

TRIAL MATERIAL WORK IN PROGRESS

Differentiated plans for Years 3 & 4 for Whole numbers

Ian Lowe, MAV Professional Officer, 2007

IF YOU USE ANY OF THIS
PLEASE PROVIDE FEEDBACK TO IAN AT

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THIS WILL QUALIFY YOU
FOR AN IMPROVED VERSION
WHEN AVAILABLE

Materials are recommendations only; suitable substitutions may be made.

MAV materials may be bought from www.mav.vic.edu.au/shop

Download the Curriculum Corporation catalogue from

http://www.curriculum.edu.au/catalogue/downloads/pc2007_pages39-54.pdf

and look at pages 48 and 49.

For Learning Federation materials (Learning Objects),
check out 'Digital Learning Resources' on your laptop, or download them from the new education website
www.education.vic.gov.au/studentlearning/teachingresources/elearning/digilearn.htm

Differentiated plans for Years 3 & 4

Whole numbers

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This set of units – one per semester for Years 3 & 4 – matches the specifications for VELs, but recognises that there will be a wide spread of achievement in each class. So children are differentiated into working groups by need, for some of the time only. There may be more than one group at any Standard, or some Standards may need to be combined. Plan a stimulating set of activities for homework review, such as Interactive Learning spreadsheets.

It also balances the *toolbox* requirements – concepts and skills – with the need to learn to apply those tools in *problem solving* situations. Hence there are whole class lessons (often from Maths300 or RIME) punctuating the toolbox development, at regular intervals. These are on the same topic, but do not attempt to mesh with the work done by each 'standard' group. They ensure that *Working Mathematically* is always part of the learning process, integrated into each dimension.

The mix of activities will provide a stimulating and rich learning environment, with students learning from and helping one another. Connections between topics will be made and reinforced, and the variety of learning styles will accommodate learners with different needs.

How does it work?

In Years 3 and 4 it is assumed that children will be working anywhere from Standard 2 to Standard 4.

At regular intervals whole class lessons are taught to 'mixed ability' groups. Between these are cycles of a fixed pattern of lessons. In Years 3 and 4, the cycle has three parts: teaching, worksheet or games, computer use.

On any day all are taking place in the same classroom, so only a fraction of the resources are needed. But the cycle also works for the students: they follow the pattern – teaching, worksheet, (problem solving) and computer. As a consequence, teaching is to a different group each day in a regular pattern. Teaching will be for a concentrated 20 minutes or so, and then the teacher will supervise the rest of the class. Instructions on the board will inform the other groups of what they are to do. Encourage students to help each other.

What resources are needed?

Access to 4 or 5 computers daily is expected. Computer pods or laptop trolleys might be the best solution. Membership of Maths300 is a requirement; many schools have membership – here is how to use it.

The pages in the resources are listed for each day's lesson, but are summarised here. Sources are: MAV (Mathematical Association of Victoria), CC (Curriculum Corporation), LF (Learning Federation).

- *Teaching*: Maths Continuum (DoE), Teach for understanding (MAV), People count (MAV), Guidelines in Number (MAV),
- *Worksheets*: Active Learning 1 (N&A), Active Learning 2 (N&A) (both MAV), Card capers, Dice dazzlers (MAV), Number boards (MAV), Tuning in with task cards (MAV),
- *Computer*: Interactive Learning (MAV), Active Learning 2 (MAV), Learning Objects (LF)
- *Problem solving*: Maths300 (MAV), Problem Solving Task Centre (CC), RIME (MAV), RIME 5&6 (MAV)

How could it be adapted to different situations?

If your class does not have the range predicted, or you cannot manage three or four groups, you should adapt by ignoring columns. You may substitute other learning tasks at any time. If you run out of time, leave stuff out. In this rich environment you will be surprised how much is learned outside the 'planned' activities.

How do I assess the learning?

Your observations, digital photographs and copies of children's work will be more useful than any external 'test'.

