**DIVISION 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  Level 1  Level 2  ***GP 1 & 2***  ***Modelling Multi & Division***  Teddy Cars &  Sharing the Teddies  STRATEGIES- Skip Count & Known Fact  GP 0  *Not yet able to create and count the total of several small groups.*  GP. 1.  **Counting group items as ones**  To find the total in a multiple group situation, refers to individual items only.  2. 2. **Modelling multiplication and division (all objects perceived)**  *Models all objects to solve multiplicative and sharing situation* | Module 16  16.1 Sharing Between two  16.2 Sharing between Groups  Module 16  **Recognise & represent division as grouping into equal sets & solve simple problems using these representations**  16.1 Using Division Language  16.2 Relating Multiplication & Division  16.5 Halving Collections  16.6 Halving Collection  16.7.Finding one half of amounts less than $1  16.8 Finding one half of amounts less than $1 | Open Tasks 16.1  Problem Solving 16.2 | “The Space Party”  “A Bear’s Share”  “Munch & Crunch” | **Flare**  Pan Balance  Number Line  *By the end of Year 1 the students will be able to model division; when all things are perceived.*  *Skip Counting & sharing*  *By the end of Grade 2 the students will be connecting multiplication & division. In Stepping Stones modelling is used; MAI Includes partial modelling in Multiplication & Division. Children should be able to apply their knowledge of halves & quarters; they should be able to use & understand the language of division such as equal parts* |

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| Level 3  ***GP 3***  ***Partial Modelling Multiplication & Division***  Unifix trays- Tennis Balls -Dot arrays  STRATEGIES- Skip Count & Known Fact  ***GP 4 Abstracting Multiplication & Division***  Biscuits on a tray- Number of legs- Children at the Movies  STRATEGIES- Repeated Addition-Skip Count & Known Fact | **Recall multiplication facts of two, three, five & ten & related division facts**  ***(Stepping Stones goes beyond & includes work with division & remainders)***  9.1 Introducing the division symbol  9.2 Relating fractions to division-Halves  9.3 Working with remainders  12.1 Working with partition division (sharing)  12.2 Working with quotition division (grouping)  12.3 Relating fractions to division( halves & quarters  12.4 Working with remainders  12.5 Solving Problems  15.1 Exploring the relationship between multiplication & Division  15.2 Using the equal groups to relate multiplication & Division  15.3 Using the array model to relate multiplication & Division  15.4 Using the array model to write related multiplication & division facts |  |  | **Fundamentals**  **Half & Half**  (1 & 2 digit dividends)  **Quick Quotients**  (Dividing by 2)  **Equal Shares**  (Dividing by 2 digit nos)  **Division Detour**  (Dividing by 2 & 4)  **Missing Divisors**  (Dividing by 2,4,5,& 10)  **Make a Choice**  (Multiply & divide by 5)  **Flare** |

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| Level 4  ***GP 5* *Multiplication Strategies***  Interpreting Multiplication - Multiplication Problems-Cost of Stickers & Stickers in a pack  STRATEGIES- Array- Number line-Groups-Known Fact- Distributive Law- Skip Count  **GP 4Basic, derived and intuitive strategies for multiplication**  *Can solve a range of multiplication problems using strategies such as commutativity, skip counting and building up from known facts* | **Recall multiplication facts up to 10 x10 & related division facts**  2.1 Working with division facts (dividing by 2)  2.2 Working with division facts (dividing by 5)  2.3 Connecting Multiplication & Division Facts  2.4 Reinforcing the link between Multiplication & Division facts  11.7 Working beyond Division Facts  **Develop efficient mental & written Strategies & use appropriate digital technologies for multiplication & for division where there is no remainder**  8.3 Connecting Multiplication & Division Facts  8.7 Connecting Multiplication & Division Facts  8.8.Reinforcing the link between Multiplication & Division Facts | By the end of Year 4 students should be able to automatically solve division problems  (Word Problems- no materials)  Year 4 Turn arounds, repeated addition, partition & quotition Division, halving |  | **Fundamentals**  **Half of that**  ( 2 & 3 Digit Dividends)  **Have a Half**  (2 & 3 Digit Dividends)  **For Division**  (2 & 3 Digit Dividends)  **Flare** |

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| Level 5  ***GP6 Division Strategies***  Interpreting Division-Division Problems- Washing Windows  STRATEGIES- Known Fact- Chunking-Distributive Law- Skip Count  GP 6. **Basic, derived and intuitive strategies for division**  *Can solve a range of division problems using strategies such as fact families and building up from known facts* | **Solve problems involving Division by a one digit number, including those that result in remainder**  ***Stepping Stones goes beyond by including dollar & cent amounts***  5.2 Partitioning two digit Numbers to divide  5.3 Using Place Value to divide ( three digit numbers)  5.4 Partitioning three digit Numbers to divide  5.5 Partitioning to divide dollar & cent amounts  12.1 Working with remainders  12.2 Using mental Strategies to make estimates (three digit numbers)  12.3 Working beyond the division facts (three & four digit numbers)  12.4 Applying tests for divisibility (two & three digit numbers)  12.5 Investigating Division Patterns  15.1 Calculating unit costs- whole dollars  15.2 Calculating unit costs- dollars & cents  15.3 Calculating unit best buys  15.4 Using patterns to explore two & three digit divisors |  |  | **Fundamentals**  Roll a Remainder x6  Roll a Remainder x7  Roll a Remainder x8  Factor Find (finding 1 digit factor)  Fun Factors (Working factors & multiples)  Doing Division (Divide 2 digit Numbers)  Divide ‘n Conquer (Divide 3 digit Numbers)  Go Divide (Divide 3 digit Numbers)  Remainder Run (2 digit dividends)  This I know (Division Facts & Beyond)  Operation Order( Order of Operations)  **Flare**  Pan Balance  Number line |

