

Whole Numbers and Place Value Basics

Lesson 1: Understanding Whole Numbers and Place Value

Lesson Objective: Explore the fundamentals of whole numbers, including place value, the relationship between place values, and converting between standard and expanded form.

Exploring Powers of Ten

Lesson 2: Powers of Ten Basics

Lesson Objective: Develop a foundational understanding of powers of ten, including how they work, how to evaluate them, and how to write them with exponents.

Exploring Multiplication Mastery

Lesson 3: Mastering Multiplication Basics

Lesson Objective: Develop a strong foundation in multiplication, covering multiplication patterns, estimating products, and multiplying by 1-digit numbers.

Lesson 4: Advancing Multiplication Skills

Lesson Objective: Build on multiplication skills by multiplying 2-digit numbers by 2-digit numbers, 3-digit numbers, and larger numbers. Explore properties of multiplication and learn to choose numbers with specific products.

Mastering Division Mastery

Lesson 5: Fundamental Division Concepts



Lesson Objective: Develop a strong foundation in division, covering division patterns, estimation, and dividing multi-digit numbers by 1-digit numbers.

Lesson 6: Advanced Division Techniques

Lesson Objective: Build on division skills by dividing by 2-digit numbers using models, partial quotients, and solving word problems. Explore the relationship between multiplication and division.

Exploring Factors, Multiples, and LCM

Lesson 7: Identifying Factors

Lesson Objective: Students will learn how to identify factors of numbers, which are crucial for understanding the concept of LCM (Least Common Multiple).

Lesson 8: Prime and Composite Numbers

Lesson Objective: This lesson introduces students to prime and composite numbers as a foundation for further exploration of LCM.

Lesson 9: Prime Factorization and LCM

Lesson Objective: Students will delve into prime factorization, a key concept for finding the LCM. They'll understand how prime factors contribute to LCM calculations.

Lesson 10: Calculating the Least Common Multiple (LCM)

Lesson Objective: This lesson focuses on LCM, providing students with the necessary skills to find the least common multiple of two or more numbers. Word problems will reinforce their understanding of LCM in practical scenarios.

Mastering Numerical Expressions and Order of Operations

Lesson 11: Writing and Evaluating Numerical Expressions (One Operation)

Lesson Objective: Students will learn to write numerical expressions involving a single operation and evaluate them correctly, laying the foundation for understanding more complex expressions.



Lesson 12: Writing and Evaluating Numerical Expressions (Two Operations)

Lesson Objective: Building on the previous lesson, students will advance to writing and evaluating numerical expressions involving two operations. They will practice applying the correct order of operations.

Lesson 13: Understanding Order of Operations with Parentheses

Lesson Objective: This lesson emphasizes the importance of parentheses in numerical expressions. Students will learn how to evaluate expressions with parentheses and understand their impact on the order of operations.

Lesson 14: Mastering Complex Numerical Expressions with Parentheses and Brackets

Lesson Objective: Students will tackle numerical expressions containing both parentheses and brackets. They will learn to apply the correct order of operations, gaining confidence in handling intricate mathematical expressions.

Mastering Multi-Step Word Problems

Lesson 15: Writing Numerical Expressions for Word Problems

Lesson Objective: Learn to translate word problems into numerical expressions.
Activities: Practice writing numerical expressions based on given word problems.

Lesson 16: Solving word problems

Objective: Develop the skills needed to solve multi-step word problems.
Activities: Solve multi-step word problems that require multiple operations to find a solution.

Exploring Fractions and Mixed Numbers

Lesson 17: Understanding Fractions

Lesson Objective: Review the basics of fractions and their components.
Activities: Practice identifying the parts of a fraction and understand the concept of numerators and denominators.



Lesson 18: Equivalent Fractions and Mixed Numbers

Lesson Objective: Learn about equivalent fractions, mixed numbers, and how to convert between them.

Comparing Fractions

Lesson:19 Comparing Fractions

Lesson Objective: Develop the ability to compare fractions using various methods, including graphing on number lines, using benchmarks, comparing fractions with mixed numbers, and ordering fractions.

Adding and Subtracting Fractions with Unlike Denominators

Lesson :20 Estimating and Adding Fractions with Unlike Denominators

Lesson Objective: Learn how to estimate sums and differences of fractions using benchmarks and add fractions with unlike denominators using models.

