Course Description:
Semester B of grade 4 math has learners continuing to work with fractions. They will learn to multiply fractions and convert them to decimals. Students will also begin to learn to equivalent measurements of length, weight, mass, and capacity. They will also learn helpful skills in understanding time, distance, and money. Students will develop an understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Lessons on rectangles, line plots, angles, figure drawing, polygons, and symmetry will be taught. Semester B continues to use varied forms of instruction that allow students to learn these skills in a practical manner.

Materials needed: Colored pencils, crayons or thin markers, Calculator (handheld or online), Ruler, and Scissors, protractor, scale (optional)

Module	Lesson Title	Objectives
7	Fraction Multiplication	• Identify solutions on a number line.
	Fraction Multiplication Using Visual Models	• Use visual models to represent word problems with fractions.
	Multiplying a Whole Number by a Fraction	• Multiply a fraction by a whole number.
	Using Multiplication to Solve Word Problems With Fractions	• Solve word problems involving multiplication of whole numbers and fractions.
	Fractions With Denominators of 10 and 100	• Identify fractions with denominators of 10. • Identify fractions with denominators of 100.
	Comparing Tenths and Hundredths	• Use grids to compare fractions with denominators 10 and 100.

Module	Lesson Title	Objectives
		• Write equivalent fractions with denominators 10 and 100.
	Add Tenths and Hundredths	• Add fractions with denominators 10 and 100.
	Identifying Fractions as Division	• Relate division to fractions.
	Fractions as Decimals	• Write decimals to the hundredths place.
	Decimals on Number Lines	• Locate decimals on a number line.
	Comparing Fractions to Decimals	• Compare fractions to decimals.
8	Compare Decimals Using Area Models	• Compare decimals using area models.
	Compare Decimals Using Decimal Circles	• Compare decimals using decimal circles.
	Compare Decimals Using Number Lines	• Compare decimals using number lines and meter sticks.
	Explaining Decimal Comparisons	• Demonstrate and explain the reasonableness of comparisons.
	Represent Equivalent Measures of Customary Units of Length	• Use tables to represent equivalent measurements.

Module	Lesson Title	Objectives
	Measuring With Inches	• Measure, compare, and estimate length in inches, feet, yards, miles.
	Measuring and Converting Length Measurements	• Measure, compare, and estimate length in inches, feet, yards, miles. • Compare lengths by converting measurements from smaller to larger units and from larger units to smaller units.
	Estimating Measurements of Length	• Measure, compare, and estimate length in kilometers, meters, and centimeters. • Measure, compare, and estimate length in inches, feet, yards, miles.
	Measuring Weight and Mass	• Measure, compare, and estimate weight and mass in, pounds, ounces, tons, kilograms, or grams. • Select and use appropriate tools to measure temperature.
	Equivalent Measurements of Weight	• Use tables to represent equivalent measurements.
	Weight Conversions	• Compare weights and masses by converting measurements from smaller to larger units and from larger units to smaller units.
	Problem Solving and Estimating Weight	• Solve word problems involving masses of objects. • Use diagrams to represent measurement quantities with a scale. • Measure, compare, and estimate weight and mass in, pounds, ounces, tons, kilograms, or grams.
9	Liters and Milliliters	• Measure and compare capacity in liters, milliliters, ounces, cups, pints, quarts and gallons.
	Volume Conversions	• Measure and compare capacity in liters, milliliters, ounces, cups, pints, quarts and gallons. • Compare capacities by converting measurements from smaller to larger units and from larger units to smaller units.
	Solving Problems About Volume	• Solve word problems involving liquid volume.
	What is Time?	• Measure and compare time in hours, minutes and seconds.
	Solving Elapsed Time Problems	• Solve word problems involving intervals of time.

Module	Lesson Title	Objectives
	Solving Problems With Time Conversions	• Solve word problems that apply time conversions.
	Solving Problems With Time and Distance	• Solve word problems involving time and distance.
	Money Conversions	• Express monetary amounts from a larger unit in terms of a smaller unit.
	Solving Problems With Money	• Solve word problems involving money.
	Estimating With Money	• Estimate money to solve word problems.
	Money as Fractions	• Using equivalent measurements, solve problems with fractions and decimals.
10	The Rectangle	• Identify length and width of rectangles. • Construct rectangles and label the parts.
	Perimeter of a Rectangle	• Find the perimeter of a rectangle.
	Area of Rectangles	• Find the area of rectangles by covering them with unit squares or by counting squares in models. • Find the area of a rectangle, given its length and width.
	Area and Perimeter	• Given the area or perimeter, find either the length or the width of a rectangle.
	Measuring Inches	• Measure objects up to an eighth of an inch.
	Line Plots	• Read line plots and represent measurements on a line plot.
	Problem Solving with Line Plots	• Add and subtract fractions based on data from a line plot.

Module	Lesson Title	Objectives
	Rays	• Define and name rays.
	Angles	• Define and name angles.
	Angles and Circles	• Identify angles by using circles. • Use word problems to explore one-degree turns.
11	Types of Angles	• Identify types of angles (acute, obtuse, right).
	Measuring Angles	• Use a protractor to measure angles to the nearest degree.
	Constructing Angles	• Construct angles using a protractor and straight edge.
	Adding Angles	• Find the sum of two angles.
	Subtracting Angles	• Decompose angles into smaller parts.
	Writing Equations	• Use equations to express the sum and difference of angles.
	Drawing Geometric Basics	• Identify and draw points, lines, segments, rays, angles.
	Parallel and Perpendicular Lines	• Identify the characteristics of perpendicular and parallel lines. • Draw perpendicular and parallel lines.
	Two-Dimensional Shapes	• Identify, describe, and categorize common 2-dimensional shapes.
12	Triangles	• Identify types of angles (acute, obtuse, right).
	Quadrilaterals	• Identify the attributes of quadrilaterals.
	Polygons	• Identify and describe polygons.

Module	Lesson Title	Objectives
	Symmetry in Shapes	• Define symmetry. • Identify the line of symmetry in figures.
	Lines of Symmetry	• Draw lines of symmetry in figures.
	Tessellation	• Create tessellations.