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| Level 6  ***GP 7& 8 Extending & Applying Multiplication & Division:***  Off to the Circus-Stamp Collection –Trees in an Orchard- Sharing Pizza-Relay- Half as Many  STRATEGIES: Chunking-Distributive Law-Doubling & Halving  GP 8. **Extending and applying multiplication and division**  *Can solve a range of multiplication and division problems (including multi-digit numbers) in practical contexts.* | **Select & apply efficient mental & written strategies & appropriate digital technologies to solve problems involving all four operations with whole numbers**  8.1 Extending Division Facts -Partitioning whole numbers (three & four digit numbers)  8.3 Using factors to divide by two digit numbers  8.4 Using Factors to divide multiples of ten  12.1 Calculating Rate-kilometres per hour  12.2 Calculating Rate-payment plans  12.3 Dealing with amounts left over    **Multiply & Divide Decimals by powers of 10**  9.4 Multiplying & Dividing by 10, 100 & 1000  11.6 Converting between units of length- Millimetres, centimetres & metres  11.7 Converting units of length 11.8 Working with units of length  13.8 Converting units of measurement  **Multiply decimals by whole numbers & perform divisions that result in terminating decimals, with & without digital technologies**  8.2 Partitioning to divide dollar & cent amounts  8.8 Applying mathematics in everyday situations- planning holidays  12.3 Dealing with amounts left over  12.4 Solving Division Problems involving Dollars & Cents  12.5 Calculating rate- cost per minute  13.5 Working with units of Mass | *By the end of Year 6 students can solve a range of Division problems in Practical Context e.g. worded problems*  *In Stepping Stones there are opportunities for students to read, interpret & solve worded division problems including multi-digit numbers.*  *In Year 6, students are expected to solve division equations in practical context e.g. open ended problems* |  | **Fundamentals**  Divide It  (3 Digit Dividends)  Division Dash  (3 Digit Dividends)  Does It Divide  (Use Rule of Divisibility)  Remainder Race  (2 Digit Dividends)  Percentage Play  (3 Digit Numbers)  Fast Factors  ( Factoring 3 Digit Numbers)  Percentage Fun  (3 Digit Numbers)  **Flare**  Pan Balance  Number line |

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| Level F | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 0**  **Unifix Sharing** | **Sine Tasks GP 1** | |  |  |   **CURRICULUM AT WORK TASKS**   |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number*** [Beginning multiplication and division p13](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1513/0.html" \l "page=13" \t "_blank)  ***[Snake line and sewing tape](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html" \t "_blank)***  ***Practical teaching strategies for children with learning difficulties*** Book 4 (numbers to 20)  ***Mental computation: a strategies approach*:** Developing computation p17-24, 29-38 | ***Learning Objects ([FUSE](https://fuse.education.vic.gov.au/pages/Teacher.aspx" \t "_blank) or [Scootle](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3" \t "_blank))*** Count and compare, Number trains  **Spreadsheets from *The Interactive Learning CD* in Number** [Doubling](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2432/0.html" \t "_blank), [Groups of (small)](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2444/0.html" \t "_blank), [Dividing](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2435/0.html" \t "_blank), [Finding half](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2418/0.html" \t "_blank)  **[Seeing Doubles](http://illuminations.nctm.org/LessonDetail.aspx?id=L875" \t "_blank)**  **[Smart Doubling](http://www.nzmaths.co.nz/resource/smart-doubling?parent_node=" \t "_blank)**  **[Marbles](http://www.nzmaths.co.nz/resource/marbles?parent_node=" \t "_blank)**  **[Dividing Dough](http://www.nzmaths.co.nz/resource/dividing-dough" \t "_blank)**  **[Bab](http://illuminations.nctm.org/LessonDetail.aspx?id=L170" \t "_blank)** | ***Teach whole numbers for understanding* [20 Count all in groups](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html" \l "page=33" \t "_blank)** **[21 Model division (hands-on)](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html" \l "page=46" \t "_blank)**  ***Continuum***  **[1.0 Counting groups of up to 20 objects](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N10002P.htm" \t "_blank)** Activity 1 Verbal counting sequence Activity 2 Efficient counting strategies Activity 3 Hidden collections  **Assessment for Common Misunderstandings**  **[Level 3: Multiplicative thinking](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm" \t "_blank)**  ***People count*** [6 Basic multiplication](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html" \l "page=43" \t "_blank) |  Whole-class investigation **MICHAEL YMER TASKS**  **RICH TASK: *Chicken feed & Chicken scramble***  **Year Level P - 2**  **MATHEMATICS INVOLVED:**  **Counting, I:1, graphing, making collections, sharing**  ***Ann Downton’s Division Tasks***  **Task 1**: Mum made 12 biscuits. She put them on a tray in rows with the same number of cookies in each row. How did the cookies look on the tray?  Draw a picture to show the cookies on the tray.  **Task 2**: I made a tower of 8 blocks, two of each colour.  How many different colours did I have? |
