

Math 6 COURSE DESCRIPTION

This course covers all typical Grade 6 math material, over 90 topics in all from arithmetic to equations to Geometry. Whether you are getting ahead of the curriculum, aiming for better grades, or preparing for the next level with deeper understanding of the concepts, this class will give you a solid foundations needed to succeed in school as the fundamental and important concepts will be taught in great details. Designed for all levels of learners from remedial to the advanced. (Material fee is due on the first day of class).

Homework: A page corresponds to each chapter lesson will be assigned. **Tests:** Chapter tests and exam at the end of course.

Chapter 1 - Number Patterns and Algebra

Lesson 1 - A Plan for Problem Solving

Lesson 2 - Divisibility Patterns

Lesson 3 - Prime Factors

Lesson 4 - Powers and Exponents

Lesson 5 - Order of Operations

Lesson 6 - Algebra: Variables and Expressions

Lesson 7 - Algebra: Solving Equations

Lesson 8 - Geometry: Area of Rectangles

Chapter 2 - Statistics and Graphs

Lesson 1 - Frequency Tables

Lesson 2 - Bar Graphs and Line Graphs

Lesson 3 - Circle Graphs

Lesson 4 - Making Predictions

Lesson 5 - Stem-and-Leaf Plots

Lesson 6 - Mean

Lesson 7 - Median, Mode, and Range

Lesson 8 - Analyzing Graphs

Chapter 3 - Adding and Subtracting Decimals

Lesson 1 - Representing Decimals

Lesson 2 - Comparing and Ordering Decimals

Lesson 3 - Rounding Decimals

Lesson 4 - Estimating Sums and Differences

Lesson 5 - Adding and Subtracting Decimals

Chapter 4 - Multiplying and Dividing Decimals

Lesson 1 - Multiplying Decimals by Whole Numbers

Lesson 2 - Multiplying Decimals

Lesson 3 - Dividing Decimals by Whole Numbers

Lesson 4 - Dividing by Decimals

Lesson 5 - Geometry: Perimeter

Lesson 6 - Geometry: Circumference

Chapter 5 - Fractions and Decimals

Lesson 1 - Greatest Common Factor

Lesson 2 - Simplifying Fractions

Lesson 3 - Mixed Numbers and Improper Fractions

Lesson 4 - Least Common Multiple

Lesson 5 - Comparing and Ordering Fractions

Lesson 6 - Writing Decimals as Fractions

Lesson 7 - Writing Fractions as Decimals

Chapter 6 - Adding and Subtracting Fractions

Lesson 1 - Rounding Fractions and Mixed Numbers

Lesson 2 - Estimating Sums and Differences

Lesson 3 - Adding and Subtracting Fractions with Like Denominators

Lesson 4 - Adding and Subtracting Fractions with Unlike Denominators

Lesson 5 - Adding and Subtracting Mixed Numbers

Lesson 6 - Subtracting Mixed Numbers with Renaming

Chapter 7 - Multiplying and Dividing Fractions

Lesson 1 - Estimating Products

Lesson 2 - Multiplying Fractions

Lesson 3 - Multiplying Mixed Numbers

Lesson 4 - Dividing Fractions

Lesson 5 - Dividing Mixed Numbers

Lesson 6 - Sequences

Chapter 8 - Algebra: Integers

Lesson 1 - Integers

Lesson 2 - Adding Integers

Lesson 3 - Subtracting Integers

Lesson 4 - Multiplying Integers

Lesson 5 - Dividing Integers

Lesson 6 - The Coordinate Plane

Chapter 9 - Algebra: Solving Equations

Lesson 1 - Properties

Lesson 2 - Solving Addition Equations

Lesson 3 - Solving Subtraction Equations

Lesson 4 - Solving Multiplication Equations

Lesson 5 - Solving Two-Step Equations

Lesson 6 - Functions

Lesson 7 - Graphing Functions

Chapter 10 - Ratio, Proportion, and Percent

Lesson 1 - Ratios

Lesson 2 - Solving Proportions

Lesson 3 - Scale Drawings and Models

Lesson 4 - Modeling Percents

Lesson 5 - Percents and Fractions

Lesson 6 - Percents and Decimals

Lesson 7 - Percent of a Number

Lesson 8 - Estimating with Percents

Chapter 11 - Probability

Lesson 1 - Theoretical Probability

Lesson 2 - Outcomes

Lesson 3 - Making Predictions

Lesson 4 - Probability and Area

Lesson 5 - Probability of Independent Events

Chapter 12 - Measurement

Lesson 1 - Length in the Customary System

Lesson 2 - Weight and Capacity in the Customary System

Lesson 3 - Length in the Metric System

Lesson 4 - Mass and Capacity in the Metric System

Lesson 5 - Changing Metric Units

Lesson 6 - Measures of Time

Chapter 13 - Geometry: Angles and Polygons

Lesson 1 - Angles

Lesson 2 - Using Angle Measure

Lesson 3 - Bisectors

Lesson 4 - Two-Dimensional Figures

Lesson 5 - Lines of Symmetry

Lesson 6 - Similar and Congruent Figures

Chapter 14 - Geometry: Measuring Area and Volume

Lesson 1 - Area of Parallelograms

Lesson 2 - Area of Triangles

Lesson 3 - Area of Circles

Lesson 4 - Three-Dimensional Figures

Lesson 5 - Volume of Rectangular Prisms

Lesson 6 - Surface Area of Rectangular Prisms