

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Math Unit 1 – Number Operations: Integers & Decimals	7	1 & 2	45 Days
<b>TEKS/Student Expectations</b>		<b>Examples/Specifications:</b>	
<p><b>7.1A; 7.1C:</b> The student represents and uses numbers in a variety of equivalent forms. The student is expected to (A) compare and order integers and positive rational numbers; (C) represent squares and square roots using geometric models.</p> <p><b>7.2A; 7.2C; 7.2E; 7.2F:</b> The student adds, subtracts, multiplies, or divides to solve problems and justify solutions. The student is (A) represent multiplication and division situations involving fractions and decimals with models, including concrete objects, pictures, words, and numbers (C) use models, such as concrete objects, pictorial models, and number lines, to add, subtract, multiply, and divide integers and connect the actions to algorithms (E) expected to simplify numerical expressions involving order of operations and exponents (F) select and use appropriate operations to solve problems and justify the selections</p> <p><b>7.4B; 7.4C:</b> The student represents a relationship in numerical, geometric, verbal, and symbolic form. The student is expected to (B) graph data to demonstrate relationships in familiar concepts such as conversions, perimeter, area, circumference, volume, and scaling; and (C) use words and symbols to describe the relationship between the terms in an arithmetic sequence (with a constant rate of change) and their positions in the sequence.</p> <p><b>7.5A; 7.5B:</b> The student uses equations to solve problems. The student is expected to (A) use concrete and pictorial models to solve equations and use symbols to record the actions; and (B) formulate problem situations when given a simple equation and formulate an equation when given a problem situation.</p> <p><b>7.7A:</b> The student uses coordinate geometry to describe location on a plane. The student is expected to locate and name points on a coordinate plane using ordered pairs of integers</p> <p><b>7.9A:</b> The student solves application problems involving estimation and measurement. The student is expected to estimate measurements and solve application problems involving length (including perimeter and circumference) and area of polygons and other shapes</p> <p><b>7.13B; 7.13C; 7.13D:</b> The student applies Grade 7 mathematics to solve problems connected to everyday experiences, investigations in other</p>			

disciplines, and activities in and outside of school. The student is expected to (B) use a problem-solving model that incorporates understanding the problem, making a plan, carrying out the plan, and evaluating the solution for reasonableness; (C) select or develop an appropriate problem-solving strategy from a variety of different types, including drawing a picture, looking for a pattern, systematic guessing and checking, acting it out, making a table, working a simpler problem, or working backwards to solve a problem; and (D) select tools such as real objects, manipulatives, paper/pencil, and technology or techniques such as mental math, estimation, and number sense to solve problems.

**7.15B:** The student uses logical reasoning to make conjectures and verify conclusions. The student is expected to validate his/her conclusions using mathematical properties and relationships.

**Language of Instruction:**

**Instructional Resources/Textbook Correlations:**

- Algebra
- Algebraic expression
- Arithmetic sequence
- Base
- Coefficient
- Defining the variable
- Domain
- Equation
- Equivalent expression
- Evaluate
- Exponent
- Factors
- Function
- Function rule
- Numerical expression

- Absolute value
- Additive inverse
- Coordinate plane
- Graph
- Integer
- Negative integer
- Opposites
- Ordered pair
- Origin
- Positive integer
- Quadrant
- x- & y-axis
- x- & y-coordinate
- compatible numbers

Glencoe: Middle School Math Course 2  
 Chapters 1 (Except Extend 1-10), 2 (combine 2-1 & 2-2; 2-7 & 2-8), 3 (except Explore 3-2, Explore 3-4, 3-6 & 3-7), & 4  
 Glencoe Teaching Math with Manipulatives  
 Glencoe MathScape Course 2 (ch 1: pp 184, 188-189; ch 2: pp 97 & 103; ch 3: pp 236-241; ch 4: pp 185 & 210-211)  
 Glencoe Interactive Classroom PowerPoint  
 Rhonda Bailey's Mathematics by Design resources  
 Charles A. Dana Center Clarifying Lessons & Activities  
 Marilyn Burns Thinking Mathematically  
 Glencoe Cross-Curricular Project: The Wide World of Soccer (Math/Language Arts/Science)  
 Manipulatives: Algebra Balance, algebra tiles, floor number line, Order of Operations Skit, measuring tapes, colored chips

**Weblinks/Other Resources:**

<ul style="list-style-type: none"> <li>• Order of operations</li> <li>• Perfect square</li> <li>• Powers</li> <li>• Radical sign</li> <li>• Range</li> <li>• Sequence</li> <li>• Solution</li> <li>• Square</li> <li>• Square root</li> <li>• Term</li> <li>• Variable</li> </ul>	<ul style="list-style-type: none"> <li>• formula</li> <li>• inverse operations</li> <li>• linear equation</li> <li>• two-step equation</li> <li>• work backward strategy</li> </ul>	<p>Dinah Zike’s Foldables  Hotmath.com homework help  Big Jim’s Tangy Tunes: Multiplying Decimals, Perimeter, Problem-Solving Strategies, Area  Middle School Math with Pizzazz!  Locally-Developed Materials  REAL Careers Video Series  www.thefutureschannel.com  eInstruction clicker system  Webccat  Step Up To TAKS (Gail Fuller)  Tx.msmath2.com resources: Vocabulary Puzzlemaker, Letters Home (Sp &amp; Eng), virtual tutor, real-life careers website links, games, diagnostic/placement tests, chapter readiness quizzes, chapter tests, Animations for various concepts, interactive vocabulary review  <i>One Grain of Rice</i> by Demi  Bingo Games  Target Vocabulary Pictures</p>
<b>Evaluation/External Assessment/Local Assessment:</b>		<b>Best Instruction Timeline:</b>
Texas Education Agency/Local Benchmark		Days 1-14: Chapter 1 Days 15-25: Chapter 2 Days 26-33: Chapter 3 Days 34-45: Chapter 4