Math Curriculum Guide: Fourth Accelerated
Revised for 2008-2009

INTRODUCTION:

This Curriculum Guide has been newly expanded to include additional resources beyond the textbook to address the grade level Standards of Learning. The Harcourt Math Center Mega Math software which is accessible through the LCS computers provides a variety of interactive activities for exploring concepts and practicing skills. Also noted in the Curriculum Guide are sets of manipulatives that are available in each school's library for teaching math topics in a concrete manner. The combination of textbooks, manipulatives, and software resources related to the particular SOL being taught will provide a powerful learning tool for the variety of learning styles that students have. We look forward to your comments and suggestions for improvement as we work together to provide the best possible educational experience for children in the Lynchburg City Schools.

When one views a curriculum sequence like this one, it is critical that the listing not be interpreted to mean that each topic should be taught only once. Rather, the introduction of that topic should occur before or within the given six weeks, and a major focus during that time would be to address those specific SOL.

As educators, we recognize that it is unrealistic to think that these topics can be taught and mastered in a day or even a week. A sound educational approach involves weaving the math SOL throughout the school year and into other subject matter as well. To truly understand and be able to demonstrate mastery of the math SOL, students need to experience the SOL content spiraled throughout the curriculum at appropriate cognitive levels during the entire school year.

As you use this guide, periodically send your comments and suggestions for improvement to Patty West at westpl@lcsedu.net .

Thank you for all that you do for our children and for your fellow educators.

2008-2009 Accelerated Fourth Math Sequence (page 1 of 3)

1st Six Weeks SOL Objectives	Resources Textbook Chapters & *Harcourt Math Center Activities
5.3: Create and solve problems involving addition and subtraction of whole numbers	Ch. 1- Place Value and Whole Numbers *HMC/NumberGames/Tiny'sThinkTank/ B,C
*5.1: Read, write, identify and compare decimals through thousandths. Round to tenths and hundredths.	[M] Ch. 2-Place Value of Decimals HMC/FractionAction/NumberLine/M, O-R
*5.4: Sum and difference of decimals through thousandths	**Ch. 3- Add and Subtract whole numbers and decimals HMC/NumberGames/Bargains/E-I HMC/NumberGames/ThinkTank/L
5.21: Introduction to variables, variable expressions and open sentences 5.22: Writing problems to match open sentences	Ch. 4- Algebra: Use addition and subtraction HMC/IceStationExplore/Arc.Algebra/A-B, F-G
(Review 4.18) Ordered pairs in a coordinate plane	Ch. 23- Geometry and the Coordinate Plane HMC/Number Games/ArachnaGraph/G
5.11: Choose an appropriate unit of measure and then measure length	Ch. 24.1-24.3 Length HMC/StationExploration/LinearLab/A-F, H-J HMC/NumberGames/ThinkTank/ M
5.3 Practice multiplication facts	HMC/NumberGames/UpUpArray/A-D HMC/FractionAction/NumberLine/D

Notes: [M] Decimal Squares manipulatives are in your library.
*Harcourt Math Center Mega Math is on a CD that should be loaded on the computers in your school. If you can not find it please see your Technology Specialist.
** Decimals will be taught as an extension to whole numbers in this six weeks to allow more time for fractions in the fifth six weeks. However, place value, addition and subtraction of decimals will be tested on the fifth six weeks DWAP test.

2nd Six Weeks SOL Objectives	Resources
5.18: Bar graphs, line graphs, and stem and leaf plots	Ch. 6- Make Graphs HMC/CountryCountdown/WWGraph/F, I-K (Access Country Countdown as a 3rd gr. guest) HMC/NumberGames/ArachnaGraph/B-J
5.3: Problems involving addition, subtraction, and multiplication of whole numbers	Ch. 7- Multiply whole numbers HMC/NumberGames/UpUpArray/I-K HMC/NumberGames/ThinkTank/ F
5.4: Multiplication of decimals through thousandths	Ch 8 – Multiply decimals HMC/NumberGames/Bargains/J-L HMC/NumberGames/ThinkTank/R
5.20: Express the relationship in numerical and geometric patterns	Ch 12.3- Number patterns HMC/NumberGames/ThinkTank/H-K, U,V Ch. 12- Algebra: Use multiplication and division HMC/IceStationExploration/Arctic Algebra/E-G
5.21: Introduction to variables, variable expressions and open sentences	
5.22: Writing problems to match open sentences	
Preliminary work for fractions	Ch. 13- Factors and Multiples

Notes: Teachers may want to begin to review and master the division facts during this six week period.

