PLANNED INSTRUCTION

A PLANNED COURSE FOR:

Mathematics

Curriculum writing committee:

Grade Level: Fourth Grade

Date of Board Approval: _2024_____

Course Weighting: Mathematics Grade 4

Chapter Level Tests	**40%**
Lesson Level Quizzes	**25%**
Homework/Classwork	**10%**
Performance Tasks	**25%**
Total	**100%**

Curriculum Map

Overview:
In grade 4, instructional time should focus on five critical areas: numbers and operations in base tens, numbers and operations with fractions, operations and algebraic thinking, geometry, and measurement and data.

Goals:

1. **Marking Period One: Over a 45-day period of time, students will aim to understand:**
   UNIT 1: Numbers and Operations in Base Ten
   - Place-value and numeration concepts to compare, find equivalencies, and round
   - How to use operations to solve problems - Addition and Subtraction
   - To use operations to solve problems - Multiply up to four digits by 1 digit
   - To use operations to solve problems - Multiply two two-digit numbers
2. **Marking Period Two: Over a 45-day period of time, students will aim to understand:**
   UNIT 2: Operations and Algebraic Thinking
   - Develop and apply number theory concepts to represent numbers in various ways
   - Recognize, describe, extend, create, and replicate a variety of patterns
   - Use operations to solve problems - Division
   - Apply the area and perimeter formulas

   UNIT 3: Numbers and Operations - Fractions
   - Find equivalencies and compare fractions
3. **Marking Period Three: Over a 45-day period of time, students will aim to understand:**
   UNIT 3: Numbers and Operations - Fractions
   - Solve problems involving fractions and whole numbers
   - Use operations to solve problems involving decimals, including converting between fractions; and compare decimal fractions

   UNIT 4: Geometry

- List properties, classify, draw, and identify geometric figures in two dimensions

UNIT 5: Measurement and Data

- Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter

4. **Marking Period Four: Over a 45-day period of time, students will aim to understand:**

UNIT 5: Measurement and Data

- Represent and interpret data
- Use appropriate tools and units to sketch an angle and determine angle measurements.

UNIT 6: Getting ready for 5th grade

- Describe a set of data using mean, median, mode, and range
- Make and interpret stem and leaf plots with whole numbers
- Use the order of operations to find the value of expressions
- Locate points on a grid
- Round decimal amounts, including money amounts, to the nearest whole number or dollar

Textbook and Supplemental Resources:
GoMath (2023)

IXL

Unit 1 : Numbers and Operations in Base Ten **Time Range in Days:** 45 days

Overview: To generalize place-value understanding for multi-digit whole numbers. Use place-value understanding and properties of operations to perform multi-digit arithmetic.

Standards Addressed:
CC.2.1.4.B.1, CC.2.1.4.B.2, CC.2.2.4.A.1

Goal #1: Apply place-value and numeration concepts to compare, find equivalencies, and round

Time Range in Days: 10 days

Eligible Content

- M04.A-T.1.1.1 Demonstrate an understanding that in a multi-digit whole number (through 1,000,00), a digit in one place represents ten times what it represents in the place to its right.
- M04.A-T.1.1.2 Read and write whole numbers in expanded form, standard form, and word form through 1,000,000
- M04.A-T.1.1.3 Compare two multi-digit numbers through 1,000,000 based on meanings of the digits in each place, using >, =, and < symbols
- M04.A-T.1.1.4 Round multi-digit whole numbers (through 1,000,000) to any place

Objectives: (Students will be able to)	**Core Activities and Corresponding Instructional Methods:**
● Describe the value of a digit in a number up to 1,000,000 (DOK 2) ● Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right (DOK 2)	**Go Math** - Chapter 1 Lesson 1 Place Value Relationships **IXL** - A. Place Value Lesson: 1 - Place Value Models Lesson: 2 - Place Value Names Lesson: 3 - Relationships between place values Lesson: 4 - Value of a digit Lesson: 9 - Place value word problems Lesson: 10 - Convert between place values
● Read, write, and compare multi-digit whole numbers using standard, expanded, and word form (DOK 1)	**Go Math** - Chapter 1 Lesson 2 Read and Write Numbers **IXL** - A.Place Value Lesson: 5 - Convert between standard and expanded form Lesson: 6 - Writing Numbers up to one million: convert between words and digits Lesson: 7 - Spell word names for numbers up to one million

