

Math 6, 3rd Edition—Lesson Plan Overview

Chapter 1: Add & Subtract			
Lesson	Topic	Lesson Objectives	Chapter Materials
1	Whole Number Place Value	<ul style="list-style-type: none"> • Demonstrate an understanding of place value • Express numbers in standard form, word form, expanded form, and expanded form with multiplication • Identify the value of the digits in a number • Compare numbers using $>$, $<$, or $=$ • Round numbers to the place of greatest value or to a given place 	<p>Teaching Visuals (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Chart 1: Roman Numerals <p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Pocket Chart Kit • Decimal Place Value Pocket Chart Kit • Place Value Kit • Money Kit • Number Line • Thermometer and Red Strip • Roman Numeral Clock <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Decimal Place Value Pocket Chart Kit • Money Kit (optional) • Number Line <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Decimal Number Lines (page IA1) • Part-Whole Models (page IA2) • Problem-Solving Plan (page IA3) • Positive & Negative Number Line (page IA4) • Roman Numerals (page IA5) • Roman Numeral Sequences (page IA6) for each student • Number Patterns (page IA7) • Patterns (page IA8) • Patterns (page IA8) for each student • Cumulative Review Answer Sheet (page IA9) for each student <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 1–3 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • An apple • A small sharp knife • A Bible • An overhead calculator • A calculator for each student (optional) <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
2	Add Whole Numbers	<ul style="list-style-type: none"> • Apply addition strategies for mental math • Add whole numbers • Estimate the sum by rounding or using front-end estimation • Solve addition word problems 	
3	Subtract Whole Numbers	<ul style="list-style-type: none"> • Apply the Zero Principle of Subtraction • Subtract whole numbers • Estimate the difference by rounding or using front-end estimation • Solve subtraction word problems • Check a subtraction problem, using addition 	
4	Decimal Place Value	<ul style="list-style-type: none"> • Demonstrate an understanding of decimal place value • Express decimals in standard form, word form, fraction form, expanded form, and expanded form with multiplication • Identify the value of the digits in a number • Compare and order decimals • Round decimals to the place of greatest value or to a given place 	
5	Add & Subtract Decimals	<ul style="list-style-type: none"> • Apply addition properties to decimals: Commutative Property, Identity Property, and Associative Property • Add and subtract decimals • Estimate sums and differences • Check a subtraction problem, using addition 	
6	Solving Problems	<ul style="list-style-type: none"> • Demonstrate an understanding of the inverse relationship between addition and subtraction • Use a part-whole model to solve addition and subtraction word problems • Write an equation for a word problem • Solve multi-step word problems 	
7	Positive & Negative Numbers	<ul style="list-style-type: none"> • Compare and order positive and negative numbers • Identify the number that is 1 more or 1 less • Plot positive and negative numbers on a number line • Add positive and negative numbers using a number line 	
8	Roman Numerals	<ul style="list-style-type: none"> • Read and write Roman numerals • Complete a sequence of Roman numerals 	
9	Patterns	<ul style="list-style-type: none"> • Use logic to identify number patterns • Use a pattern to solve a problem 	
10	Chapter 1 Review	<ul style="list-style-type: none"> • Review 	
11	Chapter 1 Test Grade 5 Review	<ul style="list-style-type: none"> • Add, subtract, multiply, and divide whole numbers • Solve equations with variables • Determine the perimeter and the area of polygons • Add decimals • Identify the mathematical expression for a word phrase • Identify the fraction represented by a picture or a number line • Measure to the nearest inch or half inch • Identify the standard form of a whole number or a decimal written in expanded form 	

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Chapter 2: Multiply by a Whole Number			
Lesson	Topic	Lesson Objectives	Chapter Materials
12	Multiplication	<ul style="list-style-type: none"> • Demonstrate an understanding of multiplication and the terms <i>factor</i>, <i>product</i>, and <i>multiple</i> • Write a mathematical equation for a word phrase • Solve multiplication equations with a multiplication dot, parentheses, or variables • Identify prime and composite numbers • Identify the Greatest Common Factor (GCF) and the Least Common Multiple (LCM) of a pair of numbers • Apply properties of multiplication to numbers and variables: Commutative Property, Associative Property, Identity Property, and Zero Property 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Kit • Money Kit <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Kit • Money Kit <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Sieve of Eratosthenes (page IA10) • Sieve of Eratosthenes (page IA10) for each student • Apply Properties (page IA11) • Powers of 10 (page IA12) • Graph Paper (page IA13) • Graph Paper (page IA13) for each student • Perfect Squares & Square Roots (page IA14) • Perfect Squares & Square Roots (page IA14) for each student • Pictures of Multiplication (page IA15)
13	Multiples of 10	<ul style="list-style-type: none"> • Multiply multiples of 10 • Apply the Commutative and Associative Properties of Multiplication to multiply factors that are multiples of 10 • Analyze patterns for using mental math to multiply factors that are multiples of 10 • Apply the Distributive Property of Multiplication over Addition to multiply by multiples of 10 • Identify the applied addition or multiplication property 	<ul style="list-style-type: none"> • Perfect Squares & Square Roots (page IA14) for each student • Pictures of Multiplication (page IA15)
14	Exponents	<ul style="list-style-type: none"> • Develop an understanding of exponents • Develop an understanding of squares • Write numbers in expanded form with multiplication using exponents (powers of 10) 	<p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 4–6
15	1- & 2-Digit Multipliers	<ul style="list-style-type: none"> • Multiply a whole number by a 1- or 2-digit multiplier • Apply the Distributive Property of Multiplication over Addition • Estimate the product by rounding to the place of greatest value and by using front-end estimation • Solve a multiplication word problem 	<p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • Colored pencils: red and green for each student • A sheet of graph paper for each student • A calculator for each student (optional)
16	Multiply Decimals by a Whole Number	<ul style="list-style-type: none"> • Multiply a decimal by a 1- or 2-digit multiplier • Estimate the product by rounding to the place of greatest value • Apply the Distributive Property of Multiplication over Addition • Solve decimal word problems, including money problems • Solve a multi-step word problem • Multiply a decimal by a power of 10 	<p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
17	3-Digit Multipliers	<ul style="list-style-type: none"> • Multiply by a 3-digit multiplier • Estimate the product by rounding to the place of greatest value • Solve a money multiplication problem • Determine the number of partial products • Apply strategies to multiply mentally 	
18	Squares & Square Roots	<ul style="list-style-type: none"> • Develop an understanding of finding perfect squares • Develop an understanding of finding the square root of a perfect square • List the first 20 perfect squares and their square roots • Use the Pythagorean Theorem to find the measurement of the hypotenuse of a right triangle 	
19	Chapter 2 Review	<ul style="list-style-type: none"> • Review 	
20	Chapter 2 Test Cumulative Review	<ul style="list-style-type: none"> • Identify the addition property applied to an equation • Add and subtract whole numbers • Solve for the variable in a subtraction equation 	

