum](file:///D:\\maths\\mama011319.htm)***  [**[1.0 Counting groups of up to 20 objects](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N10002P.htm)  [Activity 1 Verbal counting sequence Activity 2 Efficient counting strategies Activity 3 Hidden collections](file:///D:\\maths\\mama011319.htm)  [**[1.5 Counting on](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15002P.htm)  [Activity 1 Teddies in the buses Activity 2 Counters in the bag and in the hand](file:///D:\\maths\\mama011319.htm)  [**[1.5 Counting on- More About](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15002G.htm)  [**[1.5 Complements to Ten](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15compten2.htm)  [Activity 1 Make ten Activity 2 Using tens frames Activity 3 Hiding dots Activity 4 Find your partner| Activity 5 Bead frame patterns](file:///D:\\maths\\mama011319.htm)  [**[1.5 Using a hundreds chart for mental calculation](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15001P.htm)  [Activity 1 Guess my number](file:///D:\\maths\\mama011319.htm)  [Activity 2 Number neighbours Activity 3 Missing numbers Activity 4 Challenges](file:///D:\\maths\\mama011319.htm)  [**[1.75 Fact families (Addition and subtraction)](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N17501P.htm)  [Activity 1 Fact families using materials Activity 2 Domino fact families Activity 3 Dice fact families](file:///D:\\maths\\mama011319.htm)  [**[2.0 Skip counting](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N20001P.htm)  [Activity 1 Counting games](file:///D:\\maths\\mama011319.htm)[Activity 2 Whisper count](file:///D:\\maths\\mama011319.htm)[Activity 3 How far can you go?](file:///D:\\maths\\mama011319.htm)[Activity 4 Using the hundreds grid for counting](file:///D:\\maths\\mama011319.htm)  ***[Assessment for common misunderstandings](file:///D:\\maths\\mama011319.htm)***  [**[Level 1: Trusting the count](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl1.htm)[**[Subitising tool - with cards sets 1 to 5](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/11subitisingtool.htm)[**[Mental objects tool - with mental objects card](file:///D:\\maths\\mama011319.htm)**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/12mentalobjecttool.htm)  ***[People count](file:///D:\\maths\\mama011319.htm)*** [***[5 Place value, addition and subtraction](file:///D:\\maths\\mama011319.htm)***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=35) |   **Whole-class investigations**  [Maths300](http://www.maths300.esa.edu.au)  Take away of the day  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)) Adding and subtracting,  Exploring addition and subtraction  Mathematics Assessment for Learning: Rich tasks and work samples  3 Peeking dots, 5 Animal legs, 6 Family ages, 7 Adding the corners, 8 Dot cards, 9 Lucky dip,  **CURRICULUM AT WORK TASKS** Number—Computation and applying number THE FOUR PROCESSES IN CONTEXT: Gummy numbers  THE FOUR PROCESSES IN CONTEXT: Take one, take two  THE FOUR PROCESSES IN CONTEXT: Relationships between operations  THE FOUR PROCESSES IN CONTEXT: Party time  THE FOUR PROCESSES IN CONTEXT: Minibeasts  THE FOUR PROCESSES IN CONTEXT: Dominoes  THE FOUR PROCESSES IN CONTEXT: Buses and trains  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Party plans  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: In the orchard  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: City car park  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Magic bean toss](file:///D:\\maths\\manu020318.htm)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Canteen counting |
| Level 2 | |  |  |  | | --- | --- | --- | | **Sine Tasks GP 3** | **Sine Tasks GP 4** | **Sine Tasks GP 5** | | Subtraction Triplets  Connect Three  Mine Shaft Drop | Butterflies  Tens Frame Match Up  Draw a Game Card  Add Them up  Connect Four Again | Adding Nine  Fact Families  Chonks Visit Earth  How will you solve it?  Dice Throw |  |  |  |  | | --- | --- | --- | | Hands-on | **ICT** | **Teaching** | | **Guidelines in Number** [Take-away and difference p22-23](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=8), [p42-43](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=28)  [**Mathematics Task Centre**](http://www.blackdouglas.com.au/taskcentre/iceberg.htm)4 Window Frames, 7 Consecutive Sums, 9 Row Points, 15 Domino Trails, 17 Truth Tiles 2, 30 Truth Tiles, 35 Crosses, 39 Criss-Cross Numbers, 45 Eric The Sheep, 52 Which Floor, 56 Challenge, 120 Nim, 127 Highest Number 1, 211 Soft Drink Crates, 218 Guessing Colours Game  [Snake line and sewing tape](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  [MAV-money](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4391/0.html)  [Paper abacus](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4392/0.html)  **Cornerstones in Number: Place value ages 6-9 Adding and subtracting tens and hundreds (p102-112)**  **Addition and subtraction (p48-58)**  **Mental computation: a strategies approach:** Developing computation p17-24, 29-38 Module 2 Basic facts (Addition, Subtraction) Module 4 Two-digit whole numbers | **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)**)** Number partner,  