	Lesson: 8 - Writing numbers up to one billion: convert between words and digits
● Compare whole numbers through 1,000,000 using >, <, and = symbols (DOK 2) ● Order whole numbers through 1,000,000 from least to greatest and greatest to least (DOK 2)	**Go Math** - Chapter 1 Lesson 3 Compare and Order Numbers **IXL** - B. Ordering and Comparing Lesson: 1 - Compare numbers up to one million Lesson: 2 - Compare Numbers up to one billion Lesson: 3 - Compare numbers in tables Lesson: 4 - Order Numbers up to one million Lesson: 5 - Find the order
● Round multi-digit numbers through 1,000,000 to any place (DOK 1)	**Go Math** - Chapter 1 Lesson 4 Round Numbers **IXL** - C. Rounding Lesson: 1 - Rounding: up to hundred thousands place Lesson: 2 - Rounding: up to one millions place Lesson: 3 - Round a number to any place: up to hundred thousands Lesson: 4 - Rounding input/output tables Lesson: 5 - Rounding Puzzles

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes
- Teacher observations, questions, discussions

Summative Assessments:
- Chapter 1 Common Assessment; Performance Task #1

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math

- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #2: To use operations to solve problems - Addition and Subtraction

Time Range in Days: 8 days

Eligible Content:

- M04.A-T.2.1.1 Add and subtract multi-digit whole numbers (limit sums and subtrahends up to and including 1,000,000)
- M04.A-T.2.1.4 Estimate the answer to addition, subtraction

Objectives: (Students will be able to)	**Core Activities Corresponding Instructional Methods:**
● Fluently add whole numbers with sums to 1,000,000 (DOK 1)	**Go Math -** Chapter 2 Lesson 2 Use Place Value to Add **IXL -** D. Addition Lesson 3: Add two multi-digit numbers Lesson 4: Add two multi-digit numbers: word problems
● Fluently subtract whole numbers with subtrahends to 1,000,000 (including subtracting across zeros) (DOK 1)	**Go Math -** Chapter 2 Lesson 3 Use Place Value to Subtract **IXL -** E. Subtraction Lesson 3: Subtract two multi-digit numbers Lesson 4: Subtract two multi-digit numbers: word problems
● Estimate sums and differences by rounding addends, subtrahends, and minuends through six digits (DOK 2)	**Go Math** - Covered in Lessons 2.2 and 2.3 **IXL -** D. Addition Lesson 1: Estimate Sums Lesson 2: Estimate Sums: word problems E. Subtraction Lesson 1: Estimate Differences Lesson 2: Estimate Differences: word problems
● Solve multi-step word problems posed with whole numbers using addition and subtraction. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity (DOK 3	**Go Math** -Chapter 2 Lesson 5 Model and Solve Two-Step Addition and Subtraction Problems **IXL -** N. Multi Step Word Problems Lesson 1: Multi-Step Addition and Subtraction Word Problems

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes
- Teacher observations, questions, discussions

Summative Assessments:
- Chapter 2 Common Assessment; Performance Task #2

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #3: To use operations to solve problems - Multiply up to four digits by 1 digit
Time Range in Days: 16 days

Eligible Content:
- M04.A-T.2.1.2 Multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers.
- M04.B-O.1.1.1 Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication equations.
- M04.B-O.1.1.2 Multiply or divide to solve word problems involving multiplicative comparison, distinguishing multiplicative comparison from additive comparison.
- M04.B-O.1.1.3 Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.

Objectives: (Students will be able to)	**Core Activities Corresponding Instructional Methods:**
● Multiply a whole number of up to four digits by a one-digit whole number (DOK 1)	**Go Math -** Chapter 3 Lesson 3 Multiply Tens, Hundreds, and Thousands Chapter 3 Lesson 5 Multiply Using the Distributive Property Chapter 3 Lesson 6 Multiply Using

	Expanded Form Chapter 3 Lesson 7 Multiply Using Partial Products Chapter 3 Lesson 10 Multiply 3-Digit and 4-Digit Numbers with Regrouping **IXL -** H. Multiply by One-Digit Numbers Lesson 1 - Multiplication patterns over increasing place values Lesson 2 - Multiply by multiples of 10, 100, and 1,000 Lesson 6 - Multiply 1-digit numbers by 2-digit numbers: choose the area model Lesson 7 - Multiply 1-digit numbers by 2-digit numbers using area models Lesson 8 - Multiply using the distributive property Lesson 9 - Multiply 1-digit numbers by 2-digit numbers Lesson 10 - Multiply 1-digit numbers by 2-digit numbers: word problems Lesson 11 - Multiply 1-digit numbers by 2-digit numbers: multi-step word problems Lesson 12 - Multiply 1-digit numbers by 3-digit numbers: multi-step word problems Lesson 13 - Multiply 1-digit numbers by 3-digit or 4-digit numbers using area models Lesson 16 - Multiply 1-digit numbers by 3-digit or 4-digit numbers Lesson 17 - Multiply 1-digit numbers by 3-digit or 4-digit numbers: word problems
● Estimate the answer to multiplication problems using whole numbers through six digits (DOK 2)	**Go Math** - Chapter 3 Lesson 4 - Estimate Products by 1-Digit Numbers **IXL -** H. Multiply by One-Digit Numbers Lesson 3 -Estimate Products: multiply by one-digit numbers Lesson 4 - Estimate products word problems: identify reasonable answers
● Interpret a multiplication equation as a comparison. Represent verbal statements of multiplicative comparisons as multiplication comparisons. (DOK 3)	**Go Math -** Chapter 3 Lesson 1 - Multiplication Comparisons Chapter 3 Lesson 2 - Comparison Problems **IXL -** F. Multiplication Lesson 7 - Compare numbers using

