

## Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Math/Number Patterns, Proportion and Algebraic thinking	6	2nd	28 days
TEKS/Student Expectations		Examples/Specifications:	
<p><b>(6.2) Number, operation, and quantitative reasoning.</b> The student adds, subtracts, multiplies, and divides to solve problems and justify solutions.</p> <p>The student is expected to:</p> <p>(A) model addition and subtraction situations involving fractions with objects, pictures, words, and numbers;</p> <p style="padding-left: 40px;">(B) use addition and subtraction to solve problems involving fractions and decimals;</p> <p style="padding-left: 40px;">C) use multiplication and division of whole numbers to solve problems including situations involving equivalent ratios and rates;</p> <p>D) estimate and round to approximate reasonable results and to solve problems where exact answers are not required; and</p> <p style="padding-left: 40px;">(E) use order of operations to simplify whole number expressions (without exponents) in problem solving situations.</p> <p><b>6.4) Patterns, relationships, and algebraic thinking.</b> The student uses letters as variables in mathematical expressions to describe how one quantity changes when a related quantity changes.</p> <p>The student is expected to:</p> <p style="padding-left: 40px;">(A) use tables and symbols to represent and describe proportional and other relationships such as those involving conversions, arithmetic sequences (with a constant rate of change), perimeter and area; and</p>		<p>.</p> <p>Fractions w/objects and numbers 5-5</p> <p>Fractions 5-2</p> <p>Multiplication &amp; division to solve problems 5-2</p> <p>Use tables and symbols to represent and describe proportional relationships</p>	

B) use tables of data to generate formulas representing relationships involving perimeter, area, volume of a rectangular prism, etc.

(6.8) **Measurement.** The student solves application problems involving estimation and measurement of length, area, time, temperature, volume, weight, and angles.

The student is expected to:

B) select and use appropriate units, tools, or formulas to measure and to solve problems involving length (including perimeter), area, time, temperature, volume, and weight;

6.11) **Underlying processes and mathematical tools.** The student applies Grade 6 mathematics to solve problems connected to everyday experiences, investigations in other 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.

(6.12) **Underlying processes and mathematical tools.** The student communicates about Grade 6 mathematics through informal and mathematical language, representations, and models.

The student is expected to:

(A) communicate mathematical ideas using language, efficient tools, appropriate units, and graphical, numerical, physical, or algebraic

Formulas for area

Guess and check 1-7  
Act out 5-3

Mental math

<p style="text-align: center;">mathematical models; and</p> <p>(6.13) <b>Underlying processes and mathematical tools.</b> The student uses logical reasoning to make conjectures and verify conclusions.</p> <p>The student is expected to:</p> <p style="padding-left: 40px;">(A) make conjectures from patterns or sets of examples and nonexamples; and</p> <p style="padding-left: 40px;">(B) validate his/her conclusions using mathematical properties and relationships</p>	<p style="text-align: center;">Make conjectures from patterns</p>
<p><b>Language of Instruction:</b></p>	<p><b>Instructional Resources/Textbook Correlations:</b></p>
<p>Chapter 1 Order of operations Variables Expressions/algebraic Functions Equations Area Algebra Algebraic expression</p> <p style="padding-left: 100px;">Chapter 5 Like fraction Unlike fraction</p>	<p>Glencoe Course 1 Chapter 1-1, 1-3/1-9 Chapter 5,</p>
	<p><b>Weblinks/Other Resources:</b></p>

<p>Base  Composite number  Cubed  Equal sign  Evaluate  Exponent  Factor  Formula  Function table  Numerical Expression  Power  Prime factorization  Prime number  Solution  Solve  Squared</p>	<p>Practice worksheets  Study guide and intervention worksheet  Cuisenaire rods  Fraction manipulatives  Step/slide  Fraction circles  Marilyn Burns  Foldables  Annos Game- Marilyn Burns</p>
<p><b>Evaluation/External Assessment/Local Assessment:</b></p>	<p><b>Best Instruction Timeline:</b></p>
<p>Chapter quizzes  Chapter tests  Fraction project</p>	<p>Chapter 1—12 days  Chapter 5—16 days</p>