<u>Math Success - Grade 3</u> <u>Scope and Content</u>

Number Concepts:

Place value to 1000, describing and explaining Be able to show concrete numbers to 1000 Compare and order numbers to 1000 Skip count by 2s, 5s, 10s, 25s and 100s Round numbers to nearest 10 and 100 Estimate amounts to 1000 Read and write number words to 1000 Place value to 100,000 Read and write numbers to 100,000 Ordinal numbers to 100 Skip count by 3s, 4s, 6s, and 9s Even and odd numbers Fractions - halves, thirds, fourths, fifths and eighths Represent fractions using concrete materials



Number Operations

Model basic operations using concrete materials Recall addition and subtraction facts to 18 Missing addends Addition with and without re-grouping to 1000 Subtraction with and without re-grouping to 1000 Understand the concepts of multiplication and division Learn the multiplication facts to 9×9 - explore patterns Understand the relationship between the processes - inverse operations Use estimation strategies Use correct language to describe operations Solve problems and explain and justify the method chosen for solving Use a calculator to solve problems that are more difficult Add and subtract money

<u> Patterns:</u>

Identify, create and describe patterns Explain pattern rules Predict and continue patterns Understand the patterns in numbers (e.g. multiplication)

<u>Measurement:</u>

Understand the units: centimetre, metre, millimetre, litre, millilitre, gram, kilogram, degree C Estimate the capacity of containers, linear measure and weight Select the appropriate unit Measure and record Tell time and record in 12 hour notation Estimate and measure time in seconds, minutes, hours, days, weeks, months, years Digital and analog clocks Read a thermometer Understand denomination of coins and bills to \$100 and read and write amounts Perimeter and area, estimate and measure

Shapes and Space - 2D and 3D

Name, compare, contrast and classify two dimensional shapes and three dimensional objects Describe these by the faces, vertices, edges, sides and angles Describe and name prisms by the shape of the base

Statistics (Data Management)

Collect and record data Sort objects and data Do surveys and use appropriate graphs and charts to show results Use bar graphs and pie charts to show appropriate data Interpreting data



Lesson Content

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Weekly Vocabulary

- 1. add, adding, addition
- 2. subtract, subtracting, subtraction
- 3. addend, missing addend
- 4. sum
- 5. metre, centimetre, millimetre
- 6. words that indicate addition and subtraction in problems
- 7. ordinal numbers
- 8. place value words ones (units), tens, hundreds, thousands
- 9. denominator
- 10. inverse operations
- 11. concrete and abstract
- 12. units of time
- 13. re-group
- 14. perimeter
- 15. odd and even
- 16. numerator
- 17. rounding numbers
- 18. two-dimensional shapes or figures:
- 19. quadrilaterals
- 20. area
- 21. angle, acute, obtuse, right angle
- 22. parallel, parallelogram
- 23. cube, cone, sphere, cylinder, rectangular prism, and triangular prism. Describe them by using the words: angle, edge, vertices (corners, points), face.
- 24. tally marks
- 25. factors, product
- 26. divisor, dividend, quotient
- 27. points, lines, perpendicular lines, intersecting lines
- 28. symmetry
- 29. prime number



Problem Solving Clue Words

Note: You might make a chart of these words to help with the daily problem.

Clue words help you to know whether you add, subtract, multiply or divide. Look in the problem for these words. Be a detective!

Adding Words: sum total plus in all both together all together increased by perimeter total

Subtracting Words

subtract difference take away less than remain are left fewer how many more

Dividing Words

divided by half (or other fraction) shared equally cut up separated parts

Multiplying Words

times groups sets area total



Week 8 - Addition to 18, place value and addition of 2 digit numbers (no re-grouping), fractions, numbers to 500, multiplication × 2 and × 3

Day 1 - Addition to 18

<u>Oral Review</u> - Count by 3s to 30 and 4s to 40. Make several multiplication groupings. Write several numbers between 100 and 400. Review the 10 concept for subtraction and other strategies. Tell time and write it in digital form. Fractions - e.g. - 3/4 is 3 of the 4 pieces.



<u>Vocabulary Words</u> - Place value words. Generally early primary teachers use the word 'ones' for the first column - if that is what your students use, teach the word 'units'. A 'unit' is one of whatever we are counting. Then teach tens, hundreds and thousands showing the positions. Learn to spell the words.