	multiplication Lesson 8 - Compare numbers using multiplication: word problems Lesson 9 - Comparison word problems: addition or multiplication
● Solve multi-step word problems posed with whole numbers using multiplication. (DOK 3)	**IXL -** H**.** Multiply by One-Digit Numbers Lesson 18 - Multiply 1-digit numbers by 3-digit or 4 digit numbers: multi-step word problems

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes
- Teacher observations, questions, discussions

Summative Assessments:
- Chapter 3 Common Assessment; Performance Task #3

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #4: To use operations to solve problems - Multiply two two-digit numbers
Time Range in Days: 9 days
Eligible Content:
- M04.A-T.2.1.2 multiply a whole number of up to four digits by a one-digit whole number and multiply 2 two-digit numbers

Objectives: (Students will be able to)	**Core Activities Corresponding Instructional Methods:**
● Multiply two two-digit numbers (DOK 1)	**Go Math -** Chapter 4 Lesson 1 Multiply Tens Chapter 4 Lesson 3 Area Models and

	Partial Products Chapter 4 Lesson 5 Multiply with Regrouping Chapter 4 Lesson 6 Choose a Multiplication Method **IXL -** I. Multiply by 2 digit numbers Lesson 6 - Multiply 2-digit numbers by 2-digit numbers: choose the area models Lesson 7 - Multiply 2-digit numbers by 2-digit numbers using area models Lesson 10- Multiply a 2-digit number by a 2-digit number Lesson 11 - Multiply a 2-digit number by a 2-digit number: word problems
● Estimate the answer to multiplication problems with two-digit numbers by powers of 10 (DOK 2)	Covered in GoMath Chapter 4 Lessons 1, 5 and 6 **IXL -** I. Multiply by 2-digit numbers Lesson 1 Multiply by 10 or 100 Lesson 2 Multiply by multiples of 10

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes
- Teacher observations, questions, discussions

Summative Assessments:
- Chapter 4 Common Assessment; Performance Task #4

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Unit 2 : Operations and Algebraic Thinking **Time range in days:** 32 days

Overview: To use the four operations with whole numbers to solve problems. To gain a familiarity with factors and multiples as well as generate and analyze patterns.

Standards Addressed:
CC.2.2.4.A.1, CC.2.2.4.A.2, CC.2.2.4.A.4

Goal #1: Develop and apply number theory concepts to represent numbers in various ways

Goal #2: Recognize, describe, extend, create, and replicate a variety of patterns.

Time Range in Days: 9 days

Eligible Content:

- M04.B-O.2.1.1 Find all factor pairs for a whole number in the interval 1 through 100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the interval 1 through 100 is prime or composite.
- M04.B-O.3.1.1 Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.
- Determine the missing elements in a function table (limit to =,-, or x and to whole numbers or money).
- Determine the rule for a function given a table (limit to =, -, or x and to whole numbers)

Objectives: (Students will be able to)	**Core Activities Corresponding Instructional Methods:**
● Find all factors for a number (1-100) (DOK 1) ● Determine whether a number is a factor of a given number (DOK 1) ● Understand the relationship between factors and multiples and determine whether a number is a multiple of a given number (DOK 3)	**Go Math** Chapter 8 Lesson 1- Factors and Divisibility Chapter 8 Lesson 2 - Factors and Multiples **IXL** G. Factors and Multiples Lesson 3 - Identify Factors Lesson 4 - Find all the factors pairs of a number. Lesson 5 - Choose the given multiples of a given number up to 10 Lesson 6 - Choose the multiples of a given number up to 12
● Determine if a number (1-100) is prime or composite (DOK 1)	**Go Math** Chapter 8 Lesson 3 - Prime and Composite Numbers **IXL** G. Factors and Multiples Lesson 7 - Prime and composite: up to 20 Lesson 8 - Prime and composite: up to 100

● Generate a number pattern following a rule (DOK 1) ● Identify the rule in a given number pattern (DOK 1)	**Go Math** Chapter 8 Lesson 4 - Number Patterns **IXL** O. Patterns and Sequences Lesson 1 - Use a rule to complete a number pattern Lesson 2 - What is true about the given pattern? Lesson 3 - What is true about the pattern made by the rule? Lesson 4 - Identify mistakes in a number pattern Lesson 5 - Complete an increasing number pattern Lesson 6 - Complete a multiplication number pattern Lesson 7- Number patterns: word problems Lesson 8 - Number patterns: mixed review
● Determine the missing elements in a function table (limit to =,-, or x and to whole numbers or money). ● Determine the rule for a function given a table (limit to =, -, or x and to whole numbers)	**IXL** O. Patterns and Sequences Lesson 10 - Multiplication input/output tables Lesson 11- Multiplication input/output tables: find the rule Lesson 12- Use a rule to complete an input/output table Lesson 13- Input/output tables with addition, subtraction, multiplication, and division

