

**Knox County Schools Mathematics Curriculum**  
**Unit 1: Whole Numbers, Decimals, and Algebra**

**Adv. Math 5th Grade Planning Guide**  
**Time: About 6 weeks**

<b>Knox County Key</b>	<b>Knox County Performance Objectives/ <i>State Assessed Performance Indicators</i></b>	<b>State Blueprint Key/SPI #</b>	<b>Lessons</b>	<b>Text Pages</b>
A	<b>1. Read/write/identify place value for numbers billions through millionths</b> <i>Read and write numbers from millions to thousandths; identify the place value of a given digit from millions to thousandths; identify the place value of a given digit</i>	A 5.1.1, 5.1.5, 6.1.1	1.1	2, 4-5
A	<b>2. Write numbers in expanded form with and without exponents</b> <i>Represent whole numbers and 2- place decimals in expanded form; represent numbers in a variety of models</i>	A 5.1.3, 6.1.3	1.2	6-7
A	<b>3. Compare and order a set of numbers; connect numbers to locations on a number line</b> <i>Represent, compare, order a set of numbers; connect whole numbers and decimals to locations on a number line</i>	A 5.1.6, 6.1.4, 6.1.5	1.3	8-9
A	<b>4. Estimate reasonableness in performing the four basic operations</b> <i>Use estimation to determine a reasonable solution to a whole number computation; use estimation to select a reasonable answer to a computation involving whole numbers, fractions, and/or decimals</i>	A 5.1.7, 6.1.8	1.4, 2.1	10-13, 32-33
A	<b>5. Identify and extend numerical patterns</b> <i>Extend numerical patterns; extend geometric and numerical patterns</i>	A 5.2.1, 6.2.1	1.5, 13.2	14-17, 324-325
A	<b>6. Add and subtract whole numbers and decimals</b> <i>Add, subtract, multiply, and divide whole numbers (multipliers and divisors no more than 2-digits); compute efficiently and accurately with whole numbers, fractions, and decimals; add/subtract decimals</i>	A 5.1.4, 6.1.9 5.1.8	1.6	18-19
A	<b>7. Evaluate expressions, using addition properties.</b>		1.8	22-24
A	<b>8. Multiply and divide whole numbers</b> <i>Add, subtract, and multiply decimals; compute efficiently and accurately with whole numbers and decimals; multiply and divide whole numbers</i>	A 5.1.4	2.2, 2.3, 2.4	30-41, 46-47
A	<b>9. Evaluate numerical expressions using order of operations</b> <i>Apply order of operations when computing with whole numbers; evaluate algebraic expressions for a given value of the variable</i>	A 6.1.7, 6.2.7	2.6, 2.7	46-49

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A	<b>10. Select/solve/write an equation which represents a mathematical relationship</b> <i>Select an equation that represents a mathematical relationship; find missing addends or factors represented as variables in simple equations</i>	A 5.2.4, 5.2.7, 6.2.6, 6.2.4	2.8	
A	<b>11. Solve one and two step real-world problems involving addition, subtraction, multiplication, and division of whole numbers and decimals.</b> <i>Solve one or two step real-world problems involving addition, subtraction, and/or multiplication of whole numbers and decimals; solve one step real-world problems involving whole numbers and decimals; connect open sentences to real-world problems</i>	A 5.1.9, 6.1.2, 5.2.4	2.5	25-27, 42-45, 76-77, 82-83
A	<b>12. Identify prime and composite numbers; find the prime factorization of a composite number</b> <i>Identify prime and composite numbers up to 50</i>	A 6.1.6	3.2, 3.3	56-65
A	<b>13. Find the greatest common factor and least common multiple of 2 or more numbers</b> <i>Compute efficiently and accurately with fractions</i>	A 6.1.9	3.4, 3.5	66-71, 74-75, 78-79

<p><b>Essential Vocabulary;</b>  Refer to Houghton Mifflin, <i>Planning the Lesson</i> for vocabulary</p> <p><b>Writing Prompts:</b>  Refer to <i>Keeping a Journal</i> and <b>Writing Prompts</b> in the <i>Quick Check Options</i></p>	<p><b>Enrichment Activities:</b>  Find the value of numbers in Base Two (vice versa) p. 81</p>
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<p><b>State Accomplishments</b></p> <ul style="list-style-type: none"> <li>• <i>Order and compare numbers using a variety of models (e.g., number lines, base ten blocks, Venn diagrams, hundreds board). D</i></li> <li>• <i>Use commutative, associative, and identity properties. M</i></li> </ul> <p><b>Literature Resources:</b></p> <ul style="list-style-type: none"> <li>• <u>The Adventures of Penrose the Mathematical Cat</u> by Theoni Pappas</li> <li>• <u>Cool Math</u> by Christy Maganzini</li> <li>• <u>If You Made a Million</u> by David M. Schwartz</li> <li>• <u>On Beyond a Million: An Amazing Math Journey</u> by David M. Schwartz</li> </ul> <p><b>Commercial Materials/manipulatives:</b>  <u>Middle School Mathematician</u>, Incentive Publications  <u>Computation and Number Sense</u>, Instructional Fair</p>	<p><b>Technology:</b></p> <ul style="list-style-type: none"> <li>• Use fraction functions on TI-15/TI-73 calculators</li> <li>• <u>Internet Activities for Math</u>, Teacher Created Materials, Inc.</li> <li>• National Library of Virtual Manipulatives  matti.usu.edu/nlvm/nav/vlibrary.html</li> </ul> <p><b>Text:</b>  <u>Houghton Mifflin Math Tennessee</u>, Grade 6</p> <p><b>Assessment:</b>  Knox County Schools Mathematics Unit 1 Test</p>
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