| Level 1 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 1** | **Sine Tasks GP 2** | | **Grouped by** … | **Party Time** |   **CURRICULUM AT WORK TASKS** REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Choosing, creating and recording, CREATE, MODEL AND SOLVE PROBLEMS: I did it my wayREPRESENT REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Teddy bears’ picnicREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: A bag full of pups  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number***  [***Basic multiplication & division p13***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1517/0.html#page=13) | ***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)***)***The multiplier, Pobble array, Arrays  ***Interactive Learning***  [***Array count***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2422/0.html),  [***Tables***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2646/0.html),  [***Multiplication facts***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2518/0.html) | ***Teach whole numbers for understanding***  [***21 Model multiplication and division (hands-on)***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=34)  ***Assessment for Common Misunderstandings***  [**Level 3: Multiplicative thinking**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm)  ***People count***  [***6 Basic multiplication***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=43) |  Whole-class investigations[*Maths300*](http://www.maths300.esa.edu.au/) Spiders and ants,  17 Eric The Sheep,  97 Tackling Times Tables**,**  51 Hunting for stars   |  |  | | --- | --- | | **MICHAEL YMER TASKS** | **Ann Downton’s Division Tasks** | | **RICH TASK: *Apple Tree***  **GRADE LEVEL SUITABILITY: Year 1/2/3**  **MATHEMATICS INVOLVED:**  Introducing division possibly with fractional remainders  **RICH TASK: *Chicken feed & Chicken scramble***  **Year Level P - 2**  **MATHEMATICS INVOLVED:**  **Counting, I:1, graphing, making collections, sharing** | Task 1: I have 18 pencils. They are packed in boxes with the same number in each box.  How many boxes do I have? How many pencils in each box?  Task 2: I cooked 20 muffins in a muffin tray. I put 4 muffins in each row, of the tray. How many rows of muffins are on the tray? | |
| Level 2 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 1** | **Sine Tasks GP 2** | | **Grouped by….** | **Party Time** |   **CURRICULUM AT WORK TASKS** THE FOUR PROCESSES IN CONTEXT: The doorbell rangREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: City car parkREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: City car park  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number***  [***Basic multiplication & division p13***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1517/0.html#page=13)  [***Two meanings for division p25-28***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=22)  [***More on division p45-46***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=31)  [***Even more division p66***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=14)  [***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  ***Practical teaching strategies for children with learning difficulties***  Book 5 (numbers to 100)  ***Mental computation: a strategies approach***  Developing computation p17-24, 29-38Module 3 Basic facts (Multiplication, Division) | ***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)***)***The multiplier, Pebble array, Arrays  ***Interactive Learning***  [***Array count***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2422/0.html),  [***Tables***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2646/0.html),  [***Multiplication facts***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2518/0.html),  [***Missing numbers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2492/0.html),  [***Multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2412/0.html),  [***Number line multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2491/0.html),  [***Multo Random***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2458/0.html),  [***Multiple patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2405/0.html),  ***[Whole number operations](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/4585/0.html)***  ***[Divide or multiply](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/4585/0.html)***  [***How many columns?***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/4587/0.html)  [***How many rows?***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/4586/0.html) | ***Teach whole numbers for understanding***  [***21 Model multiplication and division (hands-on)***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=34)  ***Continuum***  [**2.25 Early division ideas**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22502P.htm)  Activity 1 Modelling quotition  Activity 2 A first look at remainders  Activity 3 Number line and repeated subtraction  [**2.75 Better multiplication strategies**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27502P.htm)  Activity 1 How many chocolates?  Activity 2 Partially covered arrays  [**2.75 Fact families for multiplication and division**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27501P.htm)  Activity 1 fact families from arrays  Activity 2 Recognising different fact families  Activity 3 Fact family fortune  Activity 4 fact family bonanza  ***Assessment for Common Misunderstandings***  [**Level 3: Multiplicative thinking**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm)  ***People count***  [***6 Basic multiplication***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=43)  [***7 Basic division***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=53) | | Whole-class investigations | **MICHAEL YMER TASK** | **Ann Downton’s Division Tasks** | | [***Maths300***](http://www.maths300.esa.edu.au/)  Spiders and ants,  17 Eric The Sheep,  97 Tackling Times Tables**,**  51 Hunting for stars | **RICH TASK*: Apple Tree***  **GRADE LEVEL SUITABILITY: Year 1/2/3**  **MATHEMATICS INVOLVED:**  Introducing division possibly with fractional remainders  **RICH TASK: *Chicken feed & Chicken scramble***  **Year Level P - 2**  **MATHEMATICS INVOLVED:**  **Counting, I:1, graphing, making collections, sharing** | Task 1: There are 20 children in the class. Four children sit at each table.  How many tables are there?  Task 2: Twenty‐ four pears are packed into the fruit box in 4 equal rows.  How many pears are in each row? | |