Scope and sequence

| 2 weeks per term | Term 1 | Term 2 | Term 3 | Term 4 |
|------------------|-----------------------------------|----------------------------------|---|---------------------------------------|
| Year 3 | Place value | Addition, subtraction to 99 | Place value and addition to 999 | Multiplication facts to 100 |
| Year 4 | Place value and subtraction to 99 | Number laws, meaning of division | Place value, addition, subtraction to 999 | Multiplication, division facts to 100 |

Year 3

Year 3 Term 1

| Day | Yr 3 term 1 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|---|--|
| 1,2 | Maths300 #26 Highest number 1/2 | | |
| 3 | <p style="text-align: center;">Teach</p> <p style="text-align: center;">Place value (tens and ones)</p> <p style="text-align: center;">Teach for understanding Number # 2#1</p> <p style="text-align: center;">Continuum 1.25 Counting with two-digit numbers</p> <p style="text-align: center;">Guidelines in Number p9, 17</p> <p style="text-align: center;">People count #3</p> | <p style="text-align: center;">Computer</p> <p style="text-align: center;">Interactive Learning Adding to 20, Adding single digits, Subtract from 20, Skip count to 9999, Skip count to 140</p> <p style="text-align: center;">Learning Objects Wishball, Decimaste</p> | <p style="text-align: center;">Worksheet / hands-on</p> <p style="text-align: center;">Active Learning 1 (N&A) N2 Building the greatest</p> <p style="text-align: center;">Active Learning 2 (N&A) Quickmaths Sets 1-3, N1 Sum games</p> <p style="text-align: center;">Card Capers, Dice Dazzlers</p> <p style="text-align: center;">Problem Solving Task Centre</p> <p>4&20 blackbirds, Add the pack, A dollar to spend, Bobs' buttons, Change, Cover up, Doctor Dart, Dominoes, Doug's tablecloth, Eureka, Magic square, Martian maths, Monkeys & bananas, Number game, Number tiles, Pascal's triangle in Asia, Pick-a-box, Steps</p> |
| 4 | <p style="text-align: center;">Worksheet / games</p> <p>Card capers: p8, 9, 13, 32</p> <p>Dice dazzlers: p46-47</p> <p>Tuning in with task cards: lower primary</p> | <p style="text-align: center;">Teach</p> <p style="text-align: center;">Place value to 1000</p> <p style="text-align: center;">Teach for understanding Number #</p> <p style="text-align: center;">Continuum 2.25 Renaming three-digit whole numbers.</p> <p style="text-align: center;">Guidelines in Number p53-58</p> <p style="text-align: center;">People count #3</p> | <p style="text-align: center;">Computer</p> <p style="text-align: center;">Interactive Learning Money by 10 or 100, 10 or 100 times what? Reading a scale, Powers of 10(x), Powers of 10 (÷)</p> <p style="text-align: center;">Learning Objects Decimaster, Wishball</p> |
| 5 | <p style="text-align: center;">Computer</p> <p style="text-align: center;">Interactive Learning Skip count to 9999, Skip count back from 9999,</p> <p style="text-align: center;">Learning Objects Place value to 1000, Wishball</p> | <p style="text-align: center;">Worksheet / games</p> <p style="text-align: center;">Active Learning 1 (N&A) N2 Building the greatest: Games 1, 2</p> <p style="text-align: center;">Active Learning 2 (N&A) Quickmaths Set 1</p> <p style="text-align: center;">Card Capers, Dice Dazzlers</p> | <p style="text-align: center;">Teach</p> <p style="text-align: center;">Place value to a million</p> <p style="text-align: center;">Teach for understanding Number #</p> <p style="text-align: center;">Guidelines in Number p51-58, 147-148, 153-156</p> <p style="text-align: center;">People count #9</p> |
| 6,7 | Maths300 #26 Highest number 2/2 | | |
| 8 | <p style="text-align: center;">Teach</p> <p style="text-align: center;">Place value, Number laws</p> <p style="text-align: center;">Teach for understanding Number #</p> <p style="text-align: center;">Continuum 1.5 Counting on, Complements to Ten</p> <p style="text-align: center;">Guidelines in Number p7-8, 15-16, 31-32.</p> <p style="text-align: center;">People count #3, 10</p> | <p style="text-align: center;">Computer</p> <p style="text-align: center;">See above day 3</p> | <p style="text-align: center;">Worksheet / games</p> <p style="text-align: center;">Active Learning 1 (N&A) N3 Number sentences</p> <p style="text-align: center;">Active Learning 2 (N&A) Quickmaths Sets 4-6</p> <p style="text-align: center;">Card Capers, Dice Dazzlers</p> <p style="text-align: center;">Problem Solving Task Centre</p> <p style="text-align: center;">See Year 3 Term 1 Day 3</p> |
| 9 | <p style="text-align: center;">Worksheet / games</p> <p style="text-align: center;">See Year 3 Term 1 Day 4</p> | <p style="text-align: center;">Teach</p> <p style="text-align: center;">Multiplication and division of</p> | <p style="text-align: center;">Computer</p> <p style="text-align: center;">See above day 4</p> |