<u>Daily Problem</u> - Make an decreasing number pattern with one rule. Subtract the same number each time. Pick a starting number between 40 and 60 and begin a pattern. Make a rule for your pattern. "My pattern begins at _____ and subtracts _____ each time."... for example.

<u>Lesson</u> - Review addition to 18. Elicit all the strategies the students have learned. Each student should use the strategies that suits his/her learning style.

How can we add and find answers quickly? Of course, memorization is best!

<u>Rule 1</u> - Always begin adding with the largest number. That cuts the number of problems in half! <u>Rule 2</u> - When adding 9, remember the ten frame and take one from the second frame to fill the first and make a 10. The answer will be one less than the smaller addend, plus 10. <u>Rule 3</u> - When adding 8, remember the ten frame and take two from the second frame. The answer will be two less than the smaller addend, plus 10.

Can you add with 7 this way?

<u>Rule 4</u> - Memorize the doubles.

Rule 5 - Use the doubles to add the doubles plus one.

Ask the students for the methods they use to add. Students may use more than one method differing methods on different questions. Go through the addition questions to 18, and discuss the strategies that fit certain questions.

<u>**Practice</u>** - 8.1 Do the drill sheet of addition to 18. Have them go through the sheet quickly first and answer all the questions that have been memorized. When they are finished, try to think of strategies to answer the questions left. Write out the difficult questions on the back of the page.</u>

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Review the strategies for addition.

Week 8 - Day 2 - Place value - units, tens and hundreds,

addition of 2 digit numbers without re-grouping

Oral <u>Review</u> - Discuss the 10 strategies when adding and subtracting. Review the doubles to 18. Count by 3s to 30 and 4s to 40. Make several multiplication groupings. Discuss writing numbers between 100 and 400. Tell time and write it in digital form. Fractions - e.g. - 2/3 is 2 of the 3 pieces.

<u>Vocabulary Words</u> - Place value words. Generally early primary teachers use the word 'ones' for the first column - if that is what your students use, teach the word 'units'. A 'unit' is one of whatever we are counting. Then teach tens, hundreds and thousands showing the positions. Learn to spell the words.

<u>Daily Problem</u> - Make an estimation jar with approximately 400 objects. Talk about making sensible estimates. Everyone hands in an estimate, and then the objects are counted, in tens and hundred groups, of course. Who has the closest estimate?

<u>Lesson</u> - Put the students into pairs or groups of 3 in labelled stations. Give them several hundred sticks to count and elastics to bind them. Each group counts the sticks and writes the station number and the total. They then undo the 10's and 100's and move to another station. After several stations, compare the totals for the various stations.

Discuss addition of larger numbers. Last year the students added 2 digit numbers without and with re-grouping. Write the question 34 on the chalkboard.

+ 22

Discuss what the numbers really mean.... 34 is really 30 + 4 and 22 is really 20 + 2.

Have the students tell you what they should do to add. Some will forget that they always should begin with the units. Discuss why this is important. (There may be 10 or more units, and then regrouping must take place. Don't do re-grouping questions today......)

Throughout the lesson, frequently stop and ask, "Where do we begin to add? Which column do we add first?"

Give out the place value charts. The groups of 3 go to a new station. Count and bind the sticks at that station. Now use the sticks to do several addition questions without re-grouping: 42 + 54 = 26 + 15 = etc. The students make the numbers with the sticks on the place value chart. Now do some with no grouping in the units column, but with an answer over 100. 64 + 82 = 56 + 71 = etc. Show the problems on the place value charts with the sticks.

<u>**Practice</u>** - 8.2 Answer the addition and multiplication questions. Divide the shapes and shade in to show the fraction. Make sure the 'pieces' are the same size.</u>

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Discuss place value and the concepts of addition with re-grouping. Where do we begin to add? Why?

Week 8 - Day 3 - Fractions

<u>Oral Review</u> - Discuss the 10 strategies when adding and subtracting. Review the doubles to 18. Count by 3s to 30 and 4s to 40. Make several multiplication groupings. Discuss writing numbers between 100 and 400. Tell time and write it in digital form.

<u>Vocabulary Words</u> - Teach the word 'units'. A 'unit' is one of whatever we are counting. Then teach tens, hundreds and thousands showing the positions. Learn to spell the words.

<u>Daily Problem</u> - Josh's bedtime is 8:30. Last night his family went to visit friends and they were late getting home. Josh was one hour and 20 minutes late going to bed. When did he go to bed?