Lesson 21: Subtracting Fractions with Unlike Denominators and Word Problems

Lesson Objective: Master the skill of subtracting fractions with unlike denominators using models, and apply this knowledge to solve word problems.

Activities: Engage in activities that involve estimating sums and differences using benchmarks, adding and subtracting fractions with unlike denominators using models, solving word problems, and practicing addition and subtraction sentences with fractions.

Adding and Subtracting Mixed Numbers

Lesson22: Adding and Subtracting Mixed Numbers

Lesson Objective: Learn how to add and subtract mixed numbers, including cases with unlike denominators, regrouping, and solving word problems. Practice these skills in real-world scenarios and complete addition and subtraction sentences with mixed numbers.

Understanding Fraction Multiplication



Lesson: 23 Introduction to Fraction Multiplication

Lesson Objective: Develop a foundational understanding of fraction multiplication, including multiplication by whole numbers and multiplication of two fractions. Choose and use various models, such as arrays, number lines, and visual representations, to grasp the concept of fraction multiplication.

Fraction Multiplication with Whole Numbers

Lesson: 24 Multiplying Fractions by Whole Numbers

Lesson Objective: Learn how to multiply fractions by whole numbers effectively and solve word problems involving this concept. Explore various strategies and real-world scenarios to understand the application of multiplying fractions by whole numbers.

Fraction Multiplication Essentials

Lesson 25: Basic Fraction Multiplication

Objective: Understand the fundamental concept of multiplying two fractions.

Activities: Explore how to multiply two fractions step-by-step and practice with various examples.

Lesson 26: Real-World Application

Objective: Apply fraction multiplication skills to solve word problems in practical situations.

Activities: Solve word problems that involve multiplying two fractions to find solutions to everyday scenarios.

Multiplying Mixed Numbers

Lesson 27: Introduction to Multiplying Mixed Numbers

Objective: Understand the basic concepts of multiplying mixed numbers.

Activities: Explore how to estimate products, multiply a mixed number by a whole number, and solve simple problems involving mixed number multiplication.

Lesson 28 Advanced Mixed Number Multiplication



Objective: Dive deeper into mixed number multiplication, including multiplying mixed numbers by fractions, multiplying two mixed numbers, and solving word problems.

Scaling by Fractions

Lesson 29: Scaling by Fractions

Objective: Learn how to scale whole numbers, fractions, and mixed numbers by fractions, and understand the concept of scaling using various examples.

Understanding Fraction Division

Lesson 30: Relate Division and Fractions

Lesson Objective: Understand the relationship between division and fractions, and solve word problems that involve fractions as division.

Activities: Engage in activities that help students grasp the concept of division in the context of fractions and solve word problems that require understanding fractions as division.

Lesson 31: Divide Fractions and Whole Numbers Using Models

Lesson Objective: Learn how to divide unit fractions by whole numbers and whole numbers by unit fractions using area models.

Activities: Practice division involving unit fractions and whole numbers by using visual representations and area models.

Dividing Unit Fractions and Whole Numbers

Lesson 32: Divide Unit Fractions and Whole Numbers

Lesson Objective: Learn how to divide unit fractions by whole numbers and whole numbers by unit fractions, and practice solving problems involving the division of unit fractions and whole numbers.

Activities: Engage in activities that teach the concept of dividing unit fractions by whole numbers and vice versa. Practice solving word problems related to these concepts.



Understanding Decimal Place Value

Lesson 33: Decimal Place Value Models

Lesson Objective: Develop an understanding of decimal place value through models and illustrations.

Activities: Explore various models and visual representations of decimal place value to grasp the concept effectively.

Lesson 34: Decimal Place Value in Practice

Lesson Objective: Apply the knowledge of decimal place value to real-world scenarios and problem-solving.

Activities: Engage in practical exercises and word problems that require using decimal place value skills.

Comparing and Ordering Decimals

Lesson 35: Comparing and Ordering Decimals

Lesson Objective: Develop the skills to compare, order, and round decimals accurately.

Activities: Engage in activities that involve comparing decimals using grids and number lines, putting decimal numbers in order, and solving word problems that require comparing, ordering, and rounding decimals.

Decimal and Fraction Conversion

Lesson 36: Converting Between Decimals and Fractions

Lesson Objective: Learn to convert between decimals and fractions, including mixed numbers, and understand the relationship between these representations.

Activities: Engage in activities that involve modeling decimals and fractions, converting fractions to decimals, converting mixed numbers to decimals, converting decimals to fractions, and converting decimals to mixed numbers.