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter 8 Common Assessment; Performance Task #8

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math

- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #3: To use operations to solve problems – Division **Time Range in Days:** 16 Days

Eligible Content:

- M04.A-T.2.1.3 Divide up to four-digit dividends by one-digit divisors with answers written as whole-number quotients and remainders
- M04.B-O.1.1.2 Divide to solve word problems involving multiplicative comparison
- M04.B-O.1.1.3 Solve multi-step word problems posed with whole numbers using the four operations. Answers will be either whole numbers or have remainders that must be interpreted yielding a final answer that is a whole number. Represent these problems using equations with a symbol or letter standing for the unknown quantity.
- M04.B-O.1.1.4 Identify the missing symbol (+, -, x, ÷, =, <, and >) that makes a number sentence true (single-digit divisor only)

Objectives: (Students will be able to)	**Core Activities Corresponding Instructional Methods:**
• Divide up to four-digit dividends by one-digit divisors (DOK 1)	**Go Math** Chapter 5 - Lesson 1 - Investigate Remainders Chapter 5 - Lesson 2 - Interpret Remainders Chapter 5 Lesson 3 - Divide Tens, Hundreds, and Thousands Chapter 6 - Lesson 3 Model Division with Regrouping Chapter 6 - Lesson 4 - Place the First Digit Chapter 6 - Lesson 5 - Divide by 1-Digit Numbers **IXL -** K. Divide by One-Digit Numbers Lesson 1 - Division patterns over increasing place values Lesson 2 - Divide numbers ending in zeros by 1-digit numbers Lesson 8 - Divide 2- digit numbers by 1-digit numbers, quotients up to 10 Lesson 9 - Divide 2- digit numbers by 1-digit numbers Lesson 14 - Divide larger numbers by 1-digit numbers
• Divide to solve multiplicative comparisons (DOK 3) • Solve multi-step word problems, including problems where the	**Go Math** Chapter 6 Lesson 6 - Multi-Step Word Problems (Also covered in Lesson 5.2) **IXL -** N. Multi-Step Word Problems

remainder must be interpreted (DOK 3)	Lesson 5 - Multi-step word problems involving remainders

Diagnostic Assessments:

- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:

- Lesson Level Quizzes

Summative Assessments:

- Chapter 5/6 Common Assessment; Performance Task #5

Extensions:

- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #4: Apply the area and perimeter formulas **Time Range in Days: 7 days**

Eligible Content:

- Apply the area and perimeter formulas for rectangles in real-world and mathematical problems (may include finding a missing side length) Whole numbers only. **The formulas will be provided.**

Core Activities:	**Corresponding Instructional Methods:**
• Apply the area and perimeter formulas for to rectangles, given the side measures • Find the measure of a missing side length	**Go Math** Chapter 7 Lesson 1 - Apply the perimeter formula Chapter 7 Lesson 2 - Apply the Area Formula Chapter 7 Lesson 3 - Find unknown measures *Introduce PSSA formula sheet **IXL -** GG. Perimeter Lesson 3 - Find the perimeter of rectangles using formulas Lesson 4 - Perimeter: word problems

	HH. Area Lesson 1 - Create rectangles with a given area Lesson 2- Find the area of rectangles using formulas Lesson 3 - find the area of missing side length of a rectangle Lesson 4 - Area: word problems Lesson 7 - Compare area and perimeter of rectangles and squares Lesson 9 - Area and perimeter: word problems

Diagnostic Assessments:

- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:

- Lesson Level Quizzes

Summative Assessments:

- Chapter 7 Assessment, Performance Task 7

Extensions:

- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Unit 3 : Numbers and Operations - Fractions **Time Range in Days:** 40 days

Overview: To extend understanding of fraction equivalence and ordering.To build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. To understand decimal notation for fractions and compare decimal fractions.