Take away bars,  Difference bars  Interactive Learning [Add with diagrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2377/0.html),  [Subtract with diagrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2603/0.html),  [Subtract any from 100](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2605/0.html),  [Skip count back (140)](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2615/0.html),  [Skip count from 9999](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2573/0.html),  [Odometer](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2448/0.html),  [Subtract by adding](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2622/0.html),  [Three circles puzzle](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2630/0.html),  [Checking change](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2500/0.html),  [Change](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2431/0.html),  [Whole number operations](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html) | **Teach whole numbers for understanding** [16 Basic strategies for adding and subtracting](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=21) [17 Derived strategies for adding and subtracting](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=25)  **Continuum**  [1.5 Counting on](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15002P.htm) Activity 1 Teddies in the buses Activity 2 Counters in the bag and in the hand  [1.5 Complements to Ten part 2](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15compten2.htm) Activity 1 Make ten Activity 2 How many more to make ten Activity 3 Hidden dots Activity 4 Find your partner Activity 5 Bead frame patterns  [1.5 Using a hundreds chart for mental calculation](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N15001P.htm)Activity 1 Guess my number Activity 2 Number neighbours Activity 3 Missing numbers Activity 4 Challenges  [1.75 Fact families (Addition and subtraction)](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N17501P.htm)Activity 1 Fact families using materials Activity 2 Domino fact families Activity 3 Dice fact families  [2.0 Skip counting](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N20001P.htm) Activity 1 Counting games Activity 2 Whisper count Activity 3 How far can you go? Activity 4 Using the hundreds grid for counting  **People count** [5 Place value, addition and subtraction](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=35) |   **Whole-class investigations**  RIME 5&6  [Words add up](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291/4158/0.html)  **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)**)** Adding and subtracting Exploring addition and subtraction  **Mathematics Assessment for Learning: Rich tasks and work samples** 3 Peeking dots, 5 Animal legs, 6 Family ages, 7 Adding the corners, 8 Dot cards, 9 Lucky dip,  **Maths 300 lessons**  [Around Our Neighbourhood](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=223), [Calculator Walk](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=150), [Cars in a Garage](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=259), [Chart Strategies](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=286), [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179)  [Jumping Joey](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=271), [Nine and Over](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=168), [Counting Machines](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304), [Football Ladder](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=201)  **CURRICULUM AT WORK TASKS**  Number—Computation and applying number  THE FOUR PROCESSES IN CONTEXT: Gummy numbers  THE FOUR PROCESSES IN CONTEXT: Take one, take two  THE FOUR PROCESSES IN CONTEXT: Relationships between operations  THE FOUR PROCESSES IN CONTEXT: Party time  THE FOUR PROCESSES IN CONTEXT: Minibeasts  THE FOUR PROCESSES IN CONTEXT: Dominoes  THE FOUR PROCESSES IN CONTEXT: Buses and trains  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Party plans  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: In the orchard  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: City car park  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Magic bean toss](file:///D:\\maths\\manu020318.htm)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Canteen counting  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Market days](file:///D:\\maths\\mama011319.htm) Number—Mental computation and estimation MENTAL COMPUTATION STRATEGIES: Market game  MENTAL COMPUTATION STRATEGIES: Mental strategies  [MENTAL COMPUTATION STRATEGIES: Which strategy is most appropriate?](file:///D:\\maths\\manu020204.htm)  MENTAL COMPUTATION STRATEGIES: Card capers  [MENTAL COMPUTATION STRATEGIES: Compatible numbers](file:///D:\\maths\\manu020206.htm) [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Market days Number—Mental computation and estimation](file:///D:\\maths\\mama011319.htm) [MENTAL COMPUTATION STRATEGIES: Market game](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Mental strategies](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Which strategy is most appropriate?](file:///D:\\maths\\manu020204.htm)  [MENTAL COMPUTATION STRATEGIES: Card capers](file:///D:\\maths\\mama011319.htm)  [MENTAL COMPUTATION STRATEGIES: Compatible numbers](file:///D:\\maths\\manu020206.htm) |