| Level 3 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 2** | **Sine Tasks GP 3** | | **Party Time** |  |   **CURRICULUM AT WORK TASKS** REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Anyone for tennis?REPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Division dilemmas  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number***  [**Early multiplying p24**](http://tm4u.mav.vic.edu.au/component/jdownloads/view.download/157/1511.html#page=10)  [**More on multiplying 44**](http://tm4u.mav.vic.edu.au/component/jdownloads/view.download/157/1511.html#page=30)  [**Still more multiplying 65**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=13)  [**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  [**Snake lines and sewing tape**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  ***Practical teaching strategies for children with learning difficulties***  Book 5 (numbers to 100)  ***Mental computation: a strategies approach***  Developing computation p17-24, 29-38Module 3 Basic facts (Multiplication, Division)  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)***)***  The multiplier, Pebble arrays, Arrays  ***Interactive Learning***  [***Array count***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2422/0.html),  [***Array Multiply***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2511/0.html),  [***Tables***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2646/0.html),  [***Multiplication facts***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2518/0.html),  [***Missing numbers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2492/0.html),  [***Multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2412/0.html),  [***Number line multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2491/0.html),  [***Multo Random***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2458/0.html),  [***Multiple patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2405/0.html),  [***Multiply by 1 or 2 digits***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2495/0.html),  [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html) | ***Teach whole numbers for understanding***  [**22 Abstracting multiplication and division**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=38)  [**23 Basic, derived and intuitive strategies for multiplication  (such as commutativity, skip counting and building up from known facts)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4497/0.html#page=31)  ***Continuum***  [**2.25 Early division ideas**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22502P.htm)Activity 1 Modelling quotition Activity 2 A first look at remainders Activity 3 Number line and repeated subtraction  [**2.75 Better multiplication strategies**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27502P.htm)Activity 1 How many chocolates? Activity 2 Partially covered arrays  [**2.75 Fact families for multiplication and division**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27501P.htm)Activity 1 fact families from arrays Activity 2 Recognising different fact families Activity 3 Fact family fortune Activity 4 fact family bonanza  ***Assessment for common misunderstandings***  [***Level 3: Multiplicative thinking***](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm)  ***People count***  [***6 Basic multiplication***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=43) |   Whole-class investigations [***Maths300***](http://www.maths300.esa.edu.au/)Cookie count, Tables for 25  ***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)***)***Multiplying and dividing with arrays  [***Maths300***](http://www.maths300.esa.edu.au/)  17 Eric The Sheep,  97 Tackling Times Tables  ***RIME 5&6*** [***Times 11***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291=4170/0.html)   |  |  | | --- | --- | | **MICHAEL YMER TASKS** | **Ann Downton’s Division Tasks** | | **RICH TASK: Apple Tree**  **GRADE LEVEL SUITABILITY: Year 1/2/3**  **MATHEMATICS INVOLVED:**  Introducing division possibly with fractional remainders  **RICH TASK: Land Grab**  **MATHEMATICS INVOLVED:** Multiplication, area  **GRADE LEVEL SUITABILITY: Year 3/4/5/** | Task 1: Tara has 24 tennis balls to pack into cylinders. Each cylinder holds 2 balls.  How many cylinders will she need?  Task 2: I bought 48 strawberry plants to want to plant in equal rows.  What suggestions can you give me? | |
| Level 4 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 3** | **Sine Tasks GP 4** | |  |  |   **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)   |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number***  [***Early mult and divide p13***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1517/0.html#page=13)  [***Mult and divide to 100 p24-28***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=21)  [***Mult and divide to 200 p44-46***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1511/0.html#page=30)  [***Mult and divide to 1000 p65-66***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html#page=24)  [***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  [***Multiply and divide with Base ten blocks***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4395/0.html)  [***Snake lines and sewing tape***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.