| Day | Yr 3 term 1 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|---|---|
| | Problem Solving Task Centre See Year 3 Term 1 Day 4 | whole numbers by 10 Teach for understanding Number # People count #9 Number boards: middle primary p29 | |
| 10 | Computer See above day 5 | Worksheet / games Active Learning 1 (N&A) N2 Building the greatest Games 3, 4 Active Learning 2 (N&A) Quickmaths Set 2 Card Capers, Dice Dazzlers Problem Solving Task Centre See Year 3 Term 1 Day 5 | Teach Addition, inc associative and commutative Teach for understanding Number # Guidelines in Number p63, 70, 79-82, 85-86, 124-128 People count #5 |

Year 3 Term 2

| Day | Yr 3 term 2 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|---|---|
| 1,2 | Maths300 #66 Dominoes 1/2 | | |
| 3 | Teach Addition and subtraction to 100, mentally Teach for understanding Number # Continuum 1.75 Using a hundreds chart for mental calculation, Fact families (Addition and Subtraction) Guidelines in Number p36, 53-55, 57-58 People count #4 | Computer Interactive Learning Grid patterns, Adding to 100, Doubling, Adding, Add money, Backwards adding, Addition facts, Subtraction facts, Subtract from 100, Subtract by adding, Differences, Subtract any from 100 Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider, The multiplier | Worksheet / games Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Sets 7-9, N2 Order of operations, N4 Patterns Card Capers, Dice Dazzlers Problem Solving Task Centre See Year 3 Term 1 Day 3 |
| 4 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Add and subtract to 100 mentally Teach for understanding Number # Guidelines in Number p63, 70 Continuum 1.75 Fact families (addition and subtraction) People count #4 | Computer Interactive Learning Subtract hundreds, Three circles puzzle, Checking change, Long multiplication, Estimate to multiply, Single digit multiply, Estimate to multiply, Two digit multiply, Estimate multiplying, Long multiplication Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider |
| 5 | Computer Interactive Learning Skip count to 140, Grid patterns, Adding to 100, Doubling, Adding, Add money, Backwards adding, Addition facts, Subtraction facts, Subtract from 100, Subtract by adding, Differences, Subtract any | Worksheet / games Active Learning 1 (N&A) N2 Building the greatest Games 5, 6 Active Learning 2 (N&A) Quickmaths Set 3 Number grids Games p29-43 | Teach Subtraction, inc. commutative and associative laws Teach for understanding Number # |