<u>Lesson</u> - Review and discuss how fractions are written and what the numbers mean. For example, 3/4 means we are talking about 3 of the 4 pieces.

Again, give away pieces of imaginary food that is rectangular or circular, but this time give the students a choice. Ask, 'Would you rather have 1/4 of a chocolate bar or 1/8? Draw both to see which is more. Do these: 1/4 or 1/3? 3/5 or 1/3? 3/10 or 3/5? Do lots of examples, drawing each to prove the answer. Have the students tell you why one fraction is larger than another.

Now give each student 8 counters. Have them show 1/2 with the counters. (2 groups of 4) Can they show 1/4 of the counters? How many groups will they make? How many counters are there in 1/4? Show 3/4, 1/8, 3/8, 7/8, etc. The concept is the same as solid shapes, but seems more confusing! Have students who have a problem with this put the counters in one group touching one another, and then pretend to take a knife and cut through the counters to make the groups.

What number in the fraction tells you how many groups you must make?

Put 2 counters aside and do the same with 6. Which is more - 1/2 or 1/3? Have the students explain the concept.

Do this with 12 counters if time permits.

<u>Practice</u> - 8.3 Draw shapes and shade in the fraction parts. Put in the 'less than' and 'more than' signs in the boxes. Tell time, and put the hands on the clocks. Practice multiplication concepts.

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Briefly review the fraction concepts and repeat 3/5 is '3 of the 5 pieces'.

Week 8 - Day 4 - numbers to 500,

multiplication \times 2 and \times 3

<u>Oral Review</u> - Discuss the 10 strategies when adding and subtracting. Review the doubles to 18. Count by 3s to 30 and 4s to 40. Tell time and write it in digital form. Fractions - e.g. - 4/5 is 4 of the 5 pieces.

<u>Vocabulary Words</u> - Teach the word 'units'. A 'unit' is one of whatever we are counting. Then teach tens, hundreds and thousands showing the positions. Learn to spell the words.

<u>Daily Problem</u> - Megan, Katie and Nina were planning the class Halloween party. Each girl baked cookies. Megan baked 24 chocolate chip cookies, Katie baked 32 peanut butter cookies and Nina baked 40 sugar cookies. How many cookies were there in all? How many more did Nina bake than Megan? Make up more questions about the cookies!

Lesson - Count from 400 to 500. Read and write some of the trickier numbers.

Count by 2 to 20 and 3 to 30.

Print the 'times tables' for 2 and 3.

02 = 0	02 = 0	End each with the 10 10 \times 2 and the 10 \times 3.
0 x 2 = 0	$0 \times 3 = 0$	Discuss the word 'table' ('data arranaed in an
1 x 2 = 2	1 x 3 = 3	organized and usually rectangular form' - or a list in
2 x 2 = 4	2 x 3 = 6	organized and asadily rectangular form - or a list m
$3 \times 2 = 6$ etc	$3 \times 3 = 9$ etc	order).
		We learn skip counting to help us with
		multiplication. Discuss inverse operations: 2 x 3

and 3×2 have different groupings (2 3s and 3 2s) but take the same number of counters to form and you get the same answer.

Talk about the questions that are easy to remember. All the x 2 should be easy, especially if turned to put the '2' first..... 2 x 6 or 2 6s is easier than 6 2s, for example. Some of the x 3 questions should be easy, and some are difficult. In Grade 3 we try to memorize the times tables, so which questions must the students simply remember and memorize? How will the skip counting help?

Give out the sheet with the x 2 and x 3 small flashcards. The students cut them apart and go in pairs and quiz one another. You can leave the tables on the chalkboard for the students who have difficulty.

<u>Practice</u> - 8.4 - Print the numbers 400 to 500. Do the multiplication questions.

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Go quickly through the 2 and 3 times tables. Read and write some numbers between 400 and 500.

Week 8 - Day 5 - Addition to 18, place value and addition of 2 digit numbers (no re-grouping), fractions,

numbers to 500, multiplication \times 2 and \times 3

<u>Oral Review</u> - Discuss the 10 strategies when adding and subtracting. Review the doubles to 18. Count by 3s to 30 and 4s to 40. Make several multiplication groupings. Discuss writing numbers between 100 and 500. Tell time and write it in digital form. Fractions - e.g. - 4/5 is 4 of the 5 pieces.