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)***)***  The multiplier, Pebble array, Arrays, The divider, Divide it up, School canteen  Mental calculation strategies - multiplication and division (Collection)  ***Interactive Learning***  [***Array count***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2422/0.html), [***Array Multiply***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2511/0.html), [***Tables***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2646/0.html), [***Multiplication facts***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2518/0.html), [***Missing numbers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2492/0.html), [***Multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2412/0.html),  [***Number line multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2491/0.html), [***Multo Random***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2458/0.html), [***Multiple patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2405/0.html),  [***Whole number operations***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2587/0.html), [***Multiply by 1 or 2 digits***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2495/0.html)  [***Dividing up to 100***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2378/0.html), [***Division facts***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2393/0.html), [***10 or 100 times what?***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2493/0.html), [***Backwards multiplying***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2484/0.html),  [***Common factor***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2410/0.html), [***Divide by 1 or 2 digits***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2496/0.html), [***Division in pictures***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2505/0.html), [***Energy use***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2453/0.html) | **TEACHING**  ***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)  [**28 Round & estimate for single-digit multiplication**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=5)  [**30 Multiply any number by a single digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=7)  [**34 Divide by one digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=11)  ***Continuum***  [**2.25 Early division ideas**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22502P.htm)  Activity 1 Modelling quotition  Activity 2 A first look at remainders  Activity 3 Number line and repeated subtraction  [**2.75 Better multiplication strategies**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27502P.htm)  Activity 1 How many chocolates?  Activity 2 Partially covered arrays  [**2.75 Fact families for multiplication and division**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27501P.htm)  Activity 1 fact families from arrays  Activity 2 Recognising different fact families  Activity 3 Fact family fortune Activity 4 fact family bonanza  ***Assessment for common misunderstandings***  [**Level 3: Multiplicative thinking**](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm)  ***Mental computation: a strategies approach*:**  Developing computation p17-24, 29-38Module 3 Basic facts (Multiplication, Division) Module 4 Two-digit whole numbers  ***Building numeracy (George Booker)***  Multiplication and division screening tests A and B and related interventions  ***People count***  [***6 Basic multiplication***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=43)  [***7 Basic division***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=53)  ***Practical teaching strategies for children with learning difficulties***  Book 5 (numbers to 100) |    Whole-class investigations [***Maths300***](http://www.maths300.esa.edu.au/)  17 Eric The Sheep, 97 Tackling Times Tables, 51 Hunting for stars  ***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  ***RIME 5&6*** [***Times 11***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291=4170/0.html)   |  |  | | --- | --- | | **MICHAEL YMER TASKS** | **Ann Downton’s Division Tasks** | | **RICH TASK: Land Grab**  **MATHEMATICS INVOLVED:** Multiplication, area  **GRADE LEVEL SUITABILITY: Year 3/4/5/6**  **RICH TASK:** Loop cards (‘I am’ cards)  **MATHEMATICS INVOLVED:** Multiplication, subtraction, division, addition, fractions, powers, halving, doubling, more than, less than, percentage, decimals.  **GRADE LEVEL SUITABILITY: Year 3/4/5/6** | Task 1: I had 72 muffins to cook. I put 8 muffins in each row of the tray.  How many rows of muffins on the tray?  Task 2: I counted 56 spiders’ legs under some rocks. Each spider has 8 legs. How many spiders did I see? | |
| Level 5 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP** | **Sine Tasks GP** | |  |  |   **CURRICULUM AT WORK TASKS** THE FOUR PROCESSES IN CONTEXT: Parking lotTHE FOUR PROCESSES IN CONTEXT: Ticket takingsREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: AirportREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Exploring with calculatorsREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Exploring with calculators  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number*** [Divide p66](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html" \l "page=14" \t "_blank) [Multiply p87-88](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html" \l "page=35" \t "_blank) [Round and estimate p93-94](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1514/0.html" \l "page=41" \t "_blank) [Number facts p123](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1516/0.html" \l "page=21" \t "_blank)   [Division p134-137](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1516/0.html" \l "page=32" \t "_blank) [Division p180](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1512/0.html" \l "page=34" \t "_blank)  ***Active Learning (Number & Algebra)***  [N2 Building the greatest](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=18) [N4 Number facts through card games](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=20) [N5 Patterns in the multiplication table](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=21) [N6 Sticky numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=22) [N7 