| Day | Yr 3 term 2 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|--|---|
| | from 100, Groups of (small) Learning Objects The number partner | Problem Solving Task Centre See Year 3 Term 1 Day 5 | Guidelines in Number p64-65, 129, 176 People count #5 |
| 6,7 | Maths300 #66 Dominoes 2/2 | | |
| 8 | Teach Understanding multiplication Teach for understanding Number # Guidelines in Number p13, 24 People count #6 | Computer See above day 3 | Worksheet / games Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Sets 7-9, N2 Order of operations, N4 Patterns Card Capers, Dice Dazzlers Problem Solving Task Centre See Year 3 Term 1 Day 3 |
| 9 | Worksheet / games Tuning in with task cards – lower primary Card capers: p35, 36, 38, 43 Dice dazzlers: p22-2 Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Add and subtract, as inverse operations, and number laws Teach for understanding Number # Guidelines in Number p47-48 Continuum 1.5 Using a hundreds chart for mental calculation People count #4 | Computer See above day 4 |
| 10 | Computer See above day 5 | Worksheet / games Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Set 4 Card Capers (J) Problem Solving Task Centre See Year 3 Term 1 Day 5 | Teach Subtraction of hundreds, inc. ‘middle zero’ problem Teach for understanding Number # Guidelines in Number p64-65, 129, 176 People count #5 |

Year 3 Term 3

| Day | Yr 3 term 3 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|--|---|
| 1,2 | Maths300 #30 Truth tiles 1/2 | | |
| 3 | Teach Place value (hundreds, tens, ones) Teach for understanding Number # Continuum 2.0 Skip counting, 2.25 Renaming three-digit whole numbers Guidelines in Number p15-18, 35 People count #3 | Computer Interactive Learning Grid patterns, Adding to 100, Doubling, Adding, Add money, Backwards adding, Addition facts, Subtraction facts, Subtract from 100, Subtract by adding, Differences, Subtract any from 100 Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider, The multiplier | Worksheet / games Active Learning 1 (N&A) N5 Patterns in the multiplication table Active Learning 2 (N&A) Quickmaths Sets 10-12, N7 Number puzzles Tackling tables Problem Solving Task Centre See Year 3 Term 1 Day 3 |

| Day | Yr 3 term 3 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|---|--|
| 4 | <p>Worksheet / games</p> <p>Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre</p> <p>See Year 4 Term 1 Day 4</p> | <p>Teach</p> <p>Single digit multiplication</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p47, 65</p> <p>Continuum 2.75 Better multiplication strategies, Fact families (Multiplication and Division)</p> <p>People count #6</p> | <p>Computer</p> <p>Interactive Learning Subtract hundreds, Three circles puzzle, Checking change, Long multiplication, Estimate to multiply, Single digit multiply, Estimate to multiply, Two digit multiply, Estimate multiplying, Long multiplication</p> <p>Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider</p> |
| 5 | <p>Computer</p> <p>Interactive Learning Skip count to 9999, Money by 10 or 100, 10 or 100 times what?</p> <p>Addition facts, Skip count to 140, Grid patterns, Adding to 100, Doubling, Adding, Add money,</p> <p>Learning Objects Place value to 1000, Wishball,</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N4 Number facts through card games</p> <p>Active Learning 2 (N&A) Quickmaths Set 5</p> <p>Card Capers, Dice Dazzlers</p> <p>Problem Solving Task Centre</p> <p>See Year 3 Term 1 Day 5</p> | <p>Teach</p> <p>Subtraction of hundreds, inc. ‘middle zero’ problem</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p64-65, 129, 176</p> <p>People count #5</p> |
| 6,7 | Maths300 #30 Truth tiles 2/2 | | |
| 8 | <p>Teach</p> <p>Place value and addition</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p40-49, 62-70</p> <p>People count #5</p> | <p>Computer</p> <p>See above day 3</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N6 Sticky numbers</p> <p>Active Learning 2 (N&A) Quickmaths Sets 13-15</p> <p>Card Capers, Dice Dazzlers</p> <p>Problem Solving Task Centre</p> <p>See Year 3 Term 1 Day 3</p> |
| 9 | <p>Worksheet / games</p> <p>Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre</p> <p>See Year 4 Term 1 Day 4</p> | <p>Teach</p> <p>Single digit multiplication</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p47, 65</p> <p>Continuum 2.75 Better multiplication strategies</p> <p>People count #6</p> | <p>Computer</p> <p>See above day 4</p> |
| 10 | <p>Computer</p> <p>See above day 5</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N4 Number facts through card games</p> <p>Active Learning 2 (N&A) Quickmaths Set 6</p> <p>Tackling tables</p> <p>Problem Solving Task Centre</p> <p>See Year 3 Term 1 Day 5</p> | <p>Teach</p> <p>Multiplying by single digits and by 10</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p65-70, 125</p> <p>Continuum 3.0 Fluent recall of multiplication facts, 3.25 Choosing multiplication and division</p> <p>People count #11</p> |