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		<ul style="list-style-type: none">• Identify the standard form of a whole number or a decimal written in expanded form or word form• Determine the decimal represented by a point on a number line• Solve for the variable in a part-whole model• Read and interpret a pictograph	
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Chapter 3: Divide by a Whole Number			
Lesson	Topic	Lesson Objectives	Chapter Materials
21	Division	<ul style="list-style-type: none"> • Demonstrate an understanding of division and the terms <i>dividend</i>, <i>divisor</i>, and <i>quotient</i> • Demonstrate an understanding of the inverse relationship between multiplication and division • Divide by a 1-digit divisor to find a 2- or 3-digit quotient • Solve a division word problem • Interpret a remainder • Check a division problem using multiplication 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Kit <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Graph Paper (page IA13) for each student (optional) • Short Form of Division (page IA16) (optional) • Short Form of Division (page IA16) for each student (optional) • Multi-Step Problems (page IA17) • Multi-Step Problems (page IA17) for each student <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 7–9 <p>Math 6 Tests and Answer Key Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
22	Multiples of 10	<ul style="list-style-type: none"> • Recognize numbers divisible by 2, 3, 4, 5, 6, 9, or 10 • Divide multiples of 10 using mental math • Divide by a 2-digit multiple of 10 • Solve a division word problem • Estimate a quotient • Interpret a remainder • Check a division problem using multiplication 	
23	2-Digit Divisors	<ul style="list-style-type: none"> • Divide by a 2-digit divisor • Estimate a quotient • Solve a division word problem • Adjust the quotient in a division problem • Interpret a remainder • Check a division problem using multiplication 	
24	Divide a Decimal by a Whole Number	<ul style="list-style-type: none"> • Divide a decimal by a 1-digit whole number • Annex a zero to rename a decimal • Check a division problem using multiplication • Estimate a quotient • Divide to find a quotient less than 1 • Express a fraction as an equivalent decimal • Solve a division word problem • Interpret a remainder 	
25	Divide a Decimal by 2-Digit Divisors	<ul style="list-style-type: none"> • Determine an average (mean) or a unit rate • Divide a decimal by a 2-digit whole number • Estimate a quotient • Divide to find a quotient less than 1 • Annex a zero to rename a decimal • Solve a division word problem • Interpret a remainder • Express a fraction as an equivalent decimal 	
26	Divide by a Power of 10	<ul style="list-style-type: none"> • Divide by a power of 10 • Divide a whole number by a 1-, 2-, or 3-digit divisor • Divide a decimal by a 1-, 2-, or 3-digit whole number • Estimate a quotient • Solve a division word problem • Interpret a remainder 	
27	Order of Operations	<ul style="list-style-type: none"> • Use the Order of Operations to simplify an expression • Complete an expression to make an equation true 	
28	Multi-Step Problems	<ul style="list-style-type: none"> • Solve a multi-step problem • Use the Order of Operations to write an equation for a multi-step problem 	
29	Chapter 3 Review	<ul style="list-style-type: none"> • Review 	
30	Chapter 3 Test Cumulative Review	<ul style="list-style-type: none"> • Solve multiplication and division equations • Determine the exponent form for a repeated multiplication equation 	

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	<ul style="list-style-type: none">• Determine the greatest common factor of 2 numbers• Determine the least common multiple of 2 numbers• Identify the multiplication expression for an exponent form, an array, a picture, or a part-whole model• Identify the value of a digit in a number• Determine the standard form of a decimal written in word form• Compare and order whole numbers and decimals• Identify the decimal form of a fraction• Read and interpret a line graph	
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Chapter 4: Fraction Theory			
Lesson	Topic	Lesson Objectives	Chapter Materials
31	Greatest Common Factor	<ul style="list-style-type: none"> Determine the greatest common factor (GCF) of two or more numbers by listing the factors, by creating and analyzing a Venn diagram, and by constructing factor trees to find and evaluate the prime factorizations Apply the GCF to problem-solving situations 	<p>Teaching Visuals (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Chart 2: <i>Halves, Thirds, Fourths</i> Chart 3: <i>Sixths, Eighths</i> Chart 4: <i>Tenths</i> Chart 5: <i>Part of a Set</i> <p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> Fraction Kit <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> Fraction Kit Ruler: Inch Ruler (eighths) <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Cumulative Review Answer Sheet (page IA9) for each student Numbers/Facts/Factors (page IA18) Venn Diagram: Factors (page IA19) Percent Circle (page IA20) <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Pages 10–14 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> A blank sheet of paper for each student and the teacher Several blank pages for display, for overlay with Percent Circle (page IA20) <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Fact Review pages Application pages Calculator Activities
32	Least Common Multiple	<ul style="list-style-type: none"> Determine the GCF of two numbers Determine the Least Common Multiple (LCM) of two or more numbers by listing the multiples, by creating and analyzing a Venn diagram, and by constructing factor trees to find and evaluate the prime factorizations Write prime factorizations using exponential notation Apply the LCM to problem-solving situations 	
33	Proper Fractions	<ul style="list-style-type: none"> Demonstrate an understanding of fractions Write a fraction to name part of a whole, a point on a number line, and part of a set Draw models of whole shapes, whole sets, and number lines to represent fractions Identify fractions equivalent to 1 Complete a fraction model 	
34	Improper Fractions & Mixed Numbers	<ul style="list-style-type: none"> Rename a mixed number as an improper fraction Rename an improper fraction as a whole number or a mixed number Estimate the value of an improper fraction Draw a model to solve a word problem 	
35	Equivalent Fractions	<ul style="list-style-type: none"> Apply strategies to rename fractions to higher terms Apply strategies to rename fractions to lower terms and to lowest terms Use cancellation to rename fractions to lowest terms 	
36	Compare & Order Fractions	<ul style="list-style-type: none"> Write an inequality to express unequal relationships Apply fraction number sense to compare and order fractions Compare and order unlike fractions by renaming to fractions with a common denominator Determine equivalent fractions using the LCM Compare and order mixed numbers and improper fractions 	
37	More Comparing Fractions	<ul style="list-style-type: none"> Write an inequality to express unequal relationships Apply fraction number sense to compare and order fractions Compare and order fractions by renaming unlike fractions to fractions with a common denominator, by cross-multiplying, and by renaming as decimals 	
38	Fractions & Percents	<ul style="list-style-type: none"> Use a fraction model to represent a percent Write a percent as a fraction in lowest terms Write a fraction as a percent Use a circle graph to solve problems Make a circle graph to communicate data 	
39	Chapter 4 Review	<ul style="list-style-type: none"> Review 	
40	Chapter 4 Test Cumulative Review	<ul style="list-style-type: none"> Determine the equation represented by a part-whole model or an array Recognize the expanded form or standard form of an exponent Apply multiplication properties Write the expanded form of a number using exponents Determine the average Identify all of the factors of a number 	