Comparing Decimals and Fractions

Lesson 37: Comparing Decimals and Fractions



Lesson Objective: Develop the ability to compare and order decimals and fractions, including mixed numbers, using various methods.

Activities: Engage in activities that involve comparing decimals and fractions on number lines, comparing decimals and fractions directly, and putting a mix of decimals, fractions, and mixed numbers in order.

Decimal Addition and Subtraction

Lesson 38: Adding and Subtracting Decimal Numbers

Lesson Objective: Develop a foundational understanding of adding and subtracting decimal numbers, including the use of visual aids such as blocks and solving word problems.

Lesson 39: Estimating and Comparing Decimal Sums and Differences

Lesson Objective: Learn how to estimate sums and differences of decimals using rounding and benchmarks, and compare decimal sums and differences for various scenarios.

Multiplying Decimals by Powers of Ten

Lesson 40: Multiplying Decimals by Powers of Ten

Lesson Objective: Develop proficiency in multiplying decimals by powers of ten, including using exponents, multiplying by 0.1 or 0.01, and finding missing numbers in multiplication by powers of ten with decimals.

Multiplying Decimals by Whole Numbers

Lesson 41: Multiplying Decimals by One-Digit Whole Numbers

Lesson Objective: Learn to multiply decimals by one-digit whole numbers using different strategies, including blocks and the distributive property.

Lesson 42: Multiplying Decimals by Multi-Digit Whole Numbers and Word Problems



Lesson Objective: Develop proficiency in multiplying decimals by multi-digit whole numbers and solving word problems that require multiplication of decimals with whole numbers.

Decimal Multiplication Mastery

Lesson 43: Introduction to Decimal Multiplication

Lesson Objective: Understand the concept of multiplying decimals and learn to estimate products of decimals.

Activities: Engage in activities to estimate products of decimals and explore the basic concepts of decimal multiplication.

Lesson 44: Decimal Multiplication Techniques

Lesson Objective: Explore various techniques for multiplying decimals, including using grids and understanding where the decimal point goes in the product.

Decimal Division and Powers of Ten

Lesson 45: Understanding Decimal Division with Powers of Ten

Lesson Objective: Develop an understanding of how to divide decimals by powers of ten and explore division patterns over increasing place values.

Lesson 46: Decimal Division with Powers of Ten and Decimals

Lesson Objective: Learn to divide by a power of ten with decimals and explore the application of division by 0.1 or 0.01.

Mastering Decimal Division

Lesson 47: Estimating Decimal Quotients

Lesson Objective: Students will learn how to estimate decimal quotients, allowing them to quickly assess the reasonableness of their answers in real-world scenarios.

Lesson 48: Understanding Decimal Division with Models



Lesson Objective: Using blocks and area models, students will grasp the concept of decimal division and complete equations, reinforcing their understanding of the process.

Lesson 49: Solving Real-World Problems with Decimal Division

Lesson Objective: This lesson focuses on applying decimal division to word problems, enabling students to interpret and solve everyday scenarios involving decimal numbers.

Mastery of Mixed Decimal Operations

Lesson 50: Performing All Decimal Operations

Lesson Objective: Students will learn to add, subtract, multiply, and divide decimals fluently, demonstrating a strong grasp of these fundamental operations.

Lesson 51: Solving Real-World Problems with Mixed Decimal Operations

Lesson Objective: Through word problems, students will apply their knowledge of mixed decimal operations to practical scenarios, reinforcing their problem-solving skills.

Lesson 52: Evaluating Equations with Mixed Decimal Operations

Lesson Objective: Students will develop the ability to assess and determine the validity of equations involving mixed decimal operations, emphasizing the importance of order of operations in these calculations.

Mastering Money Math

Lesson 53: Money Operations Basics

Lesson Objective: Learn the fundamentals of adding, subtracting, multiplying, and dividing money amounts.

Lesson 54: Money Problem Solving

Lesson Objective: Apply money operations to solve multi-step word problems, work with price lists, unit prices, and determine the number of each type of coin.

Mastering Customary Unit Conversions



Lesson 55: Comparing and Converting Customary Units of Length

Lesson Objective: Students will develop the skills to compare and convert customary units of length, such as inches, feet, yards, and miles, in order to solve real-world problems involving distance.

Lesson 56: Comparing and Converting Customary Units of Weight and Volume

Lesson Objective: Students will expand their knowledge to compare and convert customary units of weight (ounces, pounds, tons) and volume (cups, pints, quarts, gallons), enabling them to tackle practical problems related to weight and capacity.