<u>Vocabulary Words</u> - Teach the word 'units'. A 'unit' is one of whatever we are counting. Then teach tens, hundreds and thousands showing the positions. Learn to spell the words.

<u>Daily Problem</u> - Your teacher brought in a big rectangular cake for the class party. She cut through the cake 4 times each way. How many pieces were there? She gave out the same number of pieces to each student. How many pieces did each student receive? Is there any cake left over? Can you make up more problems?

<u>Speed Sheet #8</u> - Do Speed Sheet 8. Give the students two minutes (as described in the introduction). Then they circle the last question finished and then complete the sheet. Score as described in the introduction.

<u>Review #8</u> - Give the students time for most to complete the sheet. Mark and score.

- 4 points for counting 2 points for each row.
- 12 points for the 2 digit addition 1 mark each.
- 6 points for the fractions 1 for each drawing, 1 for each sign
- 16 points for the multiplication
- 12 points 4 points for each clock.

Total = 50 points x2 for percent score

<u>Discussion / Closure</u> - Are the students doing the addition speed sheet quickly? Why is it necessary to add quickly? Talk about ways they can improve their speed.

Was any part of the test sheet difficult? Which parts are easy?

Notes:

8.1	Addit	ion to 3	18	Name #			_
2 <u>+8</u>	3 <u>+7</u>	9 <u>+3</u>	8 <u>+8</u>	6 <u>+9</u>	++ 9 <u>+6</u>	9 <u>+8</u>	5 <u>+8</u>
3 <u>+6</u>	5 <u>+9</u>	8 +9	8 <u>+7</u>	7 <u>+9</u>	8 <u>+4</u>	6 <u>+4</u>	6 <u>+5</u>
9 +4	5 <u>+6</u>	4 <u>+7</u>	6 <u>+8</u>	4 <u>+5</u>	8 <u>+2</u>	2 <u>+8</u>	5 <u>+8</u>
8 +2	9 <u>+5</u>	9 <u>+2</u>	7 <u>+8</u>	4 <u>+8</u>	5 + <u>7</u>	9 <u>+9</u>	3 <u>+9</u>
8 + 6	b =		6 + 3 =		5 +	- 3 =	
8 + 3 6 + 8	3 = 3 =		3 + 8 = 7 + 2 =		4 + 7 +	· 9 = · 6 =	
4 + 6	b =		8 + 5 =		2 +	- 6 =	
4 + 9 7 + 5) = 5 =		6 + 4 = 8 + 7 =		5 + 6 +	• 4 = • 7 =	

Hundreds	Tens	Units

8.2 Ac	dition		Name My Ni	umber is #		
24	16	87	54	75	82	
<u>+51</u>	<u>+63</u>	<u>+41</u>	<u>+14</u>	+13	+47	
93 <u>+52</u>	56 <u>+32</u>	60 <u>+69</u>	52 <u>+55</u>	88 <u>+70</u>	53 <u>+41</u>	
96 <u>+23</u>	45 <u>+34</u>	8 <u>+91</u>	63 <u>+ 5</u>	98 <u>+41</u>	43 <u>+25</u>	
9 × 1 =		3 × 4 =		4 × 3 =		
8 × 3 =		5 × 0 =		9 x 2 =		
0 × 14 =		6 x 3 =		4 x 2 =		
7 x 2 =		3 x 2 =		0 x 7 =		
4 x 5 =		7 x 3 =		9 × 3 =		
Show the fract	ion:					
$\frac{1}{3}$		<u>3</u> 8		<u>3</u> 4		

8.3 Fractions

Name	
My Number is #	_

Draw to show the fractions and put the < and > signs between.



Print the hands on the clocks.



8 x 2 =	5 x 3 =	4 x 2 =
6 x 3 =	0 x 2 =	1 x 3 =
10 x 2 =	9 x 2 =	7 x 2 =
10 x 3 =	7 x 3 =	9 x 3 =
3 x 3 =	0 x 3 =	5 x 2 =
2 x 3 =	8 x 3 =	2 x 2 =
6 x 2 =	3 x 2 =	4 x 3 =

8.4 Counting, fractions

Name _____ My Number is #_____

Count from 400 to 500.