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		<ul style="list-style-type: none">• Solve word problems• Read and interpret a chart, a stem-and-leaf plot, and a double line graph	
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Chapter 5: Add & Subtract Fractions			
Lesson	Topic	Lesson Objectives	Chapter Materials
41	Estimate Sums & Differences	<ul style="list-style-type: none"> Identify fractions equivalent to 1 and to $\frac{1}{2}$ Write an inequality to express an unequal relationship Estimate the sum or the difference of mixed numbers and fractions by rounding to the nearest whole number or the nearest $\frac{1}{2}$ 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> Fraction Kit <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> Fraction Kit <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Cumulative Review Answer Sheet (page IA9) for each student Fraction Number Lines (page IA21) Venn Diagram (page IA22) (optional) Guess & Check (page IA23) Guess & Check (page IA23) for each student <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Pages 15–17 <p>Math 6 Tests and Answer Key Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Fact Review pages Application pages Calculator Activities
42	Add & Subtract Like Fractions	<ul style="list-style-type: none"> Add and subtract fractions and mixed numbers with like denominators Rename an improper fraction as a mixed number Simplify fractions by renaming to lowest terms Solve a fraction word problem Estimate the sum or the difference of mixed numbers by rounding to the nearest whole number Apply addition properties to fractions: Identity Property, Commutative Property, and Associative Property 	
43	Add & Subtract Related Fractions	<ul style="list-style-type: none"> Add and subtract fractions and mixed numbers with unlike (related) denominators Apply the Identity Property of Multiplication to rename fractions to higher terms Simplify fractions by renaming to lowest terms Solve a fraction word problem Estimate the sum or the difference of mixed numbers and fractions 	
44	Add & Subtract Unlike Fractions	<ul style="list-style-type: none"> Add and subtract fractions and mixed numbers with unlike (unrelated) denominators Multiply unlike denominators to find a common denominator Determine the Least Common Denominator by listing multiples, by creating and analyzing a Venn diagram, and by constructing factor trees to evaluate the prime factorizations Write prime factorizations using exponential notation Estimate the sum or the difference of mixed numbers and fractions 	
45	More Fractions & Mixed Numbers	<ul style="list-style-type: none"> Compare fractions and mixed numbers Round fractions to 0, $\frac{1}{2}$, or 1 Add and subtract fractions and mixed numbers Estimate the sum or the difference of mixed numbers and fractions Solve problems with 3 addends Solve word problems using the Least Common Denominator 	
46	Guess & Check	<ul style="list-style-type: none"> Use the guess-and-check strategy to solve problems 	
47	Chapter 5 Review	<ul style="list-style-type: none"> Review 	
48	Chapter 5 Test Cumulative Review	<ul style="list-style-type: none"> Read and interpret a bar graph Demonstrate an understanding of part-whole models Identify addition properties and multiplication properties Identify the mathematical expression for a given word phrase Identify multiples of a given number Identify prime and composite numbers 	

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Chapter 6: Plane Figure Geometry			
Lesson	Topic	Lesson Objectives	Chapter Materials
49	Basic Geometric Figures	<ul style="list-style-type: none"> Identify, name, and draw points, lines, and planes Distinguish between collinear and noncollinear points Identify the location of a point on a coordinate plane by naming the coordinates and the quadrant Graph points on a coordinate plane Recognize representations of points, lines, and planes in everyday life 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> 2 Rays: ray A and ray BC <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> 2 Rays: ray A and ray BC <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Cumulative Review Answer Sheet (page IA9) for each student
50	Types of Lines	<ul style="list-style-type: none"> Graph points on a coordinate plane to form a line, intersecting lines, perpendicular lines, and parallel lines Identify lines: intersecting, perpendicular, parallel Use variables to represent coordinates on a coordinate plane Complete an input/output table Relate lines to real-life situations 	<ul style="list-style-type: none"> Coordinate Plane (page IA24) Coordinate Planes (page IA25) Coordinate Planes (page IA25), 4 copies for each student Angles (page IA26)
51	Classifying & Measuring Angles	<ul style="list-style-type: none"> Identify and name rays and angles Classify angles: right, acute, obtuse, straight Use a protractor to measure and draw angles Relate geometry to everyday life 	<ul style="list-style-type: none"> Angles (page IA26) for each student Supplementary Angles (page IA27) Complementary Angles (page IA28) Complementary & Supplementary Angles (page IA29)
52	Angle Relationships	<ul style="list-style-type: none"> Develop an understanding of supplementary and complementary angles Find the unknown measure of an angle in a pair of supplementary angles and in a pair of complementary angles Recognize angles: right, acute, obtuse, straight Use a protractor to measure angles 	<ul style="list-style-type: none"> Triangles (IA30 CD) Triangles (IA30 CD) for each student Hierarchy of Quadrilaterals (page IA31) Quadrilaterals (page IA32) Quadrilaterals (page IA32) for each student
53	Polygons	<ul style="list-style-type: none"> Identify and name line segments Demonstrate an understanding of regular and irregular polygons Identify the number of sides and interior angles in a polygon Graph points on a coordinate plane to form a polygon 	<ul style="list-style-type: none"> Polygon Angle Measure (page IA33) for each student (optional) Congruent & Similar Polygons (page IA34)
54	Triangles	<ul style="list-style-type: none"> Develop the understanding that the sum of the measures of the angles in a triangle equals 180° Find the unknown measure of an angle in a triangle Classify triangles by their angles: right, acute, obtuse Classify triangles by their sides: equilateral, isosceles, scalene Measure the angles in a triangle using a protractor 	<ul style="list-style-type: none"> Congruent & Similar Polygons (page IA34) for each student Transformations (page IA35) Transformations (page IA35) for each student Block Letters (page IA36), one half page for each pair of students Circle (page IA37) Polyhedrons (page IA38) for each student
55	Quadrilaterals	<ul style="list-style-type: none"> Distinguish between regular and irregular quadrilaterals Develop an understanding of the classification of quadrilaterals Develop the understanding that the sum of the angles in a quadrilateral equals 360° Find the unknown measure of an angle in a quadrilateral Measure the angles in a quadrilateral using a protractor 	<p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> Pages 18–19 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> A blank page for display, for overlay with Coordinate Plane (page IA24) 2 lengths of string (each at least 1 yard in length) 2 sheets of colored paper (2 different colors)
56	Congruent & Similar Figures	<ul style="list-style-type: none"> Identify congruent and similar polygons Identify corresponding angles and line segments Write a ratio for corresponding sides in a pair of polygons Draw congruent and similar polygons 	<ul style="list-style-type: none"> A small rectangular poster or teaching chart
57	Transformations & Symmetry	<ul style="list-style-type: none"> Develop an understanding of transformations: translation, rotation, reflection Identify a transformation Draw a transformed figure Identify symmetrical figures Draw lines of symmetry on a figure 	<ul style="list-style-type: none"> An overhead protractor Chalk or markers (3 different colors) Construction paper (at least 3 different colors)
58	Circles	<ul style="list-style-type: none"> Find the length of the diameter of a circle given the radius Find the length of the radius of a circle given the diameter 	<ul style="list-style-type: none"> Tracing paper (optional) An object to represent each of the

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		<ul style="list-style-type: none"> • Identify parts of a circle: center, radius, chord, diameter, central angle • Draw a circle using a protractor • Measure the central angles of a circle using a protractor • Relate fractions of a circle to degrees in a circle • Make a circle graph to represent given data 	<p>following: cone, cylinder, rectangular prism, sphere, square prism, square pyramid, triangular prism, triangular pyramid (optional)</p> <ul style="list-style-type: none"> • A purchased set of 3-dimensional figures • Three 3 x 5 cards • A ruler for each student and the teacher • A brass fastener for each student and the teacher • A protractor for each student and the teacher • Graph paper for each student • 8 toothpicks or craft sticks for each student • A sheet of notebook paper for each student • A blank sheet of paper for each student • Transparent tape for each student <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
59	3-Dimensional Figures	<ul style="list-style-type: none"> • Develop an understanding of polyhedrons • Identify 3-dimensional figures that are not polyhedrons • Classify 3-dimensional figures: spherical, conical, cylindrical • Identify the number of faces, vertices, and edges in polyhedrons • Construct polyhedrons 	
60	Chapter 6 Review	<ul style="list-style-type: none"> • Review 	
61	Chapter 6 Test Cumulative Review	<ul style="list-style-type: none"> • Compare fractions • Multiply and divide decimals by a multiple of 10 • Add and subtract fractions • Identify kinds of angles and lines • Find the unknown measure of an angle in a triangle • Multiply by a 2-digit multiplier • Identify a prime number • Determine a common factor • Find the missing subtrahend in a subtraction equation • Add decimals and whole numbers • Compare integers • Use a chart to answer questions and to solve problems 	

