

TRIAL MATERIAL WORK IN PROGRESS

Differentiated plans for Years 7 & 8

Fractions, decimals, percentages & ratios

Ian Lowe, MAV Professional Officer, 2006

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PLEASE PROVIDE FEEDBACK TO IAN AT**

ilowe@mav.vic.edu.au

**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 7 & 8

Fractions, decimals, percentages and ratios

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What do we have here?

Fractions and its associated ideas are difficult for children. But they are a major focus for VELs Standard 4 – Years 5 and 6 for the average child. So extra effort is required to create a rich learning environment that can help children to understand and to achieve at their own level. This combined topic is given 4 to 5 weeks, depending on interruptions.

This set of units – one per semester for Years 7 & 8 – could achieve this goal. It 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 7 and 8 the spread will be from Standard 2 or 3 up to 6, with the majority working towards Standard 4 or 5. At regular intervals whole class lessons are taught to 'mixed ability' groups.

Around these are cycles of a fixed pattern of lessons. In Years 7 and 8, the cycle has four parts: teaching, worksheet or games, problem solving (choice from a set of tasks) and computer use (a variety).

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*: Guidelines in Number (MAV), Maths Continuum (DE&T), People count (MAV)
 - *Worksheets*: Active Learning 1 (Number), Active Learning 2 (Number) (MAV),
- No textbooks are listed, but use them as required if you wish.
- *Computer*: Interactive Learning (MAV), Learning Objects (LF)
 - *Problem solving*: Problem Solving Task Centre (CC), RIME (MAV), Maths300 (CC), RIME 5&6 (MAV)

How could it be adapted to different situations?

There is no expectation that lessons are sequential. Blocks of time without follow up lead to memory loss.

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'.
- Above all, if children have not all learned the same things, they should not attempt the same 'test'.

Year 7 Semester 1 Fractions, decimals, percentages, ratios

Day	Yr 7 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
1	RIME #20 Compass fractions			
2	<p align="center">Teach</p> <p align="center">Basic: numerator and denominator</p> <p>Continuum 3.25 Fraction wall</p> <p>Guidelines in Number p37-39, 59</p> <p>People count #18</p>	<p align="center">Computer</p> <p>Interactive Learning Fractions of an amount, Rod fractions, Mixed numbers, Improper fractions, Skip count fractions, Missing fractions</p> <p>Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools</p>	<p align="center">Problem Solving Task Centre</p> <p>37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,</p>	<p align="center">Worksheet/hands-on</p> <p>Active Learning 1 (Number) N30 You are what you eat</p> <p>Active Learning 2 (Number) N19 Maths@work: Buying, N9 Fraction applications</p>
3	<p align="center">Worksheet/hands-on</p> <p>Active Learning 1 (Number) F1 Fraction circles,</p>	<p align="center">Teach</p> <p align="center">Equivalent fractions, add, subtract</p> <p>Continuum 3.25 Fraction wall</p> <p>Guidelines in Number p119-120, 160-162</p> <p>People count #23, 26</p>	<p align="center">Computer</p> <p>Interactive Learning Fractions of an amount, Rod fractions, Mixed numbers, Improper fractions, Skip count fractions, Missing fractions</p> <p>Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools</p>	<p align="center">Problem Solving Task Centre</p> <p>222 Making fractions 1</p>
4	<p align="center">Problem Solving Task Centre</p> <p>201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole,</p>	<p align="center">Worksheet/hands-on</p> <p>Active Learning 1 (Number) F3 Fraction rally</p> <p>Active Learning 2 (Number) N14 Using fractions</p>	<p align="center">Teach</p> <p align="center">Converting fractions to decimals by dividing</p> <p>People count #15</p>	<p align="center">Computer</p> <p>Interactive Learning Estimate to multiply, Estimate multiplying, Estimate one-digit divide, Estimate to divide, Division fact rounding</p>
5	<p align="center">Computer</p> <p>Interactive Learning Fraction bars and pies, Fractions up to 1, Fractions of an amount, Rod fractions</p> <p>Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools</p>	<p align="center">Problem Solving Task Centre</p> <p>177 Making Fractions 2, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game</p>	<p align="center">Worksheet/hands-on</p> <p>Active Learning 1 (Number) F4 Fractions on a graph,</p>	<p align="center">Teach</p> <p align="center">Estimation and smart use of calculator</p> <p>People count #16, 17</p>
6	RIME #22 Fractions of whole numbers			
7	<p align="center">Teach</p> <p align="center">Mixed numbers, improper fractions</p> <p>Guidelines in Number p60</p> <p>People count #19</p>	<p align="center">Computer</p> <p>Interactive Learning Equal circle fractions, Equal square fractions, Equal line fractions, Equal block fractions, Clock fractions, Graph fractions</p> <p>Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools</p>	<p align="center">Problem Solving Task Centre</p> <p>37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,</p>	<p align="center">Worksheet/hands-on</p> <p>Active Learning 1 (Number) N31 How energetic are you?</p> <p>Active Learning 2 (Number) N15 Maths@work: Bank on it</p>
8	Worksheet / games	Teach	Computer	Worksheet/hands-on