Lesson 57: Solving Multi-Step Problems with Customary Unit Conversions

Lesson Objective: This lesson challenges students with multi-step problems that involve conversions between customary units of length, weight, and volume. It reinforces their proficiency in unit conversions and problem-solving abilities.

Exploring Metric Units

Lesson 58: Comparing and Converting Metric Units of Length

Lesson Objective: Students will gain a thorough understanding of metric units of length, including millimeters, centimeters, meters, and kilometers, allowing them to effectively compare and convert these units.

Lesson 59: Comparing and Converting Metric Units of Weight and Volume

Lesson Objective: Students will extend their knowledge to metric units of weight (milligrams, grams, kilograms) and volume (milliliters, liters), mastering the art of converting between these units for various real-life scenarios.

Lesson 60: Solving Multi-Step Problems with Metric Unit Conversions

Lesson Objective: This lesson challenges students with complex multi-step problems that involve conversions between metric units of length, weight, and volume. It reinforces their proficiency in metric unit conversions and complex problem-solving.

Exploring Number Patterns



Lesson 61: Identifying and Completing Number Patterns

Lesson Objective: Develop the ability to recognize and complete number patterns using various rules and operations, including addition, subtraction, multiplication, and division.

Lesson 62: Applying Number Patterns to Real-World Scenarios

Lesson Objective: Apply knowledge of number patterns to solve word problems and practical situations. Compare different patterns and use them to analyze and interpret data.

Exploring the Coordinate Plane

Lesson 63: Introduction to the Coordinate Plane

Lesson Objective: Students will learn the fundamentals of the coordinate plane, including the concepts of x and y-axes, quadrants, and how to read coordinates.

Lesson 64: Graphing Points and Analyzing Relationships

Lesson Objective: This lesson focuses on teaching students how to graph points on a coordinate plane and analyze relationships between them, laying the foundation for more complex concepts.

Lesson 65: Navigating and Following Directions on a Coordinate Plane

Lesson Objective: In this lesson, students will learn to follow directions and locate points on a coordinate plane. They will develop their spatial reasoning skills and apply them to various scenarios, enhancing their proficiency in understanding and using the coordinate plane as a valuable tool for problem-solving.

Exploring Variable Expressions and Equations

Lesson 66: Introducing Variable Expressions

Lesson Objective: Students will learn the basics of variable expressions, how to write them, and gain an understanding of how variables represent unknown values in mathematical situations.

Lesson 67: Solving Word Problems with Variable Expressions



Lesson Objective: This lesson focuses on applying variable expressions to real-world scenarios. Students will learn how to translate word problems into variable expressions and solve them to find solutions.

Lesson 68: Exploring Two-Variable Relationships and Equations

Lesson Objective: Students will delve into the world of two-variable relationships and equations. They will learn to write equations that involve two variables and understand the concepts of independent and dependent variables, as well as how to graph these relationships.

Exploring Data and Graphs

Lesson 69: Understanding Line Plots

Lesson Objective: Students will learn to interpret line plots, understanding how they represent data and enable the visualization of trends within a dataset.

Lesson 70: Creating Line Plots with Fractions

Lesson Objective: This lesson focuses on creating and interpreting line plots with fractions, emphasizing the ability to represent fractional data points accurately.

Lesson 71: Mastering Line and Bar Graphs

Lesson Objective: Students will gain proficiency in interpreting both line and bar graphs, understanding the differences in their applications and how to extract meaningful information from them.

Lesson 72: Analyzing Frequency Charts and Stem-and-Leaf Plots

Lesson Objective: This lesson covers the interpretation of frequency charts, emphasizing both one-step and multi-step problems. Additionally, students will learn to interpret and create stem-and-leaf plots, enhancing their data analysis skills.

Lesson 73: Exploring Scatter Plots and Predictions

Lesson Objective: Students will delve into scatter plots, understanding how to interpret them, identify trends, and make predictions based on the patterns observed.

Exploring Statistics

Lesson 74: Understanding Measures of Central Tendency

Lesson Objective: Students will learn about the mode, mean, and median as measures of central tendency and practice finding these values from sets of data, fostering a deep understanding of statistical analysis.

Lesson 75: Understanding Range

Lesson Objective: In this lesson, students will delve into understanding the concept of range in statistics, exploring how it represents the variation within a dataset and practicing calculating it in various scenarios.