5 x 2 =	3 × 3 =	3 x 2 =
4 × 3 =	7 × 3 =	1 × 3 =
9 × 3 =	0 x 2 =	9 x 2 =
7 x 2 =	10 × 3 =	8 × 3 =
6 x 3 =	1 × 5 =	1 x 2 =
2 x 2 =	4 × 2 =	0 x 3 =
8 x 2 =	5 × 3 =	6 x 2 =
2 x 3 =	10 x 2 =	13 × 0 =

Spe	ed Sheet	t #8	Name My Numb	er is #		cor /m	rect inute
3	5	8	6	6	8	8	7
<u>+6</u>	<u>+9</u>	<u>+7</u>	<u>+4</u>	<u>+5</u>	<u>+9</u>	<u>+4</u>	<u>+9</u>
2	3	8	9	5	9	9	6
<u>+8</u>	<u>+7</u>	<u>+8</u>	<u>+8</u>	<u>+8</u>	<u>+3</u>	<u>+6</u>	<u>+9</u>
8	9	7	9	3	9	5	4
<u>+2</u>	<u>+5</u>	<u>+8</u>	<u>+9</u>	<u>+9</u>	<u>+2</u>	+ <u>7</u>	<u>+8</u>
9	5	6	2	5	4	8	4
<u>+4</u>	<u>+6</u>	<u>+8</u>	<u>+8</u>	<u>+8</u>	<u>+7</u>	<u>+2</u>	<u>+5</u>
7 + 3 + 6 +	2 = 8 = 3 =	-	6 + 8 = 8 + 3 = 8 + 6 =	= =	7 4 5	+ 6 = + 9 = + 3 =	
8 + 8 + 6 +	5 = 7 = 4 =	-	4 + 6 = 7 + 5 = 4 + 9 =	:	2 6 5	+ 6 = + 7 = + 4 =	

Г

Review #8

Name _____ My Number is #_____

Count by 3s	and 4s:				
3,,	//	/	_///		
4,,	//	/	_//	//	
94	15	97	74	85	82
<u>+52</u>	<u>+72</u>	+42	+64	<u>+12</u>	<u>+67</u>
85	66	68	90	38	57
<u>+42</u>	<u>+72</u>	<u>+71</u>	<u>+54</u>	<u>+71</u>	+61

Draw and shade the fractions and put the > or < sign between.



Week 24 - Adding columns, multiplication and division,

money to \$100, addition and subtraction

Oral Review - Review 3 digit addition and subtraction

with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding

Day 1 - Adding columns

to the nearest 10 and 100.

Ed Contraction

<u>Vocabulary Words</u> - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: 1 || ||| ||| ||| ||| Each mark represents one item being collected.

<u>Daily Problem</u> - Mom was making a patio in the garden. The stones she used were 30 cm. square. She put 6 stones in a row and made 8 rows. How many stones did she use? Can you find out how big the patio was when she was finished?

Lesson - Print a column of 2 digit numbers on the chalkboard. Have	35
the ones column add to over 20. This may be the first experience of	47
addition with re-grouping and having 2 or more tens.	29

There are several skills in adding a column. First, we could simple add 33 downwards.... 5 + 7 + 9 + 3, saying 5, 12, 21, 24, but that can be difficult. Discuss this with the students. Can they think of an easier way?

If they can find a 10, that will make it easier. With this question, they could add 9 + 5, and then the (7 + 3) 10. They could say 14 + 10 = 24. They could also add 5 + 7 = 12 and 9 + 3 = 12..., 12 + 12 = 24.

Then the 4 goes in the 'ones' column and there are 2 tens to take to the tens column.

Try a number of different questions, discussing what would be the easiest way to add. Earlier this year we talked about adding in 15s: 9 + 6 and 7 + 8 Two 15s make 30. This can help to add a long difficult question.

Then add a series of 3 digit numbers, discussing the easiest way to add, and the meaning of what is happening.

Have the students make up questions for each other and solve them.

If time permits, check some answers with a calculator.

Practice - 24.1 - Do the column addition

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Talk about tricks that can help when adding columns of numbers.

Week 24 - Day 2 - Multiplication and division

<u>Oral Review</u> - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

<u>Vocabulary Words</u> - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: 1 || ||| ||| |||| #I Each mark represents one item being collected.

<u>Daily Problem</u> - Did you know there are other ways to write numbers? Have you heard about Roman Numerals? This is a very old way of showing numbers. There are symbols for 1 (I), 5 (V), 10 (X), 50 (L), 100 (C). We can only have 3 of one symbol, so what happens when you come to 4? Learn how to count this way. Where do we see these numbers?