Day	Yr 7 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
		Fractions of whole numbers (i.e. multiply) Guidelines in Number p121 Continuum 3.5 Act. 1, 2 People count #20	Interactive Learning Skip count decimals, Spending money, Subtracting money, Estimating decimals, Ordering decimals, Reading a scale, Powers of 10 (x), Powers of 10 (÷) Learning objects Decimaster	Active Learning 2 (Number) N16 Maths@work: who uses proportion? Active Learning 1 (Number) N33 Proportion concept test,
9	Problem Solving Task Centre 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole,	Worksheet/hands-on Active Learning 1 (Number) F1 Fraction circles Active Learning 2 (Number) N5 Fractions	Teach Multiply: fractions by whole numbers, decimals by whole numbers, tenths by tenths Guidelines in Number p121 Continuum 3.5 Act. 1, 2 People count #20, 15, 27	Computer Interactive Learning Multiply & divide by decimals, Decimal dividing, Percentage problems, Interest, Compound interest Learning objects Decimaster
10	Computer Interactive Learning Mixed numbers, Improper fractions Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools	Problem Solving Task Centre 177 Making Fractions 2, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 1 (Number) F5 Fraction magic squares and unit fractions, Active Learning 2 (Number) N9 Fraction applications	Teach Ratio and proportion Guidelines in Number p163 Continuum 5.5 Act. 1, 2 People count #20
11	RIME #24 Order of fractions			
12	Teach Equivalent fractions Continuum 3.25 Fraction wall People count #23	Computer Interactive Learning Fractions of dollars, Fractions of time, Fractions of numbers, Fractions of money Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,	Worksheet/hands-on Active Learning 2 (Number) N17 Understanding proportions
13	Worksheet/hands-on Active Learning 1 (Number) F3 Fraction rally	Teach Comparing fractions Guidelines in Number p84, 115-117 Continuum 3.5 Activity 3 People count #22	Computer Interactive Learning Fractions of a dollar, Ones times tenths, Tenths times tenths, Multiply by tenths, Estimate to multiply, Fractions of (circles), Fractions of (strips), Fractions of (rectangle) Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools	Worksheet/hands-on Active Learning 1 (Number) N32 Bike speeds,
14	Problem Solving Task Centre	Worksheet/hands-on Active Learning 1 (Number)	Teach Dividing whole	Computer Interactive Learning Ratio on a number line,