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Chapter 7: Multiply Fractions & Decimals			
Lesson	Topic	Lesson Objectives	Chapter Materials
62	Multiply Fractions	<ul style="list-style-type: none"> • Multiply a whole number and a fraction • Multiply to find a fraction of a whole number • Multiply to find a fraction of a fraction • Rename a whole number as an improper fraction • Write and solve an equation for a multiplication word problem 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Decimal Place Value Pocket Chart (B) • Fraction Kit • Fraction Number Line (yellow) <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Fraction Kit • Fraction Number Line (yellow) <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Fraction Paper Folding (page IA39) (optional) • Decimal Grids (page IA40) • In-Between Numbers (page IA41) <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 20–21 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • 12 counters • A blank sheet of paper (unlined) for the teacher • 2 blank sheets of paper (unlined) for each student • Colored markers: red and blue <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
63	Simplify	<ul style="list-style-type: none"> • Multiply to find a fraction of a fraction • Use cancellation when multiplying fractions • Identify the reciprocal of a fraction • Write and solve an equation for a word problem 	
64	Multiply Mixed Numbers	<ul style="list-style-type: none"> • Multiply mixed numbers • Rename an improper fraction as a mixed number • Rename a mixed number as an improper fraction • Apply the Distributive Property of Multiplication over Addition when multiplying mixed numbers • Use cancellation when multiplying mixed numbers • Write and solve an equation for a word problem • Estimate products of mixed numbers and fractions 	
65	Multiply Decimals	<ul style="list-style-type: none"> • Multiply a decimal by a decimal • Demonstrate an understanding of the relationship between decimals and fractions • Estimate a decimal product by rounding to the nearest whole number or to the place of greatest value • Apply the Distributive Property of Multiplication over Addition when multiplying decimals • Use mental math to multiply a decimal and a power of 10 	
66	More Multiplying Decimals	<ul style="list-style-type: none"> • Multiply a decimal by a decimal • Demonstrate an understanding of the relationship between decimals and fractions • Annex zeros in the product • Multiply money by a decimal • Estimate a decimal product by rounding 	
67	Between Numbers	<ul style="list-style-type: none"> • Develop an understanding of our infinite number system • Identify fractions and decimals that come between two numbers • Solve a multi-step word problem 	
68	Chapter 7 Review	<ul style="list-style-type: none"> • Review 	
69	Chapter 7 Test Cumulative Review	<ul style="list-style-type: none"> • Find the unknown measure of an angle in a quadrilateral • Identify the parts of a circle • Classify triangles: equilateral, isosceles, scalene • Solve money word problems • Add and subtract mixed numbers • Identify the value of a digit in a decimal • Multiply fractions and decimals • Read and interpret a double line graph 	

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Chapter 8: Divide Fractions			
Lesson	Topic	Lesson Objectives	Chapter Materials
70	Divide by a Fraction	<ul style="list-style-type: none"> • Demonstrate an understanding of dividing a whole number by a fraction and dividing a fraction by a fraction • Divide a mixed number by a fraction • Use a number line to solve a division equation with fractions • Draw a diagram to solve a division equation with fractions • Check a division problem using multiplication • Write and solve an equation for a word problem 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Fraction Kit <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Fraction Kit <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Multi-Step Word Problems (page IA42) <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Page 22 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • Colored markers or chalk: 3 different colors <p>Math 6 Tests and Answer Key Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
71	Divide Fractions	<ul style="list-style-type: none"> • Demonstrate an understanding of dividing a fraction to find a quotient with a remainder • Draw a diagram to solve a division equation with fractions • Use a number line to solve a division equation with fractions • Check a division problem using multiplication 	
72	Multiply by the Reciprocal	<ul style="list-style-type: none"> • Identify the reciprocal of a fraction • Divide by multiplying by the reciprocal of the divisor • Divide a fraction by a whole number • Draw a diagram to solve a division word problem with fractions • Check a division problem using multiplication • Write related multiplication and division equations for a division problem with fractions 	
73	Mixed Numbers & Reciprocals	<ul style="list-style-type: none"> • Demonstrate an understanding of dividing mixed numbers • Divide mixed numbers by multiplying by the reciprocal of the divisor • Check a division problem using multiplication • Draw a diagram to solve a division word problem with a mixed number • Use a number line to solve a division word problem with a mixed number • Solve fraction word problems 	
74	Multi-Step Equations	<ul style="list-style-type: none"> • Write and solve a multi-step equation for a multi-step word problem • Demonstrate an understanding of the Order of Operations 	
75	Properties	<ul style="list-style-type: none"> • Apply mathematical properties to evaluate an expression with fractions • Use the Order of Operations to evaluate an expression • Substitute a given value for a variable in an expression 	
76	More Multi-Step Word Problems	<ul style="list-style-type: none"> • Use the Order of Operations to write and solve a multi-step equation for a multi-step word problem • Determine whether a multi-step problem has too much or too little information 	
77	Chapter 8 Review	<ul style="list-style-type: none"> • Review 	
78	Chapter 8 Test Cumulative Review	<ul style="list-style-type: none"> • Add integers • Complete a number sequence • Determine an equivalent expression • Evaluate an expression with more than one operation • Read and interpret a double line graph 	

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Chapter 9: Divide Decimals			
Lesson	Topic	Lesson Objectives	Chapter Materials
79	Divide Decimals	<ul style="list-style-type: none"> • Divide a decimal by a 1-digit whole number • Estimate the quotient of a decimal division problem • Check a division problem using multiplication • Annex a zero to rename a decimal • Divide a decimal by a power of 10 using mental math 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Kit • Number Line <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Input/Output Tables (page IA43) • Input/Output Tables (page IA43) for each student • Dividing Decimals (page IA44) • Dividing Decimals (page IA44) for each student <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 23–24 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • A calculator for each student <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
80	Estimate	<ul style="list-style-type: none"> • Divide a decimal by a 1- or a 2-digit whole number • Estimate the quotient of a decimal division problem • Divide a whole number by a whole number to find a decimal fraction in the quotient • Check a division problem using multiplication • Solve a decimal word problem 	
81	Repeating Decimals	<ul style="list-style-type: none"> • Divide a decimal by a 1- or a 2-digit whole number • Estimate the quotient of a decimal division problem • Develop an understanding of terminating decimals and repeating decimals • Recognize a repeating decimal in the quotient • Divide a whole number by a whole number to find a decimal fraction in the quotient • Write an equation for a word problem • Solve money word problems 	
82	Fractions as Decimals	<ul style="list-style-type: none"> • Rename a fraction as a decimal by renaming the denominator as a power of 10 • Rename a fraction as a decimal using division • Identify a quotient as a repeating decimal or a nonrepeating, non-terminating decimal • Compare a decimal and a fraction 	
83	Divide by a Decimal	<ul style="list-style-type: none"> • Divide a whole number by a decimal • Write an equation for a word problem 	
84	More Dividing Decimals	<ul style="list-style-type: none"> • Divide a whole number by a decimal • Divide a decimal by a decimal • Solve money word problems • Complete an input/output table 	
85	Real Numbers	<ul style="list-style-type: none"> • Develop an understanding of real numbers • Apply addition and multiplication properties to real numbers 	
86	Chapter 9 Review	<ul style="list-style-type: none"> • Review 	
87	Chapter 9 Test Cumulative Review	<ul style="list-style-type: none"> • Solve word problems • Read a Venn diagram • Demonstrate an understanding of the parts of a circle • Find the perimeter of a square • Determine whether two polygons are congruent or similar • Find the unknown measure of an angle in a triangle • Identify a triangle according to its angles • Read and interpret a line graph 	