Standards Addressed:
CC.2.1.4.C.1, CC.2.1.4.C.2, CC.2.1.4.C.3

Goal #1: Find equivalencies and compare fractions
Time Range in Days: 14 Days

Eligible Content: Students will be able to:

- M04.A-F.1.1.1 Recognize and generate equivalent fractions
- M04.A-F.1.1.2 Compare two fractions with different numerators and different denominators (denominators limited to 2,3,4,5,6,8,10,12, and 100) using the symbols >, =, or < and justify the conclusions
- M04.A-F.2.1.2 Decompose a fraction or mixed number into a sum of fractions with the same denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100), recording the decomposition by an equation. Justify decompositions (e.g., by using a visual fraction model

Objectives: (Students will be able to)	**Corresponding Instructional Methods:**
● Recognize and generate equivalent fractions (DOK 2)	**Go Math** Chapter 9 Lesson 1- Equivalent Fractions Lesson 2- Generate Equivalent Fractions Lesson 3 - Use Division to Generate Equivalent Fractions Lesson 4 - Find Equivalent Fractions Lesson 5 - Write Fractions as Sums Lesson 6 - Rename fraction and mixed numbers **IXL -** P. Equivalent Fractions Lesson: 3 - Find equivalent fractions using area models Lesson: 6 - Identify equivalent fractions Lesson: 7 - Equivalent fractions: Find the missing numerator or denominator Lesson: 8 - Patterns of equivalent fractions Lesson: 10 - Write fractions in lowest terms Module 5ZG- Equivalent fractions: Word problems Module 5WM- Write a fraction as a sum of

	unit fractions Module 7KM- Write a fraction as a sum of unit fraction in multiple ways Q. Mixed Numbers Lesson 3: Convert mixed numbers to improper fractions Lesson 4: Convert improper fractions to mixed numbers Lesson 5: Convert between improper fractions and mixed numbers S. Understand fraction addition and subtraction Lesson 1- Decompose fractions into unit fractions using models Lesson 2- Decompose fractions into unit fractions Lesson 3- Decompose fractions Lesson 4- Decompose fractions multiple ways.
● Compare two fractions with different numerators and different denominators (denominators limited to 2,3,4,5,6,8,10,12, and 100) using the symbols >, =, or < and justify the conclusions (DOK 2)	**Go Math** Chapter 10 Lesson 1 - Compare fractions using benchmarks Lesson 2 - Compare fractions Lesson 3 - Compare and order fractions **IXL** - R. Compare and order fractions Lesson 2 - Graph and compare fractions with like numerators or denominators on number lines Lesson 6 - Compare fractions using benchmarks Lesson 8 - Compare Fractions Lesson 10 - Compare fractions in recipes Lesson 12 - Graph and order fractions on number lines Lesson 14 - Order Fractions Module 5TV - Compare Mixed Numbers

Diagnostic Assessments:

- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:

- Lesson Level Quizzes

Summative Assessments:

- Chapter 9 Assessment, Performance Tasks

Extensions:

- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #2: Solve problems involving fractions and whole numbers (straight computation or word problems).

Time Range in Days: 14 days

Eligible Content: Students will be able to:

- M04.A-F.2.1.1 Add and subtract fractions with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; answers do not need to be simplified; and no improper fractions as the final answer)
- M04.A-F.2.1.3 Add and subtract mixed numbers with a common denominator (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100; no regrouping with subtraction; fractions do not need to be simplified; and no improper fractions as the final answers)
- M04.A-F.2.1.4 Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).
- M04.A-F.2.1.5 Multiply a whole number by a unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number).
- M04.A-F.2.1.6 Multiply a whole number by a non-unit fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100 and final answers do not need to be simplified or written as a mixed number.
- M04.A-f.2.1.7 Solve word problems involving multiplication of a whole number by a fraction (denominators limited to 2, 3, 4, 5, 6, 8, 10, 12, and 100).

Core Activities:	**Corresponding Instructional Methods:**
• Add and subtract fractions with common denominators (denominators limited to 2,3,4,5,6,8,10,12, and 100; answers do not need to be simplified;	**Go Math** Chapter 11 Lesson 1 - Add and subtract parts of a whole Lesson 2 - Add fractions using models Lesson 3 - Subtract fractions using models

and no improper fractions as the final answer) (DOK 1) ● Solve word problems involving addition and subtraction of fractions referring to the same whole or set and having like denominators (denominators limited to 2,3,4,5,6,8,10,12, and 100) (DOK 2)	Lesson 4 - Use benchmarks to determine reasonableness Lesson 5 - Add and subtract fractions Lesson 6 - Add and subtract mixed numbers **IXL** - S. Understand fraction addition and subtraction Lesson 5- Add fractions with like denominators using area models Lesson 6- Add fractions with like denominators using strip models Lesson 8- Subtract fractions with like denominators using area models Lesson 9- Subtract fractions with like denominators using strip models T. Add and subtract fractions with like denominators Lesson 1-Add fractions with like denominators Lesson 2- Subtract fractions with like denominators Lesson 3: Add and subtract fractions with like denominators Lesson 4: Add and subtract fractions with like denominators: word problems
● Add and subtract mixed numbers with a common denominator (denominators limited to 2,3,4,5,6,8,10,12, and 100; no regrouping with subtraction; fractions do not need to be simplified; and no improper fractions as the final answers) (DOK 1)	**Go Math** Chapter 11 Lesson 6 - Add and subtract mixed numbers **IXL** - T. Add and subtract fractions with like denominators Lesson 10: Add and subtract fractions with like denominators Lesson 11: Add and subtract fractions with like denominators: word problems
● Multiply a whole number by a unit fraction (denominators limited to 2,3,4,5,6,8,10,12, and 100 and final answers do not need to be simplified or written as a mixed number) (DOK 2) ● Multiply a whole number by a non-unit fraction (denominators limited to 2,3,4,5,6,8,10,12, and 100 and final	**Go Math** Chapter 12 Lesson 1 - Multiples of unit fractions Lesson 2 - Multiples of fractions Lesson 3 - Multiply a fraction by a whole number using models **IXL** V. Multiply unit fractions and whole numbers Lesson 3: Multiply unit fractions: find the