Day	Yr 7 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
	201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole,	F2 Fractions of things,	numbers and decimals by whole numbers, with remainders as fractions or decimals Guidelines in Number p134-137 People count #15	Fractions to percentages, Spirograph, Estimating ratios, Right-angled triangles, Sharing by ratio, Proportion, Orange cordial, Proportional cordial Learning objects Squirt, Scale matters
15	Computer Interactive Learning Skip count fractions, Missing fractions Learning objects Design briefs, Fraction fiddle, Dynamic tools	Problem Solving Task Centre 177 Making Fractions 2, 205 Peg & Tape Fractions, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 2 (Number) N6 Dividing Active Learning 1 (Number) F13 Estimating percentages	Teach Equal ratios (Proportion) Continuum 5.5 Act. 3, 4
16	Maths300 #33 Estimating fractions			

Year 7 Semester 2 Fractions, decimals, percentages, ratios

Day	Yr 7 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
1	Maths300 #135 Chocolate cake			
2	Teach Tenths and hundredths Guidelines in Number p61, 73, 83, 103 People count #13	Computer Interactive Learning Comparing fractions, Fraction triangles Learning objects Design briefs, Fraction fiddle, Dynamic tools	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,	Worksheet/hands-on Active Learning 1 (Number) N34 Finding the whole thing,
3	Worksheet / games	Teach Add and subtract decimals Guidelines in Number p176-177 Continuum 4.0 Act. 1 to 4 People count #13	Computer Interactive Learning Dividing money, Remainders, Dividing with remainders, Estimate to divide (by whole numbers), Missing decimals Learning objects Design briefs, Fraction fiddle, Dynamic tools	Problem Solving Task Centre 37 Fraction Magic Square,
4	Problem Solving Task Centre 211 Soft Drink Crates, 218 Guessing Colours Game 177 Making Fractions 2,	Worksheet / games	Teach Multiply decimals, multiply fractions Continuum 4.75 People count #16, 27	Computer Interactive Learning Being paid, PAYG tax, Personal budget, Credit card1, Credit card2 Learning objects Squirt, Scale matters
5	Interactive Learning Estimating decimals, Ordering decimals, Reading a scale,	Problem Solving Task Centre 177 Making Fractions 2,	Worksheet/hands-on Active Learning 1 (Number)	Teach Proportion

Day	Yr 7 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
	Powers of 10 (x), Powers of 10 (÷) Learning objects Decimaster	205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	F7 Counter abacus,	People count #28 RIME Number & Algebra N33 Slopes
6	Maths300 #77 Rectangle fractions			
7	Teach Fractions of things Guidelines in Number p59, 60 People count #20	Computer Interactive Learning Estimating decimals, Fractions of a dollar, Guitar fractions, Subtracting money Learning objects Decimaster	Problem Solving Task Centre 202 Rod Mats,	Worksheet/hands-on Active Learning 1 (Number) F12 Dividing by decimals in your head, F13 Estimating percentages, F14 Percentage in your head,
8	Worksheet/hands-on Active Learning 1 (Number) F2 Fractions of things,	Teach Multiply decimals by whole numbers, rounding and estimating Guidelines in Number p133-134, 178-180 People count #15	Computer Interactive Learning Ones times tenths, Tenths times tenths, Multiply by tenths, Estimate to multiply, Fractions of (circles), Fractions of (strips), Fractions of (rectangle) Learning objects Decimaster	Worksheet/hands-on RIME A23 Billiard ball bounces, OR Maths300 #55 Billiard ball bounces,
9	Problem Solving Task Centre 211 Soft Drink Crates, 218 Guessing Colours Game 177 Making Fractions 2,	Worksheet / games	Teach converting fractions, decimals, percentages People count #21, 24	Computer Interactive Learning Hire purchase, Personal loan, Compound interest, Mortgage,
10	Computer Interactive Learning Fractions of dollars, Fractions of time, Fractions of numbers, Fractions of money Learning objects Fraction fiddle, Cassowary fractions	Problem Solving Task Centre 177 Making Fractions 2, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 1 (Number) F8 Order of operations,	Teach Proportion People count #28 RIME N34 Spirograph
11	RIME #26 Card thickness			
12	Teach Converting simple fractions to decimals Guidelines in Number p118 People count #24	Computer Interactive Learning Ones times tenths, Estimate to multiply Learning objects Decimaster	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,	Worksheet/hands-on Active Learning 1 (Number) N35 Percentage increases and decreases
13	Worksheet / games	Teach Divide whole	Computer Interactive Learning Guitar fractions,	Worksheet/hands-on Maths300