<u>Lesson</u> - Discuss the 'tricks' - multiplying by 0 and 1, counting by 3, 4 and 6, multiplying by 9, the x 5, the doubles and the reverse of each. Discuss the ways to remember the answers. What questions are really difficult to remember? Can you think of any 'trick' to remember these answers? Do you remember the trick to do 7 x 8? Discuss the principles of division. Discuss the sign \div , and then review the other way of writing division questions.

$$5\overline{\big)}$$
 45

Write a few division questions and discuss where the answer goes (over the 5 in the 45 - the ones column). Read the question as "How many 5s in 45?"

Write out any questions that are difficult and write the 4 operations of multiplication and division (inverse operations) for each.

Call out large numbers that are answers to multiplication partners and have the students print the questions. For example, call out '35', and the students print 5 x 7 and 7 x 5. If you call out a number such as 24, there are several sets of questions that can be written.

Have the students use the multiplication flash cards and test one another.

<u>Practice</u> - 24.2 - Do the multiplication and division questions. When doing the 'long division' format, make sure the answers are in the correct column. Answer the easiest questions first. Write the more difficult ones on the back of the sheet to study later.

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Review multiplication and division.

Week 24 - Day 3 - Money to \$100

<u>Oral Review</u> - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

<u>Vocabulary Words</u> - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: | || ||| |||| ##1 Each mark represents one item being collected.

<u>Daily Problem</u> - People who work in stores must know how to give change back to customers. For example, if you were buying a toy that cost \$3.85 and handed the clerk a five dollar bill, how much money should you get back? Can you make up more questions?

Lesson - Review the coins, the coin names and the value.

We used to have a \$1.00 and a \$2.00 bill, but now we have the loonie and toonie replacing them. What are the values of the paper money you have seen? \$5 (blue), \$10 (purple), \$20 (green), \$50 (pink) and \$100 (brown).

If you had \$65.00, how could it look? It could be 50 + 10 + 5, or 20 + 20 + 20 + 5, and other ways, too. Do a number of these questions.

We count the bills the same way we count coins - the largest first and then in decreasing denomination. Draw some 'money' on the board:

\$20	\$50	\$20
\$20	\$50	\$20
•		

and count it, from largest denomination to smallest. Add \$1 and \$2 coins to this, too.

Finally, talk about adding bills plus the smaller coins, and writing the totals. Use monopoly money, if you wish, plus the coins used before.

Pretend to be buying higher priced things and having the students count out the money needed to purchase it. Are there different ways to come to the same amount? Share these.

<u>**Practice</u>** - 24.3 - Add the amounts of money putting a total. Then read the problems and draw the change.</u>

<u>Discussion / Closure</u> Answer the daily problem now or at the end of the school day. Briefly review counting money.

Week 24 - Day 4 - Addition and subtraction review

<u>Oral Review</u> - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

<u>Daily Problem</u> - You go to the books store and choose a book for \$4.60, another for \$10.25 and another for \$12.80. How much will the three books cost? You have a \$50 bill. How much change will you get?

<u>Lesson</u> - Review 3 digit addition and subtraction procedures.

Put the students in pairs and do one question in addition and then one in subtraction. The students take turns doing the questions, discussing the procedures as they work, telling what they are doing and why they are doing it. The other student checks the question on a calculator, or by doing the inverse operation.

<u>Practice</u> - 24.4 - Do the addition and subtraction page.

<u>Discussion / Closure</u> - Answer the daily problem now or at the end of the school day. Review the addition and subtraction procedures.

Week 24 - Day 5 - adding columns, multiplication and division, money to \$100, addition and subtraction

<u>Oral Review</u> - Review 3 digit addition and subtraction with re-grouping. Discuss place value to 100,000. Estimate litres, millilitres, grams, kilograms and the units of measurement. Review the strategies to multiply and divide. Talk about the words 'area' and 'perimeter'. Review rounding to the nearest 10 and 100.

<u>Vocabulary Words</u> - tally marks: printing tally marks is a way to collect data. They are usually printed in groups of 5: 1 || ||| ||| |||| #1 Each mark represents one item being collected.

<u>Daily Problem</u> - Megan went to the store to buy groceries for Mom. Mom gave her a \$20 bill to pay for the groceries. She bought milk for \$2.15, bread for \$1.95, cookies for \$3.60 and meat for \$9.25. How much did the groceries cost? Will she get some change back? How could the change look?