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Chapter 10: Equations			
Lesson	Topic	Lesson Objectives	Chapter Materials
88	Expressions	<ul style="list-style-type: none"> • Write a numerical or an algebraic expression for a word phrase • Demonstrate an understanding of algebraic expressions with more than one operation • Evaluate an expression using substitution • Use the Order of Operations to evaluate expressions 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Shapes Kit (optional) • Place Value Kit • Variable Cards <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Equation Mat • Variable Cards <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Variable Cards (page IA45) (optional) • Equation Mat (page IA46) • Graph an Equation (page IA47) • Graph an Equation (page IA47) for each student <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 25–27 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • Round counters for each student and the teacher <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
89	Equations	<ul style="list-style-type: none"> • Demonstrate an understanding of equations • Write an equation with two equal expressions • Determine the unknown in a word problem and write it as a variable in an equation • Evaluate and relate expressions using $>$, $<$, or $=$ 	
90	Simplify Expressions	<ul style="list-style-type: none"> • Demonstrate an understanding of the Commutative and Associative Properties of Addition and of Multiplication • Simplify algebraic expressions using manipulatives • Apply the Commutative and Associative Properties to simplify algebraic expressions 	
91	Addition & Subtraction Equations	<ul style="list-style-type: none"> • Solve addition and subtraction equations using inverse operations • Check addition and subtraction equations using substitution 	
92	Multiplication Equations	<ul style="list-style-type: none"> • Solve multiplication equations using division (the inverse operation) • Check multiplication equations using substitution • Write an equation with a variable to solve a word problem 	
93	Multiplication & Division Equations	<ul style="list-style-type: none"> • Solve multiplication and division equations using inverse operations • Check multiplication and division equations using substitution • Write an equation with a variable to solve a word problem • Demonstrate an understanding of inequalities • Picture an inequality on a number line • Determine whether a given number is a solution to an inequality 	
94	Equivalent Expressions	<ul style="list-style-type: none"> • Demonstrate an understanding of the Distributive Property of Multiplication over Addition • Apply the Distributive Property of Multiplication over Addition to find equivalent expressions • Solve equations using inverse operations 	
95	Distance = Rate \times Time	<ul style="list-style-type: none"> • Calculate the distance traveled given the rate and the time, the rate of travel given the distance and the time, and the time traveled given the distance and the rate • Complete a table using the formula $d = r \times t$ • Create a line graph relating to the formula $d = r \times t$ 	
96	Chapter 10 Review	<ul style="list-style-type: none"> • Review 	
97	Chapter 10 Test Cumulative Review	<ul style="list-style-type: none"> • Read and interpret a bar graph • Identify plane figures when given the characteristics • Determine the perimeter of a figure • Solve a fraction word problem • Add, multiply, and divide fractions • Find a missing factor • Identify the reciprocal of a fraction • Multiply and divide decimals • Determine the value of an expression • Determine the lowest term of a fraction or a mixed number 	

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Chapter 11: Perimeter & Area			
Lesson	Topic	Lesson Objectives	Chapter Materials
98	Perimeter	<ul style="list-style-type: none"> Calculate the perimeter of a polygon using a formula Calculate the unknown length of a side of a polygon Solve an algebraic expression to find the perimeter of a rectangle 	<p>Teaching Visuals (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Chart 6: <i>Polygons</i> Chart 7: <i>Center Points, Radii & Diameters</i> Chart 8: <i>Chords & Central Angles</i> Chart 9: <i>Area</i> <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Cumulative Review Answer Sheet (page IA9) for each student Graph Paper (page IA13) Graph Paper (page IA13) for each student Find the Circumference (page IA48) Find the Circumference (page IA48) for each student Area: Rectangles, Squares & Parallelograms (page IA49) Area: Rectangles, Squares & Parallelograms (page IA49) for each student Area: Triangles (page IA50) Area: Triangles (page IA50) for each student Area: Circles (page IA51) Area: Circles (page IA51) for each student Surface Area: Triangular Prism (page IA52) Surface Area: Triangular Prism (page IA52) for each student Surface Area (page IA53) Surface Area (page IA53) for each student Floor Plan Activity (page IA54) Floor Plan Activity (page IA54) for each pair of students Floor Plan Grid (page IA55) for each pair of students Geometry Review I (page IA56) Geometry Review II (page IA57) Nets (page IA58) <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> Pages 28–29 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> A cereal box (rectangular prism) for every 2 to 3 students and the teacher A 12-inch length of string for each pair of students A cylindrical object, such as a can or mug, for each pair of students A cylinder (potato chip container with top, a can, or similar object) for each student A small oatmeal container (optional) A classroom set of 3-dimensional objects (See Lesson 59.) A sheet of 12 × 18 construction paper for each pair of students 1–2 sheets of construction paper for each student Two 12 × 18 sheets of construction paper A calculator for each student A ruler for each student and the teacher
99	Circumference	<ul style="list-style-type: none"> Develop an understanding of the relationship between the diameter and the circumference of a circle Calculate the circumference of a circle using a formula Calculate the diameter of a circle given the circumference Relate circumference to real-life situations 	
100	Area of Rectangles, Squares & Parallelograms	<ul style="list-style-type: none"> Calculate the area of rectangles, squares, and parallelograms using a formula Calculate the area of a complex figure Calculate the unknown side (length or width) of a rectangle or a square Relate area to real-life situations 	
101	Area of Triangles	<ul style="list-style-type: none"> Calculate the area of triangles using a formula Calculate the area of a complex figure Calculate the unknown height or base of a triangle Relate area to real-life situations 	
102	Area of Circles	<ul style="list-style-type: none"> Calculate the area of a circle using a formula Estimate the area of a circle Relate area to real-life situations 	
103	Surface Area of Prisms	<ul style="list-style-type: none"> Name the 3-dimensional figure that can be formed from a net Calculate the surface area of rectangular, square, and triangular prisms using formulas Construct a triangular prism Relate surface area to real-life situations 	
104	Surface Area of Cylinders	<ul style="list-style-type: none"> Calculate the surface area of rectangular, square, and triangular prisms using formulas Calculate the surface area of a cylinder using formulas Construct a cylinder net Relate surface area to real-life situations 	
105	Fixed Areas	<ul style="list-style-type: none"> Recognize that perimeter can vary for a fixed area Calculate the area and perimeter of a rectangle Calculate the area of a complex figure Create a basic floor plan from a fixed area Relate geometry to real-life situations 	
106	Chapter 11 Review	<ul style="list-style-type: none"> Review 	
107	Chapter 11 Test Cumulative Review	<ul style="list-style-type: none"> Identify prime and composite numbers Use the guess-and-check strategy to solve problems Identify equivalent expressions Estimate products and sums Identify all the factors of a number Add and multiply decimals Determine the value of a variable Read and interpret a pictograph Read and interpret a Venn Diagram 	