| Level 3 | |  |  |  |  | | --- | --- | --- | --- | | **Sine Tasks GP 3** | **Sine Tasks GP 4** | **Sine Tasks GP 5** | **Sine Tasks GP 6** | | Subtraction Triplets  Connect Three  Mine Shaft Drop | Butterflies  Tens Frame Match Up  Draw a Game Card  Add Them up  Connect Four Again | Adding Nine  Fact Families  Chonks Visit Earth  How will you solve it?  Dice Throw | Top Table  Three Digit Throw  I Went Shopping and I Bought  Race to the Edge  Heads High, Tails Low |   **CURRICULUM AT WORK TASKS**  **Computation and applying number**  THE FOUR PROCESSES IN CONTEXT: A classroom shop  [THE FOUR PROCESSES IN CONTEXT: Alexander who used to be rich last Sunday](file:///D:\\maths\\manu030302.htm)  THE FOUR PROCESSESS IN CONTEXT: Excursion costs  [THE FOUR PROCESSESS IN CONTEXT: Sticky keys](file:///D:\\maths\\manu030304.htm)  THE FOUR PROCESSESS IN CONTEXT: Everyday situations  [THE FOUR PROCESSESS IN CONTEXT: Money discounts](file:///D:\\maths\\manu030308.htm)  THE FOUR PROCESSESS IN CONTEXT: Dice numbers  THE FOUR PROCESSES IN CONTEXT: What is the total height?  THE FOUR PROCESSES IN CONTEXT: How much will it cost?  THE FOUR PROCESSESS IN CONTEXT: Number magic (including learning technology)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Create a problem (including learning technology)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Practical situations  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: The school canteen (including a learning technology variation)](file:///D:\\maths\\manu030318.htm)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: What is your name worth?  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Storybook travel  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Toll charges  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Making deposits and withdrawals (including a learning technology variation)  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Distance signposts (including a learning technology variation)](file:///D:\\maths\\manu030326.htm)  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Travel agent (including a learning technology variation)](file:///D:\\maths\\manu030328.htm)  PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Prices at the canteen  [PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Catalogues and advertisements](file:///D:\\maths\\manu030335.htm)  PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Grocery bills  [PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Feeding the family pet](file:///D:\\maths\\manu030337.htm)  **Number—Mental computation and estimation**  MENTAL COMPUTATION STRATEGIES: Real-life problems  MENTAL COMPUTATION STRATEGIES: Addition square  [MENTAL COMPUTATION STRATEGIES: Simplifying numbers](file:///D:\\maths\\manu030212.htm)  [MENTAL COMPUTATION STRATEGIES: Compatible numbers](file:///D:\\maths\\manu030213.htm)  [ESTIMATION: Calculating dockets](file:///D:\\maths\\manu030221.htm)  [ESTIMATION: Dollars](file:///D:\\maths\\manu030222.htm)   |  |  |  | | --- | --- | --- | | Hands-on | ICT | Teaching | | [***Mathematics Task Centre***](http://www.blackdouglas.com.au/taskcentre/iceberg.htm) 4 Window Frames, 7 Consecutive Sums, 9 Row Points, 15 Domino Trails, 17 Truth Tiles 2, 30 Truth Tiles, 35 Crosses, 39 Criss-Cross Numbers, 45 Eric The Sheep, 52 Which Floor, 56 Challenge, 120 Nim, 127 Highest Number 1, 211 Soft Drink Crates, 218 Guessing Colours Game [***Snake line and sewing tape***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  [***MAV-money***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4391/0.html)  [***Paper abacus***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4392/0.html)  ***Mental computation: a strategies approach*:** Developing computation p17-24, 29-38Module 2 Basic facts (Addition, Subtraction) | ***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)***)*** Part-adder, Number partner, Take-away bars, Difference bars  ***Interactive Learning*** [***Adding to 100***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2409/0.html), [***Doubling***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2432/0.html), [***Add with diagrams***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2377/0.html), [***Subtract with diagrams***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2603/0.html), [***Subtract any from 100***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2605/0.html), [***Subtract by adding***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2622/0.html), [***Three circles puzzle***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2630/0.html), [***Checking change***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2500/0.html), [***Subtract hundreds***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2586/0.html), [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html) | ***Teach whole numbers for understanding*** [**18 Extending and applying addition and subtraction**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=29)[**19 