answers do not need to be simplified or written as a mixed number) (DOK 2) ● Solve word problems involving multiplication of a whole number by a fraction (denominators limited to 2,3,4,5,6,8,10,12, and 100) (DOK 2)	missing numbers Lesson 5: Multiply unit fractions by whole numbers Lesson 6: Multiply unit fractions by whole numbers: word problems W. Multiply fractions and whole numbers Lesson 1: Multiply fractions by whole numbers using models Lesson 2: Multiply fractions by whole numbers using models: complete the equation Lesson 3: Multiply fractions and whole numbers using number lines Lesson 6: Multiply fractions by whole numbers Lesson 7: Multiply fractions by whole numbers: word problems

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapters 11 and 12 Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #3: Use operations to solve problems involving decimals, including converting between fractions; and compare decimal fractions.
Time Range in Days: 12 days
Eligible Content: Students will be able to:
- M04.A-F.3.1.1 Add two fractions with respective denominators 10 and 100.
- M04.A-F.3.1.2 Use decimal notation for fractions with denominators 10 or 100.

- M04.A-F.3.1.3 Compare two decimals to hundredths using the symbols >, =, or <, and justify the conclusions.

Core Activities:	**Corresponding Instructional Methods:**
● Use decimal notation for fractions with denominators 10 and 100 (DOK 2)	**Go Math** Chapter 13 Lesson 1 - Model tenths and hundredths Lesson 2 - Relate tenths and decimals Lesson 3: Relate hundredths and decimals Lesson 4: Equivalent fractions and decimals Lesson 5: Relate fractions, decimals, and money Lesson 6: Money **IXL** - Y. Decimals Lesson 1: Place value models for decimal numbers Lesson 2: Place values in decimal numbers Lesson 3: Relate decimals and money X. Relate fractions and decimals Lesson 1: Model decimals and fractions Lesson 2: What decimal number is illustrated? Lesson 3: Graph fractions as decimals on number lines Lesson 6: Convert fractions and mixed numbers to decimals - denominators of 10 and 100 Lesson 7: Convert decimals to fractions and mixed numbers Lesson 8: Convert fractions and mixed numbers to decimals P. Equivalent Fractions Lesson 9: Fractions with denominators of 10 and 100 Q. Mixed numbers Lesson 2: Fractions and mixed numbers with denominators of 10 and 100 AA. Money Lesson 5: Find the change, price, or amount paid Lesson 1: Count coins and bills - up to $20 bill Lesson 2: Count coins and bills word problems - up to $20 bill

● Add two fractions with respective denominators 10 and 100. (DOK 2)	**Go Math** Chapter 13 Lesson 7: Add fractional parts of 10 and 100 **IXL** - U. Add and subtract fractions with unlike denominators Lesson 1: Add fractions: denominators 10 and 100
● Compare two decimals to hundredths using the symbols >, =, or <, and justify the conclusions. (DOK 1)	**Go Math** Chapter 13 Lesson 8: Compare decimals Lesson 9: Order decimals **IXL** - Y. Decimals Lesson 6: Compare decimals using models Lesson 8: Compare decimal numbers Lesson 10: Put decimals in order I Lesson 11: Put decimals in order II

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter 13 Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Unit 4 : Geometry **Time Range in Days:** 16 days

Overview: To draw and identify lines and angles, and classify shapes by properties of their lines and angles.

Standards Addressed:
CC.2.3.4.A.1, CC.2.3.A.2, CC.2.3.4.A.3
Goal #1: List properties, classify, draw, and identify geometric figures in two dimensions.

Time Range in Days: 16

Eligible Content: Students will be able to:

- M04.C-G.1.1.1 Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.
- M04.C-G.1.1.2 Classify two-dimensional figures based on the presence or absence of angles of a specified size. Recognize right triangles as a category and identify right triangles.
- M04.C-G.1.1.3 Recognize a line of symmetry for a two-dimensional figure as a line across a figure such that a figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry) up to two lines of symmetry).
- Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself.