Mirror products](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=23) [N8 Sequences](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=24) [N9 Remainder game](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=25) [N11 Checkmath](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=27) [N12 Divisibility](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=29) [N13 Card games for factors](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=30) [N15 Factorgrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=32)  ***Active Learning 2 (Number and Algebra)*** [N3 Multiply and divide](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/138/1390/0.html#page=39) [N12 Remainders](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/138/1390/0.html#page=50)  [**Multiply & divide whole numbers with base 10 blocks**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4395/0.html)  [**MAV-money (WN)**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4391/0.html)  [**Snake line and sewing tape**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/313/4394/0.html)  **[Numeracy games (cards or dice)](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/301/4315/0.html" \t "_blank)** | ***Learning Objects ([FUSE](https://fuse.education.vic.gov.au/pages/Teacher.aspx" \t "_blank) or [Scootle](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3" \t "_blank))*** Financial maths - purchasing and pricing (Collection) Comparative pricing using calculations and linear graphs (Collection)  ***Interactive Learning*** *Multiply or divide* [One digit multiply](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2477/0.html), [Single digit multiply](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2629/0.html), [Tables](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2646/0.html), [Multiplication facts](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2518/0.html), [Multiplying](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2412/0.html),  [Number line multiplying](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2491/0.html), [MultoRandom](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2458/0.html),  [Multiply with powers of 10](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2396/0.html), [Divide with powers of 10](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2465/0.html),  [Powers of ten (x)](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2565/0.html),   [Single digit divide](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2593/0.html), [Guzintas](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2413/0.html), [Division in a table](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2451/0.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)*Distributive law and two digit multiplication* [Distributive laws](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2468/0.html), [Distributive multiply](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2402/0.html), [Distributive divide](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2440/0.html),   [Two digit multiply](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2621/0.html), [Multiplication in a table](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2397/0.html).*Multiples or factors* [Multiple patterns](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2405/0.html), [Multiples](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2517/0.html), [Suzie's shells](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2624/0.html), [Biorhythms](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2450/0.html), [Left-overs](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2398/0.html),  [Aliquot](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2478/0.html), [Lockers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2487/0.html), [Number of divisors](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2429/0.html), [Common factor](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2414/0.html)  [**standards.nctm.org/document/eexamples/index.htm**](http://tm4u.mav.vic.edu.au/standards.nctm.org/document/eexamples/index.htm)  6.1 Learning about Multiplication Using Dynamic Sketches of an Area Model  **[http://illuminations.nctm.org/Activities.aspx](http://illuminations.nctm.org/Activities.aspx" \t "_blank)** Product game, Factor game, Factorize | ***Teach whole numbers for understanding*** [**28 Round & estimate for single-digit multiplication**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=5)[**29 Multiply a multiple of 10 by a single digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=6)[**30 Multiply any number by a single digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=7)[**31 Multiply by 10, 20, 30 etc**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=8)[**32 Multiply any two 2-digit number**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=9)[**33 Round & estimate for two-digit multiplication**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=10)[**34 Divide by one digit**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=11)[**35 Round & estimate division**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=13)[**40 Multiples**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=19)[**41 Common multiples and LCM**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=20)[**42 Factors**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=21)[**43 Common factors and HCF**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=22)  ***Continuum***  **[2.25 Early division ideas](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N22502P.htm" \t "_blank)**  Activity 1: Modelling quotition Activity 2: A first look at remainders Activity 3: Number line and repeated subtraction  **[2.75 Better multiplication strategies](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N27502P.htm" \t "_blank)**  Activity 1: How many