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			<ul style="list-style-type: none">• Transparent tape for each student and the teacher Math 6 Tests and Answer Key Optional (Teacher's Toolkit CD): <ul style="list-style-type: none">• Fact Review pages• Application pages• Calculator Activities
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Chapter 12: Volume			
Lesson	Topic	Lesson Objectives	Chapter Materials
108	Volume of Rectangular Prisms	<ul style="list-style-type: none"> • Develop an understanding of volume • Find the volume of a rectangular prism using a model • Calculate the volume of a rectangular prism using a formula • Relate volume to real-life situations 	<p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Triangular Prisms & Cylinders (page IA59) • Fixed Volume (page IA60) • Fixed Volume (page IA60) for each group of students • Volume Review (page IA61) • Volume Review (page IA61) for each student • Volume Word Problems, page IA62 <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Page 30 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • A clear storage container with lid (shoebox size) • Cube-shaped blocks • Several $8\frac{1}{2} \times 11$ blank sheets of paper • A rectangular prism-shaped block • A clear cube-shaped container with lid • A calculator for each student • A ruler for each student and the teacher • Four 9×12 sheets of construction paper for each group of students and the teacher • Transparent tape for each group of students and the teacher • 6 cups of rice, unpopped popcorn, or dried beans for each group of students and the teacher • A box lid or rectangular pan for each group of students and the teacher • A 1-cup liquid measuring cup for each group of students and the teacher <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
109	Volume of Cubes	<ul style="list-style-type: none"> • Develop an understanding of the volume of a cube (square prism) • Find the volume of a cube using a model • Calculate the volume of a cube using a formula • Calculate the unknown measurement of a rectangular prism • Relate volume to real-life situations 	
110	Volume of Other 3-D Figures	<ul style="list-style-type: none"> • Find the volume of an irregular prism using a model • Calculate the volume of a triangular prism and of a cylinder using formulas • Relate volume to real-life situations 	
111	Fixed Volumes & Fixed Lateral Surfaces	<ul style="list-style-type: none"> • Recognize that surface area can vary for a fixed volume • Calculate the volume and the lateral surface area of a rectangular prism and of a cylinder using formulas • Recognize that volume can vary for a fixed lateral surface area 	
112	Chapter 12 Review	<ul style="list-style-type: none"> • Review 	
113	Chapter 12 Test Cumulative Review	<ul style="list-style-type: none"> • Add, subtract, multiply, and divide whole numbers, decimals, and fractions • Rename a fraction as a decimal • Identify the ordered pair for a point on a coordinate plane • Determine the radius and the diameter of a circle • Identify the formula used to find the area of a circle • Identify geometric figures: a parallelogram, parallel lines, perpendicular lines • Classify angles as <i>acute</i>, <i>obtuse</i>, or <i>right</i> • Read and interpret a line plot 	

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Chapter 13: Ratios, Proportions & Percents			
Lesson	Topic	Lesson Objectives	Chapter Materials
114	Ratios & Rates	<ul style="list-style-type: none"> • Write a ratio in three forms: word form, ratio form, fraction form • Write ratios to describe part-to-part, part-to-whole, and whole-to-part comparisons • Find equivalent ratios • Determine the unit rate • Find an equivalent ratio using the unit rate • Use ratios to represent real-life situations and to solve problems 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Shapes Kit • Place Value Kit <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Black and red counters <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Graph Paper (page IA13) • Graph Paper (page IA13) for each student • Parent Letter (page IA63), a half page for each student • Pictured Ratios (page IA64) • Ratio Tables (page IA65) • Missing Measurements (page IA66) • Percent (page IA67) • Percent Models: Find the Part (page IA68) • Percent Models: Find the Whole (page IA69) • Circle Graph: Elements in the Earth’s Crust (page IA70) <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 31–32 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • A map • Samples of floor plans • Modeling clay • A calculator for each student • A map for each group of students (optional) • A ruler for each student and the teacher • A straight edge for each student and the teacher (optional) <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
115	Ratio Tables	<ul style="list-style-type: none"> • Complete a ratio table • Find equivalent ratios • Make a ratio table • Solve problems using ratio tables • Use ratios to represent real-life situations and to solve problems 	
116	Solving Proportions	<ul style="list-style-type: none"> • Develop an understanding of proportions using models • Determine whether two ratios are proportional • Solve for a missing term in a proportion • Use ratios to represent real-life situations and to solve problems 	
117	Similar Figures	<ul style="list-style-type: none"> • Develop an understanding of proportions in similar figures • Solve for a missing term in a proportion • Find the unknown measure in similar figures using proportions • Use indirect measurement to find the unknown measure in similar objects • Use ratios to represent real-life situations and to solve problems 	
118	Scale	<ul style="list-style-type: none"> • Find actual measurements using a scale and a scale drawing, map, or model • Determine the unknown measure on a scale drawing given the scale and the actual measurement • Solve word problems using ratios 	
119	Percent	<ul style="list-style-type: none"> • Develop an understanding of percent using models • Express percents as ratios, decimals, and fractions in lowest terms • Express decimals and fractions as percents • Compare percents to decimals and fractions using $>$, $<$, or $=$ • Solve percent word problems using proportions 	
120	Finding Percent of a Number	<ul style="list-style-type: none"> • Find a percent of a number using an equation, a model, and a proportion • Solve percent word problems 	
121	Finding the Unknown Whole	<ul style="list-style-type: none"> • Find the unknown whole in a percent problem using a model, an equation, and a proportion • Solve percent word problems 	
122	Speed, Distance & Time	<ul style="list-style-type: none"> • Calculate the distance given the rate of speed and the time, the rate of speed given the distance and the time, and the time given the distance and the rate of speed • Rename to calculate distance, rate of speed, or time • Find an equivalent rate using a proportion 	
123	Chapter 13 Review	<ul style="list-style-type: none"> • Review 	
124	Chapter 13 Test Cumulative Review	<ul style="list-style-type: none"> • Read and interpret a circle graph • Solve word problems • Simplify square roots, exponents, and expressions 	