Year 3 Term 4

| Day | Yr 3 term 4 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|--|--|
| 1,2 | Maths300 #84 Number charts 1/2 | | |
| 3 | Teach Understanding multiplication to 10 x 10 Teach for understanding Number # Guidelines in Number p40-49, 62-70 People count #6 | Computer Interactive Learning Groups of (small), Groups of, Tables, Multiplication facts, Multo Random, Learning Objects The multiplier | Worksheet / games Active Learning 1 (N&A) N7 Mirror products Active Learning 2 (N&A) Quickmaths Sets 16-18 Tackling tables Problem Solving Task Centre See Year 3 Term 1 Day 3 |
| 4 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Multiplication tables Teach for understanding Number # Guidelines in Number p67, 92, 123-124, 168-172 Continuum 3.0 Fluent recall of multiplication facts People count #8 | Computer Interactive Learning Missing numbers, Multo Random, Multiple patterns, Order of operations, Biggest number, Distributive laws, Estimate to multiply, Single digit multiply, Two digit multiply, Estimate multiplying, Long multiplication Learning Objects The multiplier, Divide it up, Integer cruncher, Hopper, School canteen, The divider |
| 5 | Computer Interactive Learning Groups of (small), Groups of, Tables, Multiplication facts, Learning Objects The multiplier, Pebble array, Arrays | Worksheet / games Active Learning 1 (N&A) N5 Patterns in the multiplication table Active Learning 2 (N&A) Quickmaths Set 7 Tackling tables Problem Solving Task Centre See Year 3 Term 1 Day 5 | Teach (Long) multiplication by two digit numbers Teach for understanding Number # Guidelines in Number p131-134, 178 Continuum 4.0 Partial products in multiplication People count #11 |
| 6,7 | Maths300 #84 Number charts 2/2 | | |
| 8 | Teach Multiplication facts with understanding Teach for understanding Number # Guidelines in Number p40-49, 62-70 People count #6, 8 | Computer See above day 3 | Worksheet / games Active Learning 1 (N&A) N8 Sequences Active Learning 2 (N&A) Quickmaths Sets 19-21 Dice Dazzlers Problem Solving Task Centre See Year 3 Term 1 Day 3 |
| 9 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 3 Term 1 Day 4 | Teach Multiplication, estimating and calculators Teach for understanding Number # Guidelines in Number p94, 1125, 173 Continuum | Computer See above day 4 |

| Day | Yr 3 term 4 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|------------------------------------|--|--|
| | | 3.25 Choosing multiplication or division People count #6 | |
| 10 | Computer See above day 5 | Worksheet / games Active Learning 1 (N&A) N5 Patterns in the multiplication table Active Learning 2 (N&A) Quickmaths Set 8 Tackling tables Problem Solving Task Centre See Year 3 Term 1 Day 5 | Teach Multiplication, distributive law and order of operations Teach for understanding Number # Continuum 3.25 Order of operations People count #10 RIME N6 'Got It!' |