<u>Speed Sheet #24</u> - Do Speed Sheet 24. Give the students two minutes (as described in the introduction). Then they circle the last question finished and then complete the sheet. Score as described in the introduction. (Put the results on the multiplication graph.)

<u>**Review #24**</u> - Give the students time for most to complete the sheet. Mark and score.

- 12 points for subtraction 2 points each.
- 12 points for addition 2 points each.
- 10 points for the division 1/2 point each
- 12 points for rounding 1 point for each answer
- 4 points for the area and perimeter 2 marks each.

Total = 50 points x2 for percent score

<u>Discussion / Closure</u> - Would you like to know more about Roman Numerals? Do some tricky numbers!

Notes:

24.1 Column addition		Na	me			
				#		
74	46	67	56	49	65	
25	43	78	63	56	35	
35	54	76	75	44	79	
19	5/	39	67	36	35	
+ <u>/6</u>	+ <u>35</u>	+ <u>25</u>	+ <u>24</u>	+ <u>/1</u>	+ <u>6/</u>	
465	252	709	276	949	730	
374	655	291	48	827	986	
231	148	412	999	+684	+547	
+808	+999	+838	+ 62	<u>· • • • • •</u>	<u></u>	
6 x 6	=	3 × 9 =	9 x 4 =		7 × 3 =	
5 x 9	=	8 × 9 =	7 x 7 =		7 × 4 =	
2 x 9	=	5 x 6 =	1 × 9 =		7 x 6 =	
7 x 5	=	9 × 6 =	8 × 7 =		8 × 4 =	
9 x 5	=	4 × 9 =	9 × 5 =		6 x 7 =	
0 x 9	=	9 x 9 =	4 × 7 =		9 x 7 =	
7 × 9	=	5 x 7 =	6 x 9 =		8 × 6 =	
Uraw a par	railelogram wit	n 2 acute angles.	Draw a l	ine and ano	Ther	

Draw a parallelogram with 2 acute angles.	Draw a line and another line perpendicular to it.	

24 2	Multiplication and	division Name	
	Multiplication and	#_	
5 x 8 =	9 × 4 =	6 x 7 =	3 × 6 =
6 x 3 =	5 × 4 =	5 × 6 =	8 × 9 =
4 x 5 =	6 x 9 =	3 × 4 =	7 x 5 =
5 x 3 =	9 × 5 =	4 × 8 =	9 × 6 =
9 x 8 =	7 x 6 =	3 × 5 =	8 × 8 =
7 x 7 =	9 × 3 =	9 × 9 =	7 × 4 =
4 x 6 =	8 × 4 =	5 × 7 =	3 × 7 =
8 x 3 =	7 × 8 =	9 x 2 =	4 × 9 =
7 x 9 =	6 x 5 =	3 × 8 =	7 × 3 =
6 x 4 =	4 × 3 =	8 × 5 =	8 × 7 =
4 x 7 =	9 x 7 =	5 x 9 =	5 x 5 =
3 x 9 =	6 x 6 =	8 × 6 =	6 × 8 =
6 48	5 40	8 72 8 64	9 81
30 ÷ 5 =	18 ÷ 6 =	81 ÷ 9 =	20 ÷ 4 =
16 ÷ 2 -	12 ÷ 6 -	8 ± 2 -	42 ÷ 7 −
10 ÷ L =	12 + 0 -	14 · 0 -	72 ÷ 7 =
49 - 9 =	49÷/=	$10 \div 0 =$	20 ÷ 0 =
48 ÷ 8 =	16 ÷ 4 =	24 ÷ 3 =	12 ÷ 2 =
9÷3=	15 ÷ 3 =	25 ÷ 5 =	4 ÷ 2 =
12 ÷ 3 =	35 ÷ 5 =	24 ÷ 8 =	24 ÷ 3 =
10 ÷ 2 =	30 ÷ 5 =	18 ÷ 3 =	60 ÷ 10 =
24 ÷ 6 =	12 ÷ 4 =	16 ÷ 4 =	36 ÷ 6 =
		340	

24.3 Money

Name	
#	

How much money?



You have a toonie. You buy an ice cream cone for \$1.60. Draw the change.

You buy a book for \$3.25. Draw the money you need to pay.

You buy groceries for \$12. 49. Draw the money you need.

You have \$50. You buy clothes for \$32.20. Draw the money you have left.

