

Knowre Math: **Grade 6** Curriculum

Chapter 1 Whole Numbers

| Lesson | Topic | TEKS |
|---|--------------------------------------|-----------------|
| 1-1 Dividing Using the Standard Algorithm | A) Long Division | 5.3.C |
| | B) Equivalent Divisions | |
| | C) Horizontal Division | |
| 1-2 Divisibility Tests | A) Divisibility Tests | 5.3.C |
| 1-3 Multiples and Factors | A) Multiples | |
| | B) Least Common Multiples | |
| | C) Factors | |
| | D) Greatest Common Factors | |
| 1-4 Exponents and the Order of Operations | A) Multiplication Symbols | 6.7.A, 6.7.C |
| | B) Defining Powers | |
| | C) Writing Expressions as Powers | |
| | D) Evaluating Powers | |
| | E) Missing Values in Power Equations | |
| | F) Order of Operations | |
| 1-5 Prime Factorization | A) Prime and Composite Numbers | 6.7.A |
| | B) Prime Factorization | |
| | C) Greatest Common Factors | |
| | D) Least Common Multiples | |

Chapter 2 Fractions and Decimals

| Lesson | Topic | TEKS |
|--------------------------------------|---|-------|
| 2-1 Fractions | A) Fractions on Number Lines | 6.2.C |
| | B) Whole Numbers as Fractions | |
| | C) Equivalent Fractions | |
| | D) Comparing Fractions | |
| | E) Simplifying Fractions | |
| | F) Mixed Numbers as Improper Fractions | |
| 2-2 Adding and Subtracting Fractions | A) Adding and Subtracting Fractions with Common Denominators | 5.3.H |
| | B) Adding and Subtracting Fractions with Different Denominators | |

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Chapter 2 Fractions and Decimals (cont...)

| Lesson | Topic | TEKS |
|---|--|------------------------|
| 2-3 Multiplying and Dividing Fractions | A) Multiplying Fractions | 6.3.A, 6.3.E, 6.7.A |
| | B) Powers of Nonnegative Fractions | |
| | C) Reciprocals | |
| | D) Dividing Fractions | |
| 2-4 Adding and Subtracting Decimals | A) Decimals on Number Lines | 5.3.K, 6.2.C, 6.2.D |
| | B) Representing Repeating Decimals | |
| | C) Ordering Decimals | |
| | D) Adding Decimals | |
| | E) Subtracting Decimals | |
| 2-5 Multiplying and Dividing Decimals | A) Multiplying Decimals | 6.3.E, 6.7.A |
| | B) Powers of Nonnegative Decimals | |
| | C) Dividing Decimals | |
| 2-6 Order of Operations with Rational Numbers | A) Terminating Decimals as Fractions | 6.2.D, 6.4.G |
| | B) Order of Operations with Nonnegative Rational Numbers | |

Chapter 3 Basics of Algebra

| Lesson | Topic | TEKS |
|---|--|---------------------------|
| 3-1 Variables and Expressions | A) Parts of Variable Expressions | 6.7.B |
| | B) Writing Variable Expressions | |
| 3-2 Operations and Variable Expressions | A) Omitting Multiplication Symbols with Variables | 6.7.C |
| | B) Understanding Coefficients | |
| | C) Evaluating Variable Expressions | |
| 3-3 Properties of Operations | A) Commutative Property | 6.7.C, 6.7.D |
| | B) Associative Property | |
| | C) Using the Properties to Multiply Terms | |
| | D) Identity Property | |
| 3-4 Distributive Property | A) Distributive Property | 6.2.E, 6.7.C, 6.7.D |
| | B) Rewrite Sums and Differences with the Distributive Property | |

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Chapter 4 Equations and Inequalities

| Lesson | Topic | TEKS |
|---------------------------------------|---|---------------------------------|
| 4-1 Equations | A) Identifying Expressions and Equations | 6.7.B, 6.7.C, 6.10.A, 6.10.B |
| | B) Writing Equations | |
| | C) Solutions of Equations | |
| 4-2 Solving One-Step Equations I | A) Subtraction Property of Equaility | 6.9.A, 6.10.A |
| | B) Addition Property of Equaility | |
| 4-3 Solving One-Step Equations II | A) Division Property of Equaility | 6.10.A |
| | B) Multiplication Property of Equaility | |
| 4-4 Writing and Graphing Inequalities | A) Writing Inequalities from Verbal Expressions | 6.10.A, 6.10.B |
| | B) Solutions of Inequalities | |
| | C) Writing Inequalities from Number Lines | |
| | D) Graphing Inequalities | |
| 4-5 Solving One-Step Inequalities | A) Subtraction Property of Inequality | 6.9.A, 6.9.B, 6.10.A |
| | B) Addition Property of Inequality | |
| | C) Multiplication Property of Inequality | |
| | D) Division Property of Inequality | |