Day	Yr 7 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
		numbers and decimals by whole numbers, convert fractions to decimals Guidelines in Number p118, 134-137 People count #15, 24	Percentage fraction Learning objects Decimaster, Squirt, Scale matters	#54 Cracked tiles Active Learning 2 (Measurement, C&D) M20 Scale
14	Problem Solving Task Centre 211 Soft Drink Crates, 218 Guessing Colours Game 177 Making Fractions 2,	Worksheet / games	Teach Scale factors People count #44 RIME Number & Algebra N30 Finding scale factors	Computer Interactive Learning Spirograph, Car rental, Used car, Energy use, Learning objects Decimaster, Squirt, Scale matters
15	Computer Interactive Learning Comparing fractions, Fraction triangles, Equal circle fractions, Equal square fractions, Equal line fractions, Equal block fractions, Learning objects Decimaster	Problem Solving Task Centre 177 Making Fractions 2, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 2 (Measurement, C&D) M20 Scale RIME Number & Algebra N30 Finding scale factors	Teach Scale factors People count #44 RIME Number & Algebra N30 Finding scale factors
16	RIME #32 Enlarging cartoons			

Year 8 Semester 1 Fractions, decimals, percentages, ratios

Day	Yr 8 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
1	Library excursion – Dewey decimal system			
2	Teach Equivalent fractions and equal decimals People count #23, 24	Computer Interactive Learning Estimate to divide (by whole numbers), Missing decimals, Wage sheet Learning objects Decimaster	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,	Worksheets Maths at work Unit 1 Maths at work (1 of 4) Active Learning 2 (Number) N19 Maths@work: Buying
3	Worksheet / games	Teach Equivalent fractions, equal decimals and percentages People count #21, 23, 24	Computer Interactive Learning Add circle fractions, Add strip fractions, Add fractions, Subtract fractions, Fractions of (circles), Fractions of (strips), Fractions of (rectangle), Learning objects Design briefs, Fraction fiddle, Dynamic tools, Decimaster	Worksheets Maths at work Unit 1 Maths at work (2 of 4) Active Learning 2 (Number) N19 Maths@work: Buying
4	Problem Solving	Worksheet / games	Teach	Computer

Day	Yr 8 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
	Task Centre 177 Making Fractions 2, 199 Making Fractions 3, 211 Soft Drink Crates, 218 Guessing Colours Game		Percentages People count #21	Interactive Learning Estimate to multiply, Estimate multiplying, Estimate one-digit divide, Estimate to divide, Division fact rounding,
5	Computer Interactive Learning Equal circle fractions, Equal square fractions, Equal line fractions, Equal block fractions, Clock fractions, Graph fractions Learning objects Design briefs, Fraction fiddle, Cassowary fractions, Dynamic tools	Problem Solving Task Centre 177 Making Fractions 2, 199 Making Fractions 3, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 1 (Number) F14 Percentage in your head,	Teach Repeating decimals People count #24
6	Maths300 #9 First principles percentage			
7	Teach Add and subtract decimals Guidelines in Number p108-109, 112-114, 127-128 People count #13	Computer Interactive Learning Fractions of a dollar, Guitar fractions, Percentage square, Percentage pie, Percentage line, Percentage fraction, Percentage full, Percentage rectangle	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,	Worksheets Maths at work Unit 1 Maths at work (3 of 4) Active Learning 2 (Number) N20 Maths@work: Inflation
8	Active Learning 1 (Number) F9 Mentally adding and subtracting,	Teach dividing by whole numbers, remainders as fractions or decimals Guidelines in Number p134-137 People count #15	Computer Interactive Learning Multiply with powers of 10, Divide with powers of 10 Learning objects Decimaster	Worksheets Maths at work Unit 1 Maths at work (4 of 4) Active Learning 2 (Number) N20 Maths@work: Inflation
9	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet / games Active Learning 2 (Number) N14 Maths@work: Using fractions	Teach Convert fractions, percentages & decimals People count #21, 24	Computer Interactive Learning Repeating decimals, Decimals to fractions Active Learning 2 (Number) N21 Compound interest spreadsheet
10	Computer Interactive Learning Add circle fractions, Add strip fractions, Add fractions, Subtract fractions	Problem Solving Task Centre 37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game	Worksheet/hands-on Active Learning 1 (Number) F15 Percentage circles Active Learning 2 (Number) N9 Fraction applications, N13 Converting forms of fractions	Teach Repeating decimals People count #24
11	Maths300 #9 First principles percentage			