Year 4

Year 4 Term 1

| Day | Yr 4 term 1 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|---|---|
| 1,2 | Maths300 #87 Making one million | | |
| 3 | Teach Place value to thousands Teach for understanding Number # Guidelines in Number p36, 57-58. People count #3 | Computer Interactive Learning Grid patterns, Adding to 100, Doubling, Adding, Add money, Backwards adding, Addition facts, Subtraction facts, Subtract from 100, Subtract by adding, Differences, Subtract any from 100 Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider, The multiplier | Worksheet / games Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Sets 7-9, N2 Order of operations, N4 Patterns Card Capers, Dice Dazzlers Problem Solving Task Centre 4&20 blackbirds, Add the pack, A dollar to spend, Bobs' buttons, Change, Cover up, Doctor Dart, Dominoes, Doug's tablecloth, Eureka, Magic square, Martian maths, Monkeys & bananas, Number game, Number tiles, Pascal's triangle in Asia, Pick-a-box, Steps |
| 4 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre Challenge, Consecutive sums, Criss-cross numbers, Crosses, Domino trails, Eric the sheep, Guessing colours game, Highest number 1, How many beans? Nim, Row points, Soft drink crates, Truth tiles, Truth tiles 2, Which floor? Window frames | Teach Add and subtract to 100 mentally Teach for understanding Number # Guidelines in Number p63, 70 Continuum 1.75 Fact families People count #4 | Computer Interactive Learning Subtract hundreds, Three circles puzzle, Checking change, Long multiplication, Estimate to multiply, Single digit multiply, Estimate to multiply, Two digit multiply, Estimate multiplying, Long multiplication Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider |
| 5 | Computer Interactive Learning Skip count to 9999, Skip count back | Worksheet / games Active Learning 1 (N&A) N2 Building the greatest Games 5, 6 | Teach Subtraction, inc. commutative and associative |

| Day | Yr 4 term 1 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|---|--|
| | <p>from 9999, Money by 10 or 100, 10 or 100 times what?</p> <p>Addition facts, Skip count to 140, Grid patterns, Adding to 100, Doubling, Adding, Add money,</p> <p>Subtraction facts, Subtract from 100, Backwards adding, Subtract by adding, Differences, Subtract any from 100</p> <p>Learning Objects The number partner</p> | <p>Active Learning 2 (N&A) Quickmaths Set 3</p> <p>Number grids Games p29-43</p> | <p>laws</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p64-65, 129, 176</p> |
| 6,7 | Maths300 #87 Making one million | | |
| 8 | <p>Teach</p> <p>Place value and subtraction</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p40-49, 62-70</p> <p>People count #5</p> | <p>Computer</p> <p>See above day 3</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N5 Patterns in the multiplication table</p> <p>Active Learning 2 (N&A) Quickmaths Sets 10-12, N7 Number puzzles</p> <p>Tackling tables</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 3</p> |
| 9 | <p>Worksheet / games</p> <p>Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 4</p> | <p>Teach</p> <p>Add and subtract, as inverse operations, and number laws</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p47-48</p> <p>Continuum 1.5 Using a hundreds chart for mental calculation</p> <p>People count #4</p> | <p>Computer</p> <p>See above day 4</p> |
| 10 | <p>Computer</p> <p>See above day 5</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N4 Number facts through card games</p> <p>Active Learning 2 (N&A) Quickmaths Set 4</p> <p>Card Capers (J)</p> <p>Problem Solving Task Centre See Year 3 Term 1 Day 5</p> | <p>Teach</p> <p>Subtraction of hundreds, inc. ‘middle zero’ problem</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p64-65, 129, 176</p> <p>People count #5</p> |

