



# Math Curriculum Guide: Fifth 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](mailto:westpl@lcsedu.net).

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

## 2008-2009 Accelerated Fifth Grade Math Sequence (page 1 of 3)

1 <sup>st</sup> SIX WEEKS	SOL Objectives	Resources
		Textbook Chapters & *Harcourt Math Center Activities
6.7	Use estimation strategies to solve multi-step problems with whole numbers and decimals involving addition, subtraction, and multiplication	Ch 1 – Whole Number Applications *HMC/NumberGames/TTTank/ B-C,F-G,L,R
6.22	Positive exponents, and scientific notation	Ch 2- Operation Sense Ch 2.5 – exponents p.101 , 689- Scientific Notation HMC/StationExploration/ArcticAlgebra/U-W
6.4	Compare and order whole numbers and decimals	<sup>M</sup> Ch 3- Decimal Concepts HMC/FractionAction/NumberLine/M-R, V
6.8	Multi-step consumer application problem solving involving decimals.	Ch 4.1-4.2- Decimal Operations (addition, subtraction, and multiplication) HMC/NumberGames/Buggy Bargains/ E-P
6.7	Practice multiplication facts	HMC/NumberGames/UpUpArray/ A-K
NOTES: <sup>M</sup> 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.		
2 <sup>nd</sup> SIX WEEKS	SOL Objectives	Resources
6.6	Division of whole numbers	Ch. 4.3 – 4.6 Decimal division
6.6	Division of decimals	HMC/NumberGames/UpUpArray/ L-T
6.6	Create and solve division problems (key words, etc.)	HMC/NumberGames/Tiny’sThinkTank/S
6.22	Perfect squares and square roots	Ch. 11- Algebra Expressions Ch 11.3-11.4 Squares and square roots HMC/StationExploration/ArcticAlgebra/P
6.23	Solving one-step linear equations in one variable (whole number coefficients and pos. rat. solutions) use the following algebraic terms appropriately: <i>variable, coefficient, term, and equation.</i>	<sup>M</sup> Ch 12- Addition and Subtraction Equations <sup>M</sup> Ch 13- Multiplication and Division Equations HMC/IceStationExploration/ArcticAlgebra/F-K, S-T, Y-BB
6.21	Recognize/describe/extend numerical and geometric patterns, including triangular numbers, and powers of 10.	Ch 14- Patterns and Functions HMC/NumberGames/Tiny’sTTank/J-K, T-V
6.5	Identify, represent, order and compare integers	Ch 28- Number relationships HMC/FractionAction/NumberLineMine/S,T
6.7	Practice multiplication facts	HMC/FractionAction/NumberLineMine/D
NOTES: <sup>M</sup> Use the Hands-on-Equations manipulatives to develop the concepts of variable and equation.		