Day	Yr 8 sem 1: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
12	<p>Teach</p> <p>Decimals and fractions: order on number line</p> <p>Guidelines in Number p118</p> <p>People count #24</p>	<p>Computer</p> <p>Interactive Learning Dividing strips, Sharing dampers, Dividing money, Steps, Remainders, Dividing with remainders</p>	<p>Problem Solving Task Centre</p> <p>37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 205 Peg & Tape Fractions,</p>	<p>Worksheets</p> <p>Maths at work Unit 2 Doing mathematics</p>
13	<p>Worksheet/hands-on</p> <p>Active Learning 1 (Number) F13 Estimating percentages</p>	<p>Teach</p> <p>Percentages and decimals</p> <p>Guidelines in Number p165-167</p> <p>People count #14</p>	<p>Computer</p> <p>Interactive Learning Percentage problems, Interest</p> <p>Active Learning 2 (Number) N21 Compound interest spreadsheet</p>	<p>Worksheets</p> <p>Maths at work Unit 2 Doing mathematics</p>
14	<p>Problem Solving Task Centre</p> <p>37 Fraction Magic Square, 177 Making Fractions 2, 199 Making Fractions 3, 205 Peg & Tape Fractions, 211 Soft Drink Crates, 218 Guessing Colours Game</p>	<p>Worksheet / games</p>	<p>Teach</p> <p>Chance as fraction, decimal or percentage</p> <p>People count #64</p>	<p>Computer</p> <p>Interactive Learning Repeating decimals, Decimals to fractions</p> <p>Active Learning 2 (Number) N21 Compound interest spreadsheet</p>
15	<p>Computer</p> <p>Interactive Learning Estimating decimals, Ordering decimals, Reading a scale, Powers of 10 (x), Powers of 10 (÷)</p> <p>Learning objects Decimaster</p>	<p>Problem Solving Task Centre</p> <p>177 Making Fractions 2, 199 Making Fractions 3, 205 Peg & Tape Fractions 201 Rectangle Fractions, 202 Rod Mats, 203 Make The Whole, 211 Soft Drink Crates, 218 Guessing Colours Game</p>	<p>RIME</p> <p>#31 Equally likely- games</p>	<p>Teach</p> <p>Solving various percentage problems</p> <p>People count #21, 29</p>
16	Maths300 #11 This goes with this			

Year 8 Semester 2 Fractions, decimals, percentages, ratios

Day	Yr 8 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
1	RIME #29 Sharing by ratio			
2	<p>Teach</p> <p>Equivalent fractions and decimals</p> <p>People count #23</p>	<p>Computer</p> <p>Interactive Learning Sharing by ratio, Ratio on a number line, Estimating ratios, Right-angled triangles, Orange cordial</p> <p>Learning objects Squirt, Scale matters</p>	<p>RIME</p> <p>#29 Danger fractions</p>	<p>Worksheets</p> <p>Maths at work Unit 5 Moving out</p> <p>Active Learning 2 (Number) N15 Maths@work: Bank on it</p>
3	<p>Worksheet/hands-on</p> <p>Active Learning 1 (Number)</p>	<p>Teach</p> <p>Whole numbers and</p>	<p>Computer</p> <p>Interactive Learning Drawing pin, Die racing,</p>	<p>Worksheets</p> <p>Maths at work</p>