Core Activities:	**Corresponding Instructional Methods:**
● Draw points, lines, line segments, rays, angles (right, acute, and obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures. (DOK 1) ● Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. (DOK 1)	**Go Math** Chapter 14 Lesson 1: Lines, rays, and angles Lesson 2: Classify triangles by angles Lesson 3: Parallel lines and perpendicular lines Lesson 4: Classify quadrilaterals **IXL** - II. Lines and angles Lesson 1: Points, lines, line segments, rays, and angles Lesson 2: Parallel, perpendicular, and intersecting lines Lesson 3: Identify parallel, perpendicular, and intersecting lines JJ, Angle Measurement Lesson 2: Acute, right, obtuse, and straight angles KK. Triangles

	Lesson 1: Acute, obtuse, and right triangles LL. Quadrilaterals Lesson 7: Classify quadrilaterals
• Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into mirroring parts. Identify line-symmetric figures and draw lines of symmetry (up to two lines of symmetry) (DOK 1)	**Go Math** Lesson 5: Line symmetry Lesson 6: Find and draw lines of symmetry **IXL** - MM. Symmetry Lesson 1: Identify lines of symmetry Lesson 2: Draw lines of symmetry Lesson 3: Count lines of symmetry
• Generate a shape pattern that follows a rule. (DOK 1) • Identify features of a pattern that are not explicitly stated (DOK 2)	**Go Math** Lesson 7: Shape Patterns **IXL** - O. Patterns and sequences Lesson 9: Extend growing shape patterns

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter 14 Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Unit 5 : Measurement and Data **Time Range in Days:** 26 days

Overview: To solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. To represent and interpret data and use geometric measurement to understand concepts of angles; measure and create angles.

Standards Addressed:
CC.2.4.4.A.1, CC.2.4.4.A.2, CC2.4.4.A.4, CC.2.4.4.A.6

Goal #1: Solve problems involving length, weight (mass), liquid volume, time, area, and perimeter.

Time Range in Days: 11 days

Eligible Content: Students will be able to:

- M04.D-M.1.1.1 Know relative sizes of measurement units within one system of units including standard units (in., ft,yd , mi; oz., lb; and c, pt, qt, gal), metric units (cm, m, km; g, kg; and mL, L), and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. **A table of equivalents will be provided.**
- M04.D-M.1.1.2 Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit.
- M04.D-M.1.1.4 Identify time (analog or digital) as the amount of minutes before or after the hour.

Core Activities:	**Corresponding Instructional Methods:**
● Know relative sizes of measurement units within one system of units including standard units (in, ft, yd, mi, oz., lb, c, pt, qt, gal), metric units (cm, m, km, g, kg, and mL, L), and time (sec, min, hr, day, wk, mo, and yr). Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. **A table of equivalents will be provided.** ● Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money,	**Go Math** Chapter 16 Lesson 1: Measurement benchmarks Lesson 2: Customary Units of Length Lesson 3: Customary Units of Weight Lesson 4: Customary Units of Liquid Volume Lesson 5: Mixed Measures Lesson 6: Metric Units of Length Lesson 7: Metric Units of Mass and Liquid Volume **IXL** - DD. Customary units of measurement Lesson 2: Which customary unit is appropriate? Lesson 3: Compare and convert customary

including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit. (DOK 2)	units of length Lesson 4: Compare and convert customary units of weight Lesson 5: Compare and convert customary units of volume Lesson 7: Conversion tables: customary units Lesson 9: Convert mixed customary units Lesson 10: Add and subtract mixed customary units EE. Metric units of measurement Lesson 1: Which metric unit is appropriate? Lesson 2: Compare and convert metric units of length Lesson 3: Compare and convert metric units of weight Lesson 4: Compare and convert metric units of volume
● Identify time (analog or digital) as the amount of minutes before or after the hour. (DOK 1) ● Use the four operations to solve word problems involving distances, intervals of time (such as elapsed time), liquid volumes, masses of objects; money, including problems involving simple fractions or decimals; and problems that require expressing measurements given in a larger unit in terms of a smaller unit. (DOK 2)	**GoMath** Chapter 17 Lesson 2: Units of time Lesson 3: Elapsed Time **IXL** - CC. Time Lesson 1: Convert time units Lesson 4: Elapsed time Lesson 5: Elapsed time: word problems Lesson 6: Find start and end times: multi-step word problems

Diagnostic Assessments:

- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:

- Lesson Level Quizzes

Summative Assessments:

- Chapters 16 and 17 Assessment, Performance Task

Extensions:

- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure

- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #2: Represent and interpret data. **Time Range in Days:** 7 days

Eligible Content: Students will be able to:

- M04. D-M.2.1.1 Make a line plot to display a data set of measurements in fractions of a unit (e.g., intervals of 1/2., ¼, or ⅛)
- M04.D-M.2.1.2 Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominations, such as ¼, 2/4, ¾)
- M04.D-M.2.1.3 Translate information from one type of display to another (table, chart, bar graph, or pictograph)