24.4	Addition ar	nd subtractio	n Nam	e		
-				#		
774	689	545	468	192	115	
+206	<u>+356</u>	<u>+357</u>	<u>+673</u>	<u>+439</u>	<u>+435</u>	
407	707	070	400	247	270	
420	/3/	272	408	24/	3/9	
+000	+393	+47/	+0/4	+/47	+105	
160	227	104	167	90E	500	
+434		+568	+419	+368	+123	
<u>· 131</u>	.,				-120	
040	E0/	754	(12		700	
90U _473	-160	/ 54	002	004 _327	/83 _209	
	-109	<u>- </u>	-130	-327	-209	
202	749	420	201	504	525	
-137	-458	430 - 259	20 4 _1 4 7	50 4 -175	-267	
-157	- +30	<u>-LJJ</u>		-175	-207	
741	002	769	430	357	867	
-633	-448	-584	-255	-179	-348	
<u>-137</u> 741 <u>-633</u>	<u>-458</u> 902 <u>-448</u>	<u>-259</u> 768 <u>-584</u>	<u>-147</u> 430 <u>-255</u>	<u>-175</u> 357 <u>-179</u>	<u>-267</u> 867 <u>-348</u>	

Speed	Sheet	#24	Name My Number i	 s #	correct /minute
4 × 4	=	9 x 2	2 =	6 x 9 =	9 x 7 =
6 x 3	=	4 x 8	3 =	3 × 4 =	9 × 9 =
6 x 0	=	3 × 4	t =	8 × 2 =	5 x 7 =
2 x 3	=	0 x 8	3 =	3 × 3 =	3 x 6 =
1 x 6	=	6 x 6	5 =	2 × 7 =	6 x 4 =
8 × 4	=	6 x 7	7 =	9 × 3 =	4 × 9 =
5 × 9	=	8 × 8	3 =	3 × 3 =	5 x 2 =
5 x 0	=	9 x 6	b =	8 × 7 =	5 × 0 =
9 x 8	=	8 × 5	5 =	9 x 4 =	6 x 2 =
7 x 9	=	5 x 3	3 =	8 × 6 =	6 × 5 =
2 x 3	=	2 x 9	9 =	3 x 2 =	0 × 7 =
2 x 2	=	4 × 5	5 =	7 × 8 =	5 x 4 =
1 × 8	=	5 x 1	L =	4 x 6 =	2 × 8 =
2 x 5	=	3 x 8	3 =	5 x 6 =	7 × 4 =
1 x 7	=	7 × 5	5 =	7 × 4 =	4 × 1 =
7 x 6	=	6 × 1	L =	4 × 7 =	9 × 5 =
8 × 9	=	3 × 5	5 =	6 x 4 =	7 x 3 =
8 × 4	=	4 × 4	1 =	8 × 3 =	5 × 8 =
7 x 2	=	6 x 8	3 =	9 x 4 =	4 × 3 =
2 x 4	=	3 × 1	L =	3 x 7 =	7 x 7 =
5 × 4	=	2 x 6	5 =	3 × 9 =	4 × 2 =

Review 7	#24		۲ /	Name Ny Number	is #	
366	844	650	644	\$8.83	\$4.61	
<u>-149</u>	<u>-557</u>	<u>-267</u>	<u>-367</u>	<u>-\$4.79</u>	<u>-\$4.36</u>	
	·					
687 344	645	774	492	\$3.15 ¢4.80	\$4.68 \$2.67	
+355		475 +203	<u>+439</u>	۶۵.۵۶ <u>+\$4.33</u>	\$2.67 <u>+\$6.72</u>	
24 ÷ 6 =	2	8 ÷ 7 =	32 ÷ 4	=	81 ÷ 9 =	
45 ÷ 5 =	1	2 ÷ 3 =	30 ÷ 5 ÷	=	36 ÷ 6 =	
24 ÷ 8 =	3	0 ÷ 6 =	18 ÷ 6 :	=	28 ÷ 4 =	
16 ÷ 4 =	1	6 ÷ 2 =	42 ÷ 7 :	=	10 ÷ 2 =	
20 ÷ 4 =	4	8 ÷ 8 =	12 ÷ 2	=	27 ÷ 3 =	

Round to the nearest hundred to give an estimate, add or subtract, then find the difference.

481 + 134 = +	=	Real answer	difference
725 + 388 = +	=		
249 - 108 =	=		
697 - 587 =	=		



Write equations to show the perimeter and the area.

The perimeter: ______ = _____

The area: ______ = _____

Score	Percent

344