chocolates? Activity 2: Partially covered arrays  **[2.75 Properties of operations](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/structure/st275ip.htm" \t "_blank)**  Activity 1: Demonstrating and using the distributive property Activity 2: Mental computation example Activity 3: Properties that don't work Activity 4: Distributive property used with subtraction  **[3.0 Recall of multiplication facts](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N30006P.htm" \t "_blank)**  Activity 1: Set realistic goals Activity 2: Stress number patterns and properties Activity 3: Enlist help of parents Activity 4: Strengthen students' metacognition Activity 5: Use games with a chance element  **[3.75 Identifying factors and multiplication](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N37501P.htm" \t "_blank)**  Activity 1: Making rectangles Activity 2: What goers in? Activity 3: Factor grab game Activity 4: What else goes in? Activity 5: Shuffling factors Activity 6: Today's number is â€¦  **[4.0 Partial products in multiplication](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/mathscontinuum/number/N40002P.htm" \t "_blank)**  Activity 1: Multiplication of whole numbers showing partial products Activity 2: Multiplication of whole numbers using lattice multiplication  ***Assessment for Common Misunderstandings:* [Level 2 Place value](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl2.htm" \t "_blank) [Level 3 Multiplicative thinking](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/common/commisslvl3.htm" \t "_blank)**  ***Scaffolding Numeracy in the Middle Years:***  **[LAF Zone 3 Sensing,](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/snmy/learnplans.htm" \t "_blank)  [LAF Zone 4 Strategy exploring,](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/snmy/learnplans.htm" \t "_blank)  [LAF Zone 5 Strategy refining](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/snmy/learnplans.htm" \t "_blank) [LAF Zone 6 Strategy extending](http://www.education.vic.gov.au/studentlearning/teachingresources/maths/snmy/learnplans.htm" \t "_blank)**  ***Building numeracy (George Booker)*** Multiplication and division screening tests A and B and related interventions  ***People count*** [5 Place value, addition and subtraction](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=35) [8 Tables, multiples, factors and prime numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=62)  [9 Multiplication by powers of 10](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=75)  [10 Order of operations and the distributive laws](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=86)  [11 Place value, distributive law and multiplication](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=97)  [12 Place value, distributive law and division](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#Page=107) |   Whole-class investigations ***Mathematics Assessment for Learning: Rich tasks and work samples*** 12 Sharing 25,  13 Helping Bert divide  ***Building numeracy (Booker)***  Divison tests A and B and related interventions  [Maths300](http://www.maths300.esa.edu.au" \t "_blank)  Division boxes   12 Gauss Beats The Teacher, 14 The Farmer's Puzzle, 30 Truth Tiles,  52 Multo, 66 Dominoes, 78 Row Points, 84 Number Charts,  99 What's It Worth? 101 Odds & Evens, 62 4&20 Blackbirds, 71 Eureka  ***RIME 5&6***  [Times 11](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291/4170/0.html" \t "_blank)  ***RIME (Number)***  [*N3 Times 99*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4356/0.html)*,* [*N4 Odds and evens*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4239/0.html)*,* [*N5 Readability*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4357/0.html)*,* [*N6 Smorgasbord*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4351/0.html)*,* [*N7 Checkmath*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4350/0.html)*,* [*N8 Line up*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298=4260/0.html)*,* [*N10 Factorgrams*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4264/0.html)*,* [*N12 Circle patterns*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4280/0.html)*,* [*N15 Happy numbers*](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4267/0.html)  [2 Estimating multiplication](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4265/0.html" \t "_blank), [3 Times 99](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4356/0.html" \t "_blank), [4 Odds and evens](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4239/0.html" \t "_blank), [5 Readability](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4357/0.html" \t "_blank), [6 Smorgasbord](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4351/0.html" \t "_blank), [7 Checkmath](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4350/0.html" \t "_blank), [8 Line up](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4260/0.html" \t "_blank), [10 Factorgrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4264/0.html" \t "_blank), [14 Add the numbers 1 to 100](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4247/0.html" \t "_blank), [15 Circle patterns](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4280/0.html" \t "_blank),  [18 Happy numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4267/0.html" \t "_blank)  ***Units of work ([FUSE](https://fuse.education.vic.gov.au/pages/Teacher.aspx" \t "_blank) or [Scootle](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3" \t "_blank))*** School canteen Multiplying and dividing with arrays     |  |  | | --- | --- | | **MICHAEL YMER TASKS** | ***Ann Downton’s Division Tasks*** | | **RICH TASK: Land Grab**  **MATHEMATICS INVOLVED:** Multiplication, area  **GRADE LEVEL SUITABILITY: Year 3/4/5/6**  **RICH TASK:** Loop cards (‘I am’ cards)  **MATHEMATICS INVOLVED:** Multiplication, subtraction, division, addition, fractions, powers, halving, doubling, more than, less than, percentage, decimals.  **GRADE LEVEL SUITABILITY: Year 3/4/5/6** | Task 1: Kate has 306 boxes to move. She can carry 9 at a time. How many trips does she need to make?  Task 2: The water cooler holds 48 litres of water. Sam’s water bottle holds 3 litres of water. How many times as many litres does the water cooler hold? | |