Subtracting many-digit numbers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=30)  ***Developmental Continuum***  [**2.0 Flexible addition and subtraction**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/n20flexadd.htm)Activity 1 Choosing which order to add Activity 2 Strengthening visual images for mental computation Activity 3 Games for number fluency Activity 4 Mixing addition and subtraction  [**2.25 Renaming three-digit whole number**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22501P.htm)Activity 1 Using pop sticks to rename Activity 2 Using MAB to rename Activity 3 Using a number expander to rename  ***People count*** [***5 Place value, addition and subtraction***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=35) |   Whole-class investigations **Maths 300 lessons**  [4-Cube Houses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=250), [Counting Machines](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304), [Dice Footy](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=290), [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Dominoes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=198), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179), [Feet-uring Mathematics](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=262), [Greedy Pig](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=141), [Highest Number](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=159), [Land of ET](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=197), [Rectangle Fractions](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=209), [Rod Mats](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=274), [Row Points](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=210), [Tackling Times Tables](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=229), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Truth Tiles 2](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=297), [Win at the Fair](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=102), The Farmer's Puzzle, Eric The Sheep, Spiders and ants***,***  Number charts  ***RIME 5&6*** [***Words add up***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291/4158/0.html)  ***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)***)*** Patterns and sequences Adding and subtracting Exploring addition and subtraction  ***Mathematics Assessment for Learning: Rich tasks and work samples*** 3 Peeking dots, 5 Animal legs, 7 Adding the corners, 8 Dot cards, |
| Level 4 | **Sine Tasks GP 6**  Top Table  Three Digit Throw  I Went Shopping and I Bought …  Race to the Edge  Heads High, Tails Low  **CURRICULUM AT WORK TASKS**  **Computation and applying number**  THE FOUR PROCESSES IN CONTEXT: A classroom shop  [THE FOUR PROCESSES IN CONTEXT: Alexander who used to be rich last Sunday](file:///D:\\maths\\manu030302.htm)  THE FOUR PROCESSESS IN CONTEXT: Excursion costs  [THE FOUR PROCESSESS IN CONTEXT: Sticky keys](file:///D:\\maths\\manu030304.htm)  THE FOUR PROCESSESS IN CONTEXT: Everyday situations  [THE FOUR PROCESSESS IN CONTEXT: Money discounts](file:///D:\\maths\\manu030308.htm)  THE FOUR PROCESSESS IN CONTEXT: Dice numbers  THE FOUR PROCESSES IN CONTEXT: What is the total height?  THE FOUR PROCESSES IN CONTEXT: How much will it cost?  THE FOUR PROCESSESS IN CONTEXT: Number magic (including learning technology)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Create a problem (including learning technology)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Practical situations  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: The school canteen (including a learning technology variation)](file:///D:\\maths\\manu030318.htm)  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: What is your name worth?  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Storybook travel  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Toll charges  REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Making deposits and withdrawals (including a learning technology variation)  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Distance signposts (including a learning technology variation)](file:///D:\\maths\\manu030326.htm)  [REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Travel agent (including a learning technology variation)](file:///D:\\maths\\manu030328.htm)  PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Prices at the canteen  [PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Catalogues and advertisements](file:///D:\\maths\\manu030335.htm)  PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Grocery bills  [PRACTICAL USE OF DECIMALS, COMMON FRACTIONS AND PERCENTAGES: Feeding the family pet](file:///D:\\maths\\manu030337.htm)  **Number—Mental computation and estimation**  MENTAL COMPUTATION STRATEGIES: Real-life problems  MENTAL COMPUTATION STRATEGIES: Addition square  [MENTAL COMPUTATION STRATEGIES: Simplifying numbers](file:///D:\\maths\\manu030212.htm)  [MENTAL COMPUTATION STRATEGIES: Compatible numbers](file:///D:\\maths\\manu030213.htm)  [ESTIMATION: Calculating dockets](file:///D:\\maths\\manu030221.htm)  [ESTIMATION: Dollars](file:///D:\\maths\\manu030222.htm)     |  |  |  | | --- | --- | --- | | Hands-on | ICT | Teaching | | **Guidelines in Number** [***Add & subtract p85-87***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=34)  [**Snake line and sewing tape**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  [**MAV-money**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4391/0.html)  [**Mathematics Task Centre**](http://www.blackdouglas.com.au/taskcentre/iceberg.htm)  4 Window Frames, 7 Consecutive Sums, 9 Row Points, 15 Domino Trails, 17 Truth Tiles 2, 30 Truth Tiles, 35 Crosses, 39 Criss-Cross Numbers, 45 Eric The Sheep, 52 Which Floor, 56 Challenge, 120 Nim, 127 Highest Number 1, 211 Soft Drink Crates, 218 Guessing Colours Game | ***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)***)***  Mental calculation strategies - addition and subtraction (Collection)  ***Interactive Learning*** [***Subtract hundreds***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2586/0.html) | ***Teach whole numbers for understanding*** [**19 Subtracting many-digit numbers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=31)  ***Developmental Continuum***  [**2.25 Renaming three-digit whole numbers**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22501P.htm)  Activity 1 Using pop sticks to rename  Activity 2 Using MAB to rename  Activity 3 Using a number expander to rename  ***Mental computation: a strategies approach*: Module 4 Two-digit whole numbers**  ***Building numeracy (George Booker)*** Addition and subtraction screening tests A and B and interventions  ***People count*** [***5 Place value, addition and subtraction***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=35) |  Whole-class investigations **Maths 300 lessons**  [4-Cube Houses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=250), [Counting Machines](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304), [Dice Footy](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=290), [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Dominoes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=198), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179), [Feet-uring Mathematics](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=262), [Greedy Pig](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=141), [Highest Number](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=159), [Land of ET](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=197), Number charts, [Rectangle Fractions](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=209), [Rod Mats](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=274), R[ow Points](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=210), [Tackling Times Tables](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=229), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Truth Tiles 2](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=297), [Win at the Fair](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=102)  ***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)***)*** Patterns and sequences  Multiplying and dividing with arrays  Exploring division and multiplication |
| Level 5  GP 7 decimals and fractions | |  |  | | --- | --- | | **Sine Tasks GP 6** | **CURRICULUM AT WORK TASKS** | | Top Table  Three Digit Throw  I Went Shopping and I Bought …  Race to the Edge  Heads High, Tails Low | THE FOUR PROCESSES IN CONTEXT: Pen and paper methodsCONSTRUCT STATEMENTS OF EQUALITY: Number problemsPLACE VALUE: Project—Spend a million dollarsMENTAL COMPUTATION STRATEGIES: Efficient strategiesComputation and applying number UNITS OF WORK |  |  |  |  | | --- | --- | --- | | Hands-on | ICT | Teaching | | ***Guidelines in Number*** [***Round off and estimate p173***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1516/0.html#page=27)  ***RIME 5&6*** [***Words add up***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291/4158/0.html)  [**Numeracy games (cards or dice)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/301/4315/0.html) | ***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)***)***  Mental calculation strategies - addition and subtraction (Collection)  ***Interactive Learning*** [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html), [***10 quick questions (Whole numbers)***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/301/4346/0.html) | ***Teach whole numbers for understanding*** [**27 Distributive laws (Do it to both)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=4)[**34 Divide by one digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=11)[**35 Roun & estimate division**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=13)  ***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)***)*** School canteen  ***Building numeracy (George Booker)*** Addition and subtraction screening tests A and B and interventions  ***People count*** [***11 Place value, distributive law and multiplication***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=97)  **Working Mathematically: Investigations** 14: Sizes of the planets, Unit 17: Packaged holidays |   **Maths 300 lessons**  [4-Cube Houses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=250), [Counting