Core Activities:	**Corresponding Instructional Methods:**
• Make a line plot to display a data set of measurements in fractions of a unit (e.g., intervals of 1/2., ¼, or ⅛) (DOK 1) • Solve problems involving addition and subtraction of fractions by using information presented in line plots (line plots must be labeled with common denominations, such as ¼, 2/4, ¾) (DOK 2)	**GoMath** Chapter 18 Lesson 1: Frequency Tables Lesson 2: Use frequency tables Lesson 4: Line Plots Lesson 5: Use line plots **IXL** - BB. Data and graphs Lesson 2: Interpret line plots Lesson 3: Create line plots Lesson 4: Create and interpret line plots with fractions Lesson 9: Interpret frequency charts Lesson 10: Create frequency charts
• Translate information from one type of display to another (table, chart, bar graph, or pictograph)	**IXL** - BB. Data and graphs Lesson 1: Read a table Lesson 5: Create and interpret line graphs Lesson 6: Create line graphs Lesson 7: Interpret bar graphs Lesson 8: Create bar graphs Lesson 9: Interpret frequency charts Lesson 10: Create frequency charts

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter 18 Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #3: Use appropriate tools and units to sketch an angle and determine angle measurements.
Time Range in Days: 8 days

Eligible Content: Students will be able to:
- M04.D-M.3.1.1 Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of specified measure.
- M04.D-M.3.1.2 Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems. (Angles must be adjacent
- and non-overlapping)

Core Activities:	**Corresponding Instructional Methods:**
● Measure angles in whole-number degrees using a protractor. With the aid of a protractor, sketch angles of specified measure. (DOK 2)	**Go Math** Chapter 15 Lesson 1: Explore angles Lesson 2: Degrees Lesson 3: Measure and draw angles **IXL** - JJ. Angle measurement Lesson 2: Angles as fractions of a circle Lesson 3: Use fractions to find the measure of an angle Lesson 6: Measure angles with a protractor Lesson 7: Draw angles with a protractor Lesson 8: Estimate angle measurements
● Solve addition and subtraction problems to find unknown angles on a	**Go Math** Chapter 15 Lesson 4: Join and separate angles

diagram in real-world and mathematical problems. (Angles must be adjacent and non-overlapping)	Lesson 5: Unknown angle measures **IXL -** JJ. Angle measurement Lesson 9: Adjacent angles Lesson 10: Angle measures: word problems

Diagnostic Assessments:

- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:

- Lesson Level Quizzes

Summative Assessments:

- Chapter 15 Assessment, Performance Task

Extensions:

- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Unit 6 : Getting Ready for 5th Grade **Time Range in Days:** 27 days

Overview: To prepare students for fifth grade by reviewing fourth grade skills and tying them to fifth grade readiness skills.

Goal #1: Describe a set of data using mean, median, mode, and range.
Time range in days: 5 days

● Determine mode, median, mean, and range	**Go Math** Chapter 18 Lesson 3 Determine mode, median, and range **IXL -** Module 7Y3 Interpret tables and bar graphs to find median, mode, and range

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Common Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #2: Make and interpret stem and leaf plots with whole numbers
Time range in days: 5 days

● Make and interpret stem and leaf plots with whole numbers	**Go Math** Chapter 18 Lesson 6 Stem and leaf plots Lesson 7 Use stem and leaf plots **IXL.** BB. Data and graphs Lesson 11: Interpret stem and leaf plots Lesson 12: Create stem and leaf plots

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #3: Use order of operations to find the value of expressions

Time range in days: 5 days

● Use order of operations to find the value of expressions	**Go Math** Getting Ready For 5th Grade Lesson 1 Order of operations **IXL**. Module XAG Understand parentheses in equations

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math

- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #4: Locate points on a grid **Time range in days:** 5 days

● Use order of operations to find the value of expressions	**Go Math** Getting Ready For 5th Grade Lesson 1 Order of operations

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math
- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:
- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Goal #5: Round decimals amounts, including money amounts, to the nearest whole number or dollar.

Time range in days: 7 days

● Round decimals amounts, including money amounts, to the nearest whole number or dollar.	**Go Math** Getting Ready For 5th Grade Lesson 5 - Round decimals

Diagnostic Assessments:
- IXL Screener
- STAR Math
- Teacher questioning and observation

Formative Assessments:
- Lesson Level Quizzes

Summative Assessments:
- Chapter Assessment, Performance Task

Extensions:
- Core Program Enrichment Resources
- Xtra Math
- Rocket Math

- Waggle based on growth measure
- IXL Diagnostic Strand Analysis Skill Recommendations

Correctives:

- Core Program Reteach Resources
- Xtra Math
- Rocket Math
- Waggle based on Growth Measure
- IXL Diagnostic Strand Analysis Skill Recommendations