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<b>3<sup>rd</sup> SIX WEEKS</b>	<b>SOL Objectives</b>	<b>Resources</b>
		Textbook Chapters & Harcourt Math Center Activities
6.18	Collect/analyze/interpret data in line, bar, and stem and leaf or box and whiskers plots	Ch 5- Collect and Organize Data *Ch 6- Graph Data
6.19	– Mean, median, mode and range	HMC/NumberGames/ArachnaGraph/B-L
6.3	Common multiples, factors, LCM, GCF, prime and composite numbers, even and odd integers	HMC/IceStationExploration/Arctic Algebra/O
6.4	Compare and order whole numbers, fractions and decimals	Ch 7- Number Theory M Ch 8- Fraction Concepts
6.2	Describe/compare data using ratios	HMC/FractionAction/NumberLineMine/E-L,U HMC/FractionAction/FractionFlareUp/D-F Ch 24.1- Ratio and Proportion
6.6	Create and solve fraction problems with addition and subtraction	M Ch 9- Add and Subtract Fractions and Mixed Numbers
6.7	Use estimation to solve multi-step problems with fractions	HMC/FractionAction/FractionFlareUp/G-K HMC/NumberGames/Tiny’sThinkTank/W
6.6	Create and solve fraction problems with all four operations.	M Ch 10- Multiply and Divide Fractions and Mixed Numbers
6.7	Practice multiplication facts	HMC/FractionAction/FractionFlareUp/O-Q HMC/IceStationExploration/ArcticAlgebra/C-E
Notes: M Class sets of Fraction and Decimal Towers are in your library. * Circle graphs and box and whisker plots are not covered on the 5 <sup>th</sup> grade SOL test, and therefore may be taught during the 6 <sup>th</sup> six weeks.		
<b>4<sup>th</sup> SIX WEEKS</b>	<b>SOL Objectives</b>	<b>Resources</b>
6.13	Estimate angle measurements, and draw right, acute and obtuse angles and triangles	M Ch 15- Geometric Figures HMC/IceStationExploration/Polar Planes/B
6.14	Identify/classify/describe plane figures (similarities and differences)	M Ch 16- Plane Figures
6.12	Solve problems involving circumference and/or area of a circle; derive approximations for pi ( $\pi$ )	HMC/IceStationExploration/Polar Planes/D-G
6.15	Congruence of segments, angles, and polygons	M Ch 17 – Congruence and Similarity HMC/IceStationExploration/Polar Planes/H-I
6.16	Construct a perpendicular bisector of a line segment and an angle bisector	Ch 18- Geometry and Motion
6.11	Differentiate between and determine area and perimeter of polygons of four or fewer sides	Ch 20- Length and Perimeter Ch 21.1-.2- Area of Plane Figures (not circles) HMC/IceStationExploration/Polar Planes/P-S
6.17	Sketch, construct models of, and classify 3-dimensional geometric solids	M Ch 22- Solid Figures HMC/StationExploration/Frozen Solids/A-I
		*Ch 30.1 and 30.5- Graph Relationships HMC/IceStationExploration/Polar Planes/J-M
6.7	Practice multiplication facts	HMC/IceStationExploration/ArcticAlgebra/H-K
Notes: * Review co-ordinate graphing (SOL 4.18) and transformations (SOL 5.15) for the SOL test. M A class set of Anglegs Manipulatives are in your library. M A class set of Geo-Reflector Manipulatives are in your library. M Solid Geometric Shapes with Nets are in your library.		

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5 <sup>th</sup> SIX WEEKS	SOL Objectives	Resources
		Textbook Chapters & Harcourt Math Center Activities
6.9 Compare/convert units of measure for length, weight/mass, liquid volume, area		<sup>M</sup> Ch 19 – Units of Measure HMC/StationExploration/LinearLab/A-J HMC/NumberGames/Tiny’sThinkTank/M-Q
6.10 Estimate and determine units of measure(standard and non-standard)		
6.12 Create and solve problems involving the circumference and area of circles**		Ch 21.3-21.4- Areas of Plane Figures (circles)
6.20 Determine and interpret the probability of an event given a sample space; Make a sample space using lists, charts, picture or tree diagram		Ch 26 – Probability of Simple Events Ch 27- Probability and Compound Events HMC/FractionAction/LastChance/A-L
6.7 Practice multiplication facts		HMC/IceStationExploration/ArcticAlgebra/T
NOTES: <sup>M</sup> A class set of balances and weights for measuring mass is in your library. <sup>M</sup> A set of Customary Units for measuring liquid volume is in your library. Elapsed time may be reviewed here or in the last six weeks before the SOL test. Related Harcourt Mega Math activity is: HMC/Number Games/Tiny s Think Tank/D **SOL 6.12 has been kept in the 5 <sup>th</sup> six weeks so that it coincides with pi-day (Π) on March 14 <sup>th</sup> (3.14). Activities for π-day are available in the resource folder.		
6 <sup>th</sup> SIX WEEKS	SOL Objectives	Resources
6.7 Practice multiplication facts		
<b>Study for SOL Test</b>		
6.2 Describe/compare data using ratios		Ch 24- Ratio and Proportion
6.1 Identify percents and equate percents to fractions and decimals.		Ch 25 – Percent and Change Ch 25.4 Constructing Circle graphs HMC/ Number Games/ Buggy Bargains/Q-T
6.8 Consumer application problems solving involving percents		
6.18 Compare/analyze/interpret data in circle graphs		
NOTES: Ch 29- Operations with Integers is a seventh grade SOL. The activities may be used as an extension for those students who need a challenge.		