Chapter 5 Ratios and Rates

| Lesson | Topic | TEKS |
|---------------------------|--|-------------------------------|
| 5-1 Ratios | A) Writing Ratios | 6.4.B, 6.4.C |
| | B) Simplifying Ratios | |
| | C) Equivalent Ratios | |
| 5-2 Rates and Conversions | A) Unit Rates | 6.4.B, 6.4.D, 6.4.G, 6.4.H |
| | B) Conversion Factors | |
| | C) Unit Conversions within a System | |
| | D) Unit Rates and Dimensional Analysis | |
| 5-3 Percents | A) Writing Percents as Fractions | 6.4.E, 6.4.G, 6.5.B, 6.5.C |
| | B) Writing Fractions as Percents | |
| | C) Writing Percents as Decimals | |
| | D) Writing Decimals as Percents | |
| | E) Percent Equations | |

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Chapter 6 Integers

| Lesson | Topic | TEKS |
|--|---|-----------------|
| 6-1 Introduction to Integers | A) Classifying Numbers | 6.2.A, 6.2.C |
| | B) Representing Situations as Integers | |
| | C) Integers on Number Lines | |
| | D) Comparing Integers | |
| | E) Distance on a Number Line | |
| 6-2 Opposites and Absolute Value | A) Opposites | |
| | B) Absolute Values | |
| 6-3 Adding and Subtracting Integers on a Number Line | A) Adding Integers on Number Lines | 6.3.C |
| | B) Subtracting Integers on Number Lines | |

Chapter 7 Coordinate Plane and Two Variable Equations

| Lesson | Topic | TEKS |
|--|---|-------------------------------|
| 7-1 Coordinate Plane | A) Identifying Quadrants and Axes of Coordinate Planes | 6.11 |
| | B) Graphing Points | |
| | C) Writing the Coordinates of Points | |
| | D) Identifying Quadrants and Axes from Coordinates | |
| 7-2 Distance and Reflections on a Coordinate Plane | A) Counting to Find the Distance Between Points | |
| | B) Using Absolute Value to Find the Distance Between Points | |
| | C) Reflections Over the x-axis | |
| | D) Reflections Over the y-axis | |
| 7-3 Relations | A) Representing Relations in Different Forms | 6.5.A, 6.6.A |
| | B) Input and Output | |
| | C) Independent and Dependent Variables | |
| 7-4 Two-Variable Equations | A) Evaluating Functions | 5.4.C, 6.5.A, 6.6.B, 6.6.C |
| | B) Graphing Linear Functions | |
| | C) Writing Linear Functions | |

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Chapter 8 Two- and Three-Dimensional Geometry

| Lesson | Topic | TEKS |
|--|---|-------------------------------|
| 8-1 Area of Rectangles and Squares | A) Areas of Rectangles | 6.8.C, 6.8.D, 7.9.C |
| | B) Areas of Squares | |
| 8-2 Area of Triangles | A) Bases and Heights of Triangles | 6.8.B, 6.8.C, 6.8.D, 7.9.C |
| | B) Areas of Triangles | |
| 8-3 Area of Parallelograms and Trapezoids | A) Areas of Parallelograms | 6.8.B, 6.8.C, 6.8.D, 7.9.C |
| | B) Areas of Trapezoids | |
| 8-4 Surface Area of Prisms and Pyramids Using Nets | A) Nets of Solids | 7.9.D |
| | B) Surface Areas of Prisms and Pyramids from Nets | |
| | C) Surface Areas of Prisms | |
| 8-5 Volume of Rectangular Prisms | A) Volume from Cubic Units | 6.8.C, 6.8.D |
| | B) Volumes of Right Prisms | |

Chapter 9 Displays of Data

| Lesson | Topic | TEKS |
|--------------------------------|---|--------------------------|
| 9-1 Introduction to Statistics | A) Statistical Questions | 6.13.B |
| | B) Characteristics of Data Sets | |
| | C) Frequency Tables | |
| | D) Characteristics of Tables | |
| 9-2 Dot Plots | A) Characteristics of Dot Plots | 6.12.A, 6.13.A |
| | B) Dot Plots, Data Sets, and Frequency Tables | |
| | C) Finding the Number of Observations within a Range of Numbers | |
| | D) Finding the Minimum and Maximum Values | |
| | E) Finding the Mode | |
| 9-3 Histograms | A) Characteristics of Histograms | 6.3.B, 6.12.A, 6.13.A |
| | B) Bins | |
| | C) Histograms, Data Sets, and Frequency Tables | |
| | D) Finding the Number of Observations within a Range of Numbers | |
| | E) Values in a Histogram | |

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Chapter 10 Distributions of Data

| Lesson | Topic | TEKS |
|------------------------------|--|-------------------|
| 10-1 Measures of Center | A) Mean | 6.12.C |
| | B) Median | |
| | C) Mean and Median of Same Data Set | |
| 10-2 Measures of Variation | A) Range | 6.12.C |
| | B) MAD | |
| | C) Quartiles | |
| | D) IQR | |
| 10-3 Box Plots | A) Five-Number Summary | 6.12.A, 6.13.A |
| | B) Measures of Variation | |
| | C) Box Plots, Five-Number Summaries, and Data Sets | |
| | D) Distribution of Data in a Dot Plot | |
| 10-4 Shapes of Distributions | A) Shapes of Histograms | 6.12.B, 6.12.C |
| | B) Shapes of Dot Plots | |
| | C) Shape and Measure of Center | |
| | D) Measure of Center and Measure of Variation | |
| | E) Outliers and Measures of Center | |