Year 4 Term 2

| Day | Yr 4 term 2 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|---|--|
| 1,2 | Maths300 #96 Take-away of the day | | |
| 3 | Teach Number laws, particularly multiplication distributed over addition Teach for understanding Number # Guidelines in Number p33-35, 55-56 People count #11 | Computer Interactive Learning Grid patterns, Adding to 100, Doubling, Adding, Add money, Backwards adding, Addition facts, Subtraction facts, Subtract from 100, Subtract by adding, Differences, Subtract any from 100 Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider, The multiplier | Worksheet / games Active Learning 1 (N&A) N6 Sticky numbers Active Learning 2 (N&A) Quickmaths Sets 13-15 Card Capers, Dice Dazzlers Problem Solving Task Centre See Year 4 Term 1 |
| 4 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Single digit multiplication Teach for understanding Number # Guidelines in Number p47, 65 Continuum 2.75 Better multiplication strategies People count #6 | Computer Interactive Learning Missing numbers, Multo Random, Multiple patterns, Order of operations, Biggest number, Distributive laws, Estimate to multiply, Single digit multiply, Two digit multiply, Estimate multiplying, Long multiplication Learning Objects The multiplier, Divide it up, Hopper, School canteen, The divider |
| 5 | Computer Interactive Learning Order of operations, Biggest number, Distributive laws Dividing up to 100, Division facts, Backwards multiplying, Guzintas Learning Objects Number laws, The multiplier The divider, Divide it up, | Worksheet / games Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Set 5 Tackling tables | Teach Multiplication, distributive law and order of operations Teach for understanding Number # People count #10 Continuum 3.75 Identifying factors and relationship to multiplication RIME N6 'Got It!' |
| 6,7 | Maths300 # Trial, record, improve | | |
| 8 | Teach Understanding division Teach for understanding Number # Continuum 2.25 Early division ideas Guidelines in Number p13, 25-28, 45-46, 66 People count #7 | Computer See above day 3 | Worksheet / games Active Learning 1 (N&A) N9 Remainder game Active Learning 2 (N&A) Quickmaths Sets 22-24 Problem Solving Task Centre See Year 4 Term 1 Day 3 |
| 9 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Multiplying by single digits and by 10 Teach for understanding Number # Guidelines in Number p65 | Computer See above day 4 |

| Day | Yr 4 term 2 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|------------------------------------|--|---|
| | | Continuum 3.0 Fluent recall of multiplication facts People count #11 | |
| 10 | Computer See above day 5 | Worksheet / hands-on Active Learning 1 (N&A) N4 Number facts through card games Active Learning 2 (N&A) Quickmaths Set 6 Tackling tables Problem Solving Task Centre See Year 4 Term 1 Day 5 | Teach Division facts (reverse multiplication) Teach for understanding Number # Guidelines in Number p25 People count #7 |

Year 4 Term 3

| Day | Yr 4 term 3 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|--|--|
| 1,2 | Maths300 #97 Tackling times tables | | |
| 3 | Teach Place value Teach for understanding Number # Guidelines in Number p People count #3 | Computer Interactive Learning Dividing up to 100, Division facts, Backwards multiplying, Spirolaterals, Common factor, Finding half, Remainders, Renaming numbers, Dividing with remainders Order of operations, Biggest number Learning Objects The divider, Divide it up, Number laws, The multiplier | Worksheet / games Active Learning 1 (N&A) N9 Remainder game, N11 Checkmath Active Learning 2 (N&A) Quickmaths Set 11 Problem Solving Task Centre See Year 4 Term 1 Day 3 |
| 4 | Worksheet / games Tuning in with task cards – lower primary Problem Solving Task Centre See Year 4 Term 1 Day 4 | Teach Multiplication tables Teach for understanding Number # Guidelines in Number p67, 92, 123-124, 168-172 Continuum 3.0 Fluent recall of multiplication facts People count #8 | Computer Interactive Learning Dividing up to 100, Division facts, Backwards multiplying, Spirolaterals, Common factor, Finding half, Remainders, Renaming numbers, Dividing with remainders, Single digit divide, Estimate one-digit divide, Lockers, Mirror products, Sticky numbers, Learning Objects Divide it up, Integer cruncher, Hopper, School canteen, The divider |
| 5 | Computer Interactive Learning Skip count to 9999, Skip count back from 9999, Money by 10 or 100, 10 or 100 times what? Learning Objects Wishball, Decimaster | Worksheet / games Active Learning 1 (N&A) N5 Patterns in the multiplication table Active Learning 2 (N&A) Quickmaths Set 7 Tackling tables Problem Solving Task Centre See Year 4 Term 1 Day 5 | Teach Order of operations Teach for understanding Number # Guidelines in Number p178-183 People count #10 RIME N6 Got It |
| 6,7 | Maths300 #97 Tackling times tables | | |
| 8 | Teach Place value and subtraction | Computer See above day 4 | Worksheet / games Active Learning 1 (N&A) |