| Level 6 | **DIVISION**   |  |  | | --- | --- | | **Sine Tasks GP 5** | **Sine Tasks GP 6** | |  |  |   **CURRICULUM AT WORK TASKS** THE FOUR PROCESSES IN CONTEXT: Parking lotTHE FOUR PROCESSES IN CONTEXT: Ticket takingsREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: AirportREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Exploring with calculatorsREPRESENT, CREATE, MODEL AND SOLVE PROBLEMS: Exploring with calculatorsEXPLORE SPATIAL AND NUMERICAL PATTERNS: Patterns in multiplication and divisionRECOGNISE, CREATE AND DESCRIBE NUMBER PATTERNS: Division theories  |  |  |  | | --- | --- | --- | | Hands-on | ICT | **Teaching** | | ***Guidelines in Number*** [Operations: p168-187](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1512/0.html#page=22) [Problem solving: p188-191](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/157/1512/0.html#page=42)  ***Active Learning (Number & Algebra)*** [N14 Investigating primes](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=31) [N15 Factorgram diagrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/123/1089/0.html#page=32)  ***Active Learning 2 (Number & Algebra)*** [A8 Using triangle numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/138/1392/0.html#page=22) | ***Learning Objects ([FUSE](https://fuse.education.vic.gov.au/pages/Teacher.aspx" \t "_blank) or [Scootle](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3" \t "_blank))*** Sieve of Eratosthanes  Mental calculation strategies - multiplication and division (Collection) Comparative pricing using calculations and linear graphs (Collection)  ***Interactive Learning*** [Prime spiral](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2575/0.html), [Primed spiral](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2636/0.html), [Prime sieve](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2639/0.html" \t "_blank) [Square numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2616/0.html), [Sums of squares of digits](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2568/0.html), [Triangle numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/211/2868/0.html" \t "_blank) [Factor tree](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2443/0.html), [Prime factors](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2627/0.html), [Factorgrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/187/2457/0.html) | ***Teach whole numbers for understanding*** [**44 Prime and composite numbers**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=23)[**45 Prime factors**](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/306/4500/0.html#page=24)  ***Building numeracy (George Booker)*** Multiplication and division screening tests A and B and related interventions  ***People count*** [8 Tables, multiples, factors and prime numbers](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3838/0.html#page=62) [83 Number patterns](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/275/3541/0.html#page=11) |   Whole-class investigations ***Mathematics Assessment for Learning: Rich tasks and work samples***  12 Sharing 25,  13 Helping Bert divide  ***Building numeracy (Booker)*** Divison tests A & B and related interventions  [***Maths300***](http://www.maths300.esa.edu.au/)  Division boxes  ***RIME 5&6***  [***Times 11***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/291/4170/0.html)  ***RIME (Number)***  [***N3 Times 99***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4356/0.html),  [***N4 Odds & evens***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4239/0.html), [***N5 Readability***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4357/0.html),  [***N6 Smorgasbord***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4351/0.html), [***N7 Checkmath***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4350/0.html),  [***N8 Line up***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298=4260/0.html),  [***N10 Factorgrams***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4264/0.html), [***N12 Circle patterns***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4280/0.html), [***N15 Happy numbers***](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4267/0.html)  **Whole-class investigations**  [Maths300](http://www.maths300.esa.edu.au" \t "_blank)  52 Multo, 56 Simple, Elegant, Elusive  ***RIME (Number)*** [7 Checkmath](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4350/0.html), [9 Liquorice Factory](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4268/0.html), [10 Factorgrams](http://tm4u.mav.vic.edu.au/component/jdownloads/finish/298/4264/0.html)  ***Units of work ([FUSE](https://fuse.education.vic.gov.au/pages/Teacher.aspx" \t "_blank) or [Scootle](http://www.scootle.edu.au/ec/curriculum?learningarea=%22Mathematics%22&menu=3" \t "_blank))*** School canteen   |  |  | | --- | --- | | **MICHAEL YMER TASKS** | ***Ann Downton’s Division Tasks*** | | **RICH TASK: Land Grab**  **MATHEMATICS INVOLVED:** Multiplication, area  **GRADE LEVEL SUITABILITY: Year 3/4/5/6**  **RICH TASK:** Loop cards (‘I am’ cards)  **MATHEMATICS INVOLVED:** Multiplication, subtraction, division, addition, fractions, powers, halving, doubling, more than, less than, percentage, decimals.  **GRADE LEVEL SUITABILITY: Year 3/4/5/6** | **Task 1:**One hundred and twenty‐eight apples are packed equally into 6 crates. How many are packed into each crate?  **Task 2**: A sheet of 168 stickers has 21 stickers in each row. How many rows of stickers are there? | |

RICH TASKS FOR DIVISION SCOPE & SEQUENCE