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		<ul style="list-style-type: none">• Solve for a missing term in a proportion• Calculate the area of a complex figure• Calculate the circumference of a circle• Calculate the volume of a cylinder• Identify the equation for the area of a rectangular prism and a triangle	
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Chapter 14: Measurement			
Lesson	Topic	Lesson Objectives	Chapter Materials
125	Linear Measurement	<ul style="list-style-type: none"> • Demonstrate an understanding of linear units: <i>inch, foot, yard, and mile</i> • Estimate measurements using benchmarks • Measure to the nearest inch, half inch, fourth inch, eighth inch, and sixteenth inch • Convert linear measurements to smaller or larger units • Find a fraction of a measurement unit • Add and subtract linear measurements 	<p>Teaching Visuals (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Chart 10: <i>Customary Measurement</i> • Chart 11: <i>Metric Measurement</i> • Chart 12: <i>Metric Measurement: Length & Distance</i> • Chart 13: <i>Metric Measurement: Capacity</i> • Chart 14: <i>Metric Measurement: Mass</i> • Chart 15: <i>Customary & Metric Conversions</i> • Chart 16: <i>Time Measurement</i> <p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Measurement Flashcards • Rulers: Measuring Tape (meter) • Rulers: Inch Ruler (sixteenths), Centimeter Ruler, and Measuring Tape (yard) (optional) • Thermometer • Red Strip • Boiling Point steam cloud • Clock (optional) <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Place Value Kit • Measurement Flashcards • Rulers: Measuring Tapes (yard and meter) • Rulers: Inch Ruler (sixteenths), and Centimeter Ruler (optional) • Thermometer • Red Strip • Clock <p>Instructional Aids (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Customary Measurement Craze (page IA71) • Metric Measure Mania (page IA72) for each group of students • Customary Measurement Word Problems (page IA73) • Metric Measurement Word Problems (page IA74) (optional) • Temperature Hunt (page IA75) for each group of students • Double-Scale Thermometer (page IA76) • Double-Scale Thermometer (page IA76) for each student • Time Zones of the World (page IA77) • Time Zones of the World (page IA77) for each student • Time Zones (page IA78) • Map Key (page IA79) <p>Christian Worldview Shaping (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 33–34
126	Weight & Capacity	<ul style="list-style-type: none"> • Demonstrate an understanding of units of weight: <i>pound, ounce, and ton</i> • Read a spring scale • Demonstrate an understanding of units of capacity: <i>fluid ounce, cup, pint, quart, and gallon</i> • Convert weight and capacity measurements to smaller or larger units • Find a fraction of a measurement unit • Add and subtract weight and capacity measurements 	
127	Metric Linear Measurement	<ul style="list-style-type: none"> • Develop an understanding of the metric system • Develop an understanding of metric linear units: <i>kilometer, meter, centimeter, and millimeter</i> • Estimate and measure to the nearest meter, centimeter, and millimeter • Determine the appropriate linear unit • Convert metric linear measurements to smaller or larger units • Find a fraction of a measurement unit • Compare metric linear measurements using $>$ or $<$ • Add and subtract metric linear measurements 	
128	Metric Capacity & Mass	<ul style="list-style-type: none"> • Develop an understanding of metric units of capacity: <i>liter and milliliter</i> • Develop an understanding of metric units of mass: <i>gram, kilogram, and milligram</i> • Convert metric capacity and mass measurements to smaller or larger units • Add and subtract metric capacity and mass measurements 	
129	Customary & Metric	<ul style="list-style-type: none"> • Add, subtract, multiply, and divide measurements • Solve measurement word problems • Find a fraction of a measurement 	
130	Fahrenheit & Celsius	<ul style="list-style-type: none"> • Recognize <i>degree</i> as a measuring unit for temperature • Recognize that $^{\circ}C$ represents <i>degrees Celsius</i> and $^{\circ}F$ represents <i>degrees Fahrenheit</i> • Identify standard Celsius and Fahrenheit temperatures • Determine the more reasonable temperature • Read and set a Celsius and a Fahrenheit thermometer • Determine the amount of increase or decrease between two temperatures • Measure temperature using a thermometer • Convert temperatures: Celsius to Fahrenheit and Fahrenheit to Celsius 	
131	Relate Customary & Metric Units	<ul style="list-style-type: none"> • Recognize approximate equivalencies between customary and metric units of measurement • Compare customary and metric measurements • Estimate conversions between customary and metric measurements 	
132	Telling & Renaming Time	<ul style="list-style-type: none"> • Identify equivalent units of time • Tell and write time to the minute 	

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		<ul style="list-style-type: none"> • Differentiate between AM and PM • Develop an understanding of a 24-hour clock • Convert units of time to smaller or larger units • Find a fraction of a unit of time • Add and subtract time 	<p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • A ruler for each student and the teacher • A transparent ruler • A yardstick • A tape measure • A spring scale • A 1-lb loaf of bread with 16 1-oz slices or 1 lb of cheese with 16 1-oz slices • Objects to be weighed • Containers: four 1-cup, four 1-pint, four 1-quart, two 1-gallon • 2 gallons of water • A meter stick • Clearview Liter Cube Set • A 1-liter beaker or metric measuring container • A balance or a metric scale • A 1-liter bottle of water for each student and the teacher • Objects that fit in your hand • 6 thermometers of various types • Judy Clock • A toy that changes shape for each group of students <p>Math 6 Tests and Answer Key Optional (Teacher's Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
133	Elapsed Time & Time Zones	<ul style="list-style-type: none"> • Demonstrate an understanding of world time zones • Determine the elapsed time • Add and subtract time 	
134	Rename Units of Measure	<ul style="list-style-type: none"> • Estimate customary and metric measurements of objects • Convert measurements to smaller or larger units • Compare customary and metric units of measurement • Add, subtract, multiply, and divide measurements • Solve measurement word problems • Determine mileage using a map scale • Convert temperatures: Celsius to Fahrenheit and Fahrenheit to Celsius • Identify standard temperatures • Determine the time in various time zones 	
135	Unit Multipliers	<ul style="list-style-type: none"> • Write an equivalency as a unit multiplier • Determine the missing term in a unit multiplier • Convert measurements using a unit multiplier 	
136	Chapter 14 Review	<ul style="list-style-type: none"> • Review 	
137	Chapter 14 Test Cumulative Review	<ul style="list-style-type: none"> • Read and interpret a line graph • Round numbers to a given place • Estimate a quotient or a sum • Simplify an expression using substitution • Determine the value of a variable in an expression or an equation • Identify common factors and common multiples of two numbers • Demonstrate an understanding of a circle: diameter, radius, and chord 	

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Chapter 15: Statistics			
Lesson	Topic	Lesson Objectives	Chapter Materials
138	Statistics	<ul style="list-style-type: none"> • Complete a frequency table using given data • Determine the range, median, and mode for a set of data • Calculate the mean for a set of data 	<p>Teaching Visuals (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Chart 17: <i>Histogram</i> • Chart 18: <i>Box-and-Whisker Plot</i> <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Frequency Tables (page IA80) • Frequency Tables (page IA80) for each student • Double Bar Graph (page IA81) • Double Bar Graph (page IA81) for each student • Double Line Graph (page IA82) • Double Line Graph (page IA82) for each student • Stem-and-Leaf Plot (page IA83) • Stem-and-Leaf Plot (page IA83) for each student • Line Plot (page IA84) • Line Plot (page IA84) for each student • Histogram (page IA85) • Histogram (page IA85) for each student • Box-and-Whisker Plot (page IA86) • Box-and-Whisker Plot (page IA86) for each student • Graph: Double Bar Graph, page IA87 (CD) • Graph: Double Line Graph, page IA88 (CD) • Stem-and-Leaf Plot & Line Plot, page IA89 (CD) • Graph: Histogram, page IA90 (CD) • Graph: Box-and-Whisker Plot, page IA91 (CD) • Data (page IA92) • Data (page IA92) for each student <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Page 35 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • A calculator for each student • A ruler for each student and the teacher <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
139	Double Bar & Double Line Graphs	<ul style="list-style-type: none"> • Read and interpret a double bar graph and a double line graph • Determine the range, median, and mode for a set of data • Calculate the mean for a set of data 	
140	Stem-and-Leaf Plots	<ul style="list-style-type: none"> • Read and interpret a stem-and-leaf plot • Complete a stem-and-leaf plot • Determine the range, median, and mode for a set of data • Calculate the mean for a set of data 	
141	Line Plots	<ul style="list-style-type: none"> • Read and interpret a line plot • Record data on a line plot • Demonstrate an understanding of a cluster, a gap, and an outlier • Determine the effects of an outlier 	
142	Histograms	<ul style="list-style-type: none"> • Read and interpret a histogram • Complete a frequency table using given data • Construct a histogram using given data 	
143	Box-and-Whisker Plot	<ul style="list-style-type: none"> • Develop an understanding of box-and-whisker plots • Determine the lower, middle, and upper quartiles of a set of data • Construct a box-and-whisker plot using given data 	
144	Graph Review	<ul style="list-style-type: none"> • Read and interpret graphs: double bar graph, double line graph, stem-and-leaf plot, line plot, histogram, box-and-whisker plot 	
145	Compare Graphs	<ul style="list-style-type: none"> • Calculate the mean for a set of data • Determine the range, median, and mode for a set of data • Record data in a frequency table • Choose a graph to display a set of data 	
146	Chapter 15 Review	<ul style="list-style-type: none"> • Review 	
147	Chapter 15 Test Cumulative Review	<ul style="list-style-type: none"> • Add, subtract, multiply, and divide whole numbers, decimals, and fractions • Find the value of a variable in an equation • Add customary measurements • Convert customary measurements • Express a percent as a fraction in lowest terms • Find the decimal equivalent of a fraction • Identify the value of a digit in a decimal • Round to estimate the difference • Express a fraction as a percent • Measure a line to the nearest sixteenth inch • Identify a chord and a diameter in a circle • Find the unknown measure of an angle in a pair of supplementary angles and in a triangle • Calculate the volume of a cylinder 	