Day	Yr 8 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
	F11 Converting decimals to fractions,	decimals divided by whole numbers People count #15	Lotto Learning objects Squirt, Scale matters	Unit 5 Moving out
4	Worksheet/hands-on Active Learning 1 (Number) F10 Number hunt and Build-a- problem,	RIME #30 Estimating division	Teach Reciprocals People count #29	Computer Interactive Learning Percentage problems, Interest, Compound interest
5	Computer Interactive Learning Equal circle fractions, Equal square fractions, Equal line fractions, Equal block fractions	RIME #30 Estimating division	Worksheet/hands-on Active Learning 1 (Number) F6 Reciprocals and dividing,	Teach Scientific notation (numbers >1) People count #15 Active Learning 2 (Number) N18 Maths@work: Who uses exponents?
6	RIME #31 Same shape rectangles			
7	Teach Fractions of fractions People count #27	Computer Interactive Learning Estimate to divide (by whole numbers), Missing decimals Learning objects	Worksheet/hands-on Active Learning 1 (Number) F8 Order of operations,	Worksheets Maths at work Unit 10 Food and clothing costs Active Learning 2 (Number) N19 Maths@work: Buying
8	Worksheet / games	Teach Ratios People count #18	Computer Interactive Learning Estimate to divide (by whole numbers), Missing decimals Learning objects Squirt, Scale matters, Decimaster	Worksheets Maths at work Unit 10 Food and clothing costs
9	RIME #28 Multiplying fractions	Worksheet / games Active Learning 2 (Number) N16 Maths@work: Who uses proportion?	Teach Squares and exact square roots of fractions and decimals	Computer Interactive Learning Scientific notation, Being paid, Tax return, Personal loan, Car rental
10	Computer Interactive Learning Fractions of (circles), Fractions of (strips), Fractions of (rectangle)	Worksheet / games Active Learning 2 (Number) N16 Maths@work: Who uses proportion?	Worksheet/hands-on Active Learning 1 (Number) F9 Mentally adding and subtracting,	Teach Scientific notation (numbers <1) People count #15
11	RIME #30 Finding scale factors			
12	Teach Whole numbers of decimals, estimating and calculator use Guidelines in Number	Computer Interactive Learning Ratio on a number line, Estimating ratios, Right-angled triangles, Orange cordial, Learning objects	Worksheet/hands-on Active Learning 1 (Number) F10 Number hunt and Build-a- problem,	Worksheets Maths at work Unit 12 Leisure costs

Day	Yr 8 sem 2: Std 3	Towards Std 4	Towards Std 5	Towards Std 6
	p133-134, 178-180 People count #15	Squirt, Biscuit factory		
13	Worksheet/hands-on Active Learning 1 (Number) N30 You are what you eat,	Teach Chance as a fraction, decimal or percentage People count #64	Computer Interactive Learning Being paid, PAYG tax, Personal budget, Credit card1, Credit card2	Worksheets Maths at work Unit 12 Leisure costs
14	Worksheet/hands-on Active Learning 1 (Number) N31 How energetic are you?	RIME #31 Equally likely - games	Teach cubes and exact cube roots of fractions and decimals	Computer Interactive Learning Scientific notation, Being paid, Tax return, Personal loan, Car rental
15	Computer Interactive Learning Ones times tenths, Estimate to multiply	RIME #31 Equally likely - games	Worksheet/hands-on Active Learning 1 (Number) F11 Converting decimals to fractions,	Teach Calculation with scientific notation People count #15
16	RIME #33 Slope			