Machines](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304), [Dice Footy](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=290). [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Dominoes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=198), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179), [Feet-uring Mathematics](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=262), [Greedy Pig](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=141), [Highest Number](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=159), [Land of ET](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=197), [Rectangle Fractions](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=209), [Rod Mats](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=274), [Row Points](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=210), [Tackling Times Tables](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=229), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Truth Tiles 2](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=297), [Win at the Fair](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=102), Famous Mathematicians. Fractions to decimals on a rope, What’s It Worth? |
| Level 6  GP 7 decimals and fractions | |  |  |  | | --- | --- | --- | | Hands-on | ICT | Teaching | | [**Numeracy games (cards or dice)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/301/4315/0.html) particularly Got it!  [**Integers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/307/4377/0.html) | ***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)***)*** Wishball, Decimaster, Exploring order of operations, Integer cruncher Mental calculation strategies - addition and subtraction (Collection)  ***Interactive Learning*** [***Order of operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2567/0.html), [***Biggest number***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2483/0.html), [***Missing numbers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2492/0.html),  [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html), [***10 quick questions (Whole numbers)***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/301/4346/0.html) [***Walk to add or subtract***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2642/0.html), [***Add integers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2382/0.html)  [**http://illuminations.nctm.org/Activities.aspx**](http://illuminations.nctm.org/Activities.aspx)  [**http://nlvm.usu.edu/en/nav/vlibrary.html**](http://nlvm.usu.edu/en/nav/vlibrary.html) | ***Teach whole numbers and integers for understanding*** [**27 Distributive laws (Do it to both)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=4)[**37 Models of integers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=16)  ***Developmental Continuum***  [**3.25 Order of operations**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N32505P.htm)  Activity 1: Can the answers be different? Activity 2: Do brackets help? Activity 3: Got it! Activity 4: Fewest buttons  ***Building numeracy (George Booker)*** Addition and subtraction screening tests A and B and interventions  ***People count*** [***10 Order of operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=86) [***30 Integers and subtraction***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=289) |  Whole-class investigations [***Maths300***](http://www.maths300.esa.edu.au) [4-Cube Houses](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=250), [Counting Machines](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=304), [Dice Footy](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=290), [Domino Trails](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=227), [Dominoes](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=198), [Farmyard Friends](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=179), [Feet-uring Mathematics](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=262), [Greedy Pig](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=141), [Highest Number](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=159), [Land of ET](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=197), [Rectangle Fractions](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=209), [Rod Mats](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=274), [Row Points](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=210), [Tackling Times Tables](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=229), [Truth Tiles](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=163), [Truth Tiles 2](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=297), [Win at the Fair](http://www.maths300.esa.edu.au/index.php?option=com_content&view=article&id=102), Famous Mathematicians, Fractions to decimals on a rope, What’s It Worth? Walk The Plank, Protons & Antiprotons  ***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)***)*** School canteen  **CURRICULUM AT WORK TASKS** THE FOUR PROCESSES IN CONTEXT: Pen and paper methodsCONSTRUCT STATEMENTS OF EQUALITY: Number problemsPLACE VALUE: Project—Spend a million dollarsMENTAL COMPUTATION STRATEGIES: Efficient strategiesComputation and applying number UNITS OF WORK |