Math 6, 3rd Edition—Lesson Plan Overview

Chapter 16: Probability			
Lesson	Topic	Lesson Objectives	Chapter Materials
148	Theoretical Probability	<ul style="list-style-type: none"> • Develop an understanding of probability • Write probability as a fraction, a decimal, and a percent • Find the theoretical probability of an event and its complement 	<p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Cumulative Review Answer Sheet (page IA9) for each student • Probability (page IA93) • Probability (page IA93) for each student • Theoretical Probability (page IA94) • Sample Spaces (page IA95) • Tree Diagram (page IA96) • Tree Diagram (page IA96) for each student • Multiplication Counting Principle (page IA97) • Experimental Probability (page IA98) • Experimental Probability (page IA98) for each student • Spinning Penny Experiment (page IA99) for each pair of students (optional) • Fair or Unfair Games (page IA100) • Fair or Unfair Games (page IA100) for each group of students (optional) • Probability Spinner (page IA101) • Probability Spinner (page IA101) for each student <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Pages 36 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • Colored markers: red and blue • Colored pencils or crayons: red and blue for each student • A calculator (optional) for each student • A paper clip for each student and the teacher • A penny for every two students (optional) • 6 Unifix Cubes: 4 orange, 1 brown, 1 yellow • An opaque bag • Two 1–6 number cubes • Two 1–6 number cubes for each group of students (optional) <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
149	Sample Spaces	<ul style="list-style-type: none"> • Find the sample space for and the probability of an event • Make a tree diagram to list the sample space for an event • Determine the number of possible outcomes using the Multiplication Counting Principle • Find the theoretical probability of an event 	
150	Experimental Probability	<ul style="list-style-type: none"> • Find the theoretical probability of an event • Predict the results of an experiment using the theoretical probability of an event • Conduct a probability experiment • Find the experimental probability of an event • Create a line plot for the results of an experiment 	
151	Fair or Unfair?	<ul style="list-style-type: none"> • Determine whether a game is fair or unfair using probability • Conduct a probability experiment • Find the experimental probability and the theoretical probability of an event • List the sample space for an event • Make predictions using probability 	
152	Independent & Dependent Events	<ul style="list-style-type: none"> • Differentiate between independent and dependent compound events • Find the probability of compound events using a formula 	
153	Chapter 16 Review	<ul style="list-style-type: none"> • Review 	
154	Chapter 16 Test Cumulative Review	<ul style="list-style-type: none"> • Identify the standard form of a number written in exponent form • Round a decimal to a given place • Estimate the location of a fraction on a number line • Classify figures as congruent • Identify the type of triangle • Solve measurement and money word problems • Find the mean of data on a chart • Find the unknown measure for similar figures • Find an equivalent fraction or ratio • Determine the least common multiple • Divide fractions and whole numbers • Estimate the sum of mixed numbers • Simplify an expression using the Order of Operations • Multiply decimals • Read and interpret a stem-and-leaf plot 	

Math 6, 3rd Edition—Lesson Plan Overview

Chapter 17: Statistics			
Lesson	Topic	Lesson Objectives	Chapter Materials
155	Integers	<ul style="list-style-type: none"> • Demonstrate an understanding of integers • Find the absolute value of a number • Compare and order integers 	<p>Teacher Manipulatives Packet:</p> <ul style="list-style-type: none"> • Thermometer • Red Strip <p>Student Manipulatives Packet:</p> <ul style="list-style-type: none"> • Algebra Mat Kit • Thermometer • Red Strip <p>Instructional Aids (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Positive & Negative Number Line (page IA4) • Cumulative Review Answer Sheet (page IA9) for each student • Coordinate Plane (page IA24) • Coordinate Planes (page IA25) for each student • Algebra Mat (page IA102) • Positive & Negative Number Lines (page IA103) 2 copies for each student • Subtraction Patterns (page IA104) • Subtraction Patterns (page IA104) for each student • More Subtraction Patterns (page IA105) • Multiplication Patterns (page IA106) • Order of Operations (page IA107) • Order of Operations (page IA107) for each student <p>Christian Worldview Shaping (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Page 37–39 <p>Other Teaching Aids:</p> <ul style="list-style-type: none"> • Plastic counters: opaque (to appear black when placed on the Algebra Mat) and transparent red <p>Math 6 Tests and Answer Key</p> <p>Optional (Teacher’s Toolkit CD):</p> <ul style="list-style-type: none"> • Fact Review pages • Application pages • Calculator Activities
156	Add Integers	<ul style="list-style-type: none"> • Add integers using manipulatives • Add integers using a number line • Write an addition equation for a word problem 	
157	Subtract Integers	<ul style="list-style-type: none"> • Subtract integers using manipulatives • Subtract integers using a number line • Write a subtraction equation for a word problem 	
158	Add & Subtract Integers	<ul style="list-style-type: none"> • Subtract integers • Add and subtract integers using a number line and manipulatives • Demonstrate an understanding of the relationship between subtracting an integer and adding its opposite • Write an equation for a word problem 	
159	More Integers	<ul style="list-style-type: none"> • Solve real-life word problems • Add and subtract integers • Write an equation for a word problem 	
160	Multiply Integers	<ul style="list-style-type: none"> • Multiply integers using manipulatives • Write an equation for a word problem 	
161	Multiply & Divide Integers	<ul style="list-style-type: none"> • Multiply and divide integers • Write an equation for a word problem 	
162	Mixed Review	<ul style="list-style-type: none"> • Add, subtract, multiply, and divide integers • Subtract integers by adding the opposite • Apply the order of operations to integers 	
163	Coordinate Plane	<ul style="list-style-type: none"> • Graph points on a four-quadrant coordinate plane • Write ordered pairs to identify points on a four-quadrant coordinate plane 	
164	Chapter 17 Review	<ul style="list-style-type: none"> • Review 	
165	Chapter 17 Test Cumulative Review	<ul style="list-style-type: none"> • Read and interpret a double line graph • Identify the geometric figure • Find the area of a parallelogram • Find the surface area and volume of a rectangular prism • Calculate the unknown measure of an angle • Estimate an answer • Solve fraction problems 	