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3rd Six Weeks SOL Objectives	Resources Textbook Chapters & Harcourt Math Center Activities
5.5: Whole number division with quotient and remainder (four digit or less by two digit or less) 5.3: Problems involving division of whole numbers	HMC/NumberGames/UpUpArray/E-G, L-T Ch. 9- Divide by 1-digit divisors Ch 10- Divide by 2-digit divisors
5.20: Express the relationship in numerical and geometric patterns	Ch. 10.1- Patterns in Division
5.6: Division of decimals through thousandths by a single digit divisor	Ch 11- Divide decimals by whole numbers HMC/NumberGames/Bargains/M-O
5.19: Find the mean, median, mode and range of a set of data	Ch. 5- Analyze Data and Graphs HMC/CountryCountdown/WWGraph/G,H (Access Country Countdown as a 3rd grade guest)
5.11: Choose an appropriate unit of measure and then measure mass	M Ch. 24.4-24.5 Mass HMC/NumberGames/ThinkTank/ O
5.3 Practice multiplication facts	HMC/IceStationExploration/Arctic Algebra/H

Notes: M A class set of balances and weights for measuring mass is in your library.
Review of mass in this six weeks period will coordinate with the science timeline.

4th Six Weeks SOL Objectives	Resources
5.15: Plane geometric figures 5.14: Classify angles and triangles as right, acute, or obtuse 5.13: Measure and draw angles and triangles 5.9: Identify diameter, radius, and chord 5.20: Numerical and geometric patterning	M Ch. 20- Geometric figures HMC/StationExploration/PolarPlanes/B,E-M Ch. 20.7- Find a Pattern
5.16: Identify, compare and analyze properties of solid geometric (3-D) figures	M Ch. 21- Classify plane and solid figures HMC/StationExploration/FrozenSolids/A-I
5.8: Determine the perimeter of a polygon and the area of a square, rectangle, and right triangle 5.9: Identify circumference 5.11: Measurement of area	Ch 25- Perimeter Ch 25.4- Circumference HMC/StationExploration/PolarPlanes/P-S Ch. 26- Area http://www.shodor.org/interactivate/activities/ShapeExplorer/
5.10: Differentiate between perimeter, area and volume	Ch 27.3- Volume: volume of solids Ch 27.4- perimeter, area and volume
5.11* Measurement of temperature	Ch 24.6 Temperature HMC/NumberGames/Tiny'sThinkTank/ P
5.3 Practice multiplication facts	HMC/StationExploration/Arctic Algebra/K

Notes: Review of temperature in this six weeks period will coordinate with the science timeline.
M A class set of Angleg Manipulatives are in your library.
M A class set of Geo-Reflector Manipulatives are in your library.
M Solid Geometric Shapes are in your library.

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5th Six Weeks SOL Objectives	Resources Textbook Chapters & Harcourt Math Center Activities
5.7: Adding and subtracting fractions and mixed numbers with denominators of 12 or less (like and unlike denominators) 5.2: Recognize, name and order fractions and their equivalent decimals.	M Ch 15- Fraction Concepts HMC/FractionAction/NumberLine/E-J, N M Ch 16- Add and Subtract Fractions HMC/FractionAction/FractionFlareUp/D-N M Ch 17- Add and Subtract Mixed Numbers HMC/NumberGames/ThinkTank/W http://www.explorelearning.com/ (Teaching with Gizmos Demo Model)
5.17: Probability of a single event	Ch. 30- Probability HMC/FractionAction/LastChance/A-G
*5.1: Read, write, identify and compare decimals through thousandths. Round to tenths and hundredths.	*Ch. 2-Place Value of Decimals HMC/FractionAction/NumberLine/M, O-R
*5.4: Sum and difference and product of decimals through thousandths	*Ch. 3- Add and Subtract whole numbers and decimals HMC/NumberGames/BuggyBargains/E-J HMC/NumberGames/Tiny'sThinkTank/L, R
5.3 Practice multiplication facts	HMC/IceStationExploration/Arctic Algebra/T

Notes: M Class sets of Fraction and Decimal Towers are in your library.
M Fraction and Decimal Squares manipulatives are in your library.
* Place value, addition and subtraction of decimals will be tested this six weeks on the DWAP test even though it was taught in the first six weeks.

6th Six Weeks SOL Objectives	Resources
5.11: Choose an appropriate unit of measure and then measure volume 5.12: Elapsed time in hours and minutes within a 24 hour period	M Ch 24.4-25.6- Customary and metric systems HMC/NumberGames/ThinkTank/D, N, Q http://www.shodor.org/interactivate/activities/ElapsedTime/
5.3 Practice multiplication facts	
REVIEW for SOL Test	
*6.1: Percents, fractions and decimals	*Ch 29- Percents

Notes: * After SOL testing you may start preparing the students for 5A by beginning percents
M A set of Customary Units for measuring liquid volume is in your library.