Lesson 76: Applying Statistical Concepts

Lesson Objective: Students will apply their knowledge of mode, mean, median, and range to solve real-world problems and interpret charts and graphs, enhancing their ability to analyze and draw insights from data representations.

Lesson 77: Interpreting Charts and Graphs

Lesson Objective: In this lesson, students will learn how to interpret charts and graphs to extract statistical information, enabling them to analyze data visually and gain proficiency in reading various types of data representations.

Triangle Classification

Lesson 78: Understanding Triangle Types

Lesson Objective: Students will learn to distinguish between acute, obtuse, and right triangles, recognizing the significance of various angles within these geometric shapes.

Lesson 79: Identifying Scalene, Isosceles, and Equilateral Triangles

Lesson Objective: In this lesson, students will delve into triangle classification by identifying and understanding the properties of scalene, isosceles, and equilateral triangles, allowing them to categorize triangles based on their side lengths.

Exploring Quadrilaterals

Lesson 80: Identifying Quadrilaterals

Lesson Objective: Understand the relationships between various types of quadrilaterals and learn to classify them accurately.

Lesson 81: Drawing and Describing Quadrilaterals

Lesson Objective: Practice drawing and describing quadrilaterals while exploring the properties and characteristics that distinguish them.

Polygon Properties

Lesson 82: Understanding Polygons

Lesson Objective: Learn what defines a polygon, understand the number of sides in various polygons, and differentiate between polygons and non-polygons.

Lesson 83: Regular and Irregular Polygons

Lesson Objective: Explore the concepts of regular and irregular polygons, sort polygons into Venn diagrams, and delve into the properties that distinguish different types of polygons.

Exploring Perimeter

Lesson 84: Perimeter with Various Side Lengths

Lesson Objective: Learn how to calculate the perimeter of polygons with whole number side lengths, including rectangles, squares, and irregular shapes.

Lesson 85: Perimeter with Decimals and Fractions

Lesson Objective: Extend your understanding of perimeter to include shapes with decimal and fractional side lengths. Explore how to calculate the perimeter accurately in these scenarios, and understand the practical applications of such calculations.

Exploring Area and Perimeter

Lesson 86: Area of Rectangles and Squares

Lesson Objective: Understand how to calculate the area of squares and rectangles, including those with fractional side lengths.

Lesson 87: Area of Compound Figures

Lesson Objective: Learn how to find the area of compound figures by breaking them down into simpler shapes and calculating their individual areas.

Lesson 88: Area and Perimeter Word Problems

Lesson Objective: Apply your knowledge of area and perimeter to solve word problems that involve real-world scenarios, reinforcing the practical applications of these concepts.

Exploring Volume

Lesson 89: Volume of Irregular Figures

Lesson Objective: Students will learn to find the volume of irregular figures by breaking them down into unit cubes, gaining an understanding of volume measurement.

Lesson 90: Volume of Rectangular Prisms

Lesson Objective: In this lesson, students will focus on finding the volume of rectangular prisms using unit cubes, helping them grasp the concept of volume and apply it to regular shapes.

Lesson 91: Applying Volume in Word Problems

Lesson Objective: Students will apply their understanding of volume to solve word problems involving rectangular prisms, reinforcing their ability to use this concept in practical situations.

Lesson 92: Exploring Volume with Different Units

Lesson Objective: In this lesson, students will compare and apply cubic units to measure volume, preparing them to work with various units of volume measurement.



Mastering Financial Literacy

Lesson 93: Understanding Income and Taxes

Lesson Objective: Students will comprehend the concepts of income, payroll taxes, and deductions by examining pay stubs, enabling them to calculate net income accurately and understand the financial implications of taxation.

Lesson 94: Applying Taxation Knowledge

Lesson Objective: In this lesson, students will apply their understanding of income and payroll taxes to solve word problems, honing their ability to calculate net income and deductions in real-world scenarios.

Lesson 95: Managing Finances and Budgeting

Lesson Objective: Students will explore sales and property taxes, grasp the different types of taxes, and delve into understanding gross and net income. They will also learn the essentials of budgeting, including balancing income, expenses, and savings.

Lesson 96: Financial Records and Payment Methods

Lesson Objective: This lesson focuses on financial record-keeping, including reading and maintaining records. Students will also evaluate various payment methods, understanding their advantages and disadvantages, equipping them to make informed financial decisions.