| Day | Yr 4 term 3 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|---|--|---|
| | <p>Teach for understanding Number #</p> <p>Guidelines in Number p People count #5</p> | | <p>N12 Divisibility</p> <p>Active Learning 2 (N&A) Quickmaths Sets</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 3</p> |
| 9 | <p>Worksheet / games Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 4</p> | <p>Teach multiplication, estimating and calculators</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p94, 125, 173</p> <p>Continuum 3.25 Choosing multiplication or division</p> <p>People count #6</p> | <p>Computer See above day 4</p> |
| 10 | <p>Computer See above day 5</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N5 Patterns in the multiplication table</p> <p>Active Learning 2 (N&A) Quickmaths Set 8</p> <p>Tackling tables</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 5</p> | <p>Teach</p> <p>Two-digit numbers divided by one digit inc. by zero</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p66, 88, 134, 180</p> <p>Continuum 3.25 Choosing multiplication or division</p> <p>People count #12</p> |

Year 4 Term 4

| Day | Yr 4 term 4 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|---|---|
| 1,2 | Maths300 #97 Tackling times tables | | |
| 3 | <p>Teach</p> <p>Learning times tables (multiplication and division) with understanding</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p People count #8</p> | <p>Computer</p> <p>Interactive Learning Groups of (small), Groups of, Tables, Multiplication facts, Multo Random,</p> <p>Learning Objects The multiplier</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N20 Dividing by whole numbers in your head</p> <p>Active Learning 2 (N&A) Quickmaths Sets 25-27</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 3</p> |
| 4 | <p>Worksheet / games Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 4</p> | <p>Teach single digit multiplication and extensions</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p68, 93, 124</p> <p>People count #8</p> | <p>Computer</p> <p>Interactive Learning Missing numbers, Multo Random, Multiple patterns, Order of operations, Biggest number, Distributive laws, Estimate to multiply, Single digit multiply, Two digit multiply, Estimate multiplying, Long multiplication</p> <p>Learning Objects The multiplier, Divide it up, Integer cruncher, Hopper, School canteen, The divider</p> |

| Day | Yr 4 term 4 Std 2 group(s) | Towards Std 3 group(s) | Towards Std 4 group(s) |
|-----|--|--|--|
| 5 | <p>Computer</p> <p>Interactive Learning Groups of (small), Groups of, Tables, Multiplication facts, Missing numbers, Multiplying, Number line multiplying, Multo Random, Multiple patterns</p> <p>Learning Objects The multiplier, Pebble array, Arrays</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N13 Card games for factors</p> <p>Active Learning 2 (N&A) Quickmaths Set 9</p> <p>Card Capers p7</p> <p>Dice Dilemmas p24</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 5</p> | <p>Teach</p> <p>Division of numbers to 100, with remainders</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p66</p> <p>Continuum 3.25 Choosing multiplication or division</p> <p>People count #7</p> |
| 6,7 | Maths300 #97 Tackling times tables | | |
| 8 | <p>Teach</p> <p>Understanding multiplication & division as inverses, to 10 x 10</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p</p> <p>People count #7, 11</p> | <p>Computer</p> <p>See above day 3</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N11 Checkmath</p> <p>Active Learning 2 (N&A) Quickmaths Sets 28-30</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 3</p> |
| 9 | <p>Worksheet / games</p> <p>Tuning in with task cards – lower primary</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 4</p> | <p>Teach</p> <p>Division facts (reverse multiplication)</p> <p>Teach for understanding Number #</p> <p>Continuum 2.75 Fact families (Multiplication and Division)</p> <p>Guidelines in Number p25</p> <p>People count #7</p> | <p>Computer</p> <p>See above day 4</p> |
| 10 | <p>Computer</p> <p>See above day 5</p> | <p>Worksheet / games</p> <p>Active Learning 1 (N&A) N9 Remainder game, N11 Checkmath</p> <p>Active Learning 2 (N&A) Quickmaths Set 11</p> <p>Problem Solving Task Centre See Year 4 Term 1 Day 5</p> | <p>Teach</p> <p>Division distributive law, and division of 3-digit numbers by single digit</p> <p>Teach for understanding Number #</p> <p>Guidelines in Number p88-91, 180-183</p> <p>People count #12</p> |