4th Grade Math
Curriculum Map
Sheryl Muckey

<table>
<tr><td colspan="2">Unit: Number Concepts</td><td>Time: August-September</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">4. N.1 Recognize that a digit in a given place represents ten times what it represents in the place to its right.
4.N.3 Compose and decompose five-digit numbers into ten thousands, thousands, hundreds, tens, and ones.
4. N.4 Read and write whole numbers up to 1,000,000 using standard form, word form, and expanded form.
4. N. 5 Compare two multi-digit numbers based on values of the digits in each place value using symbols <, >, =.
4. N.2 Use place value understanding to round multi-digit whole numbers to any place.
4.MF.3 Fluently add and subtract multi-digit whole numbers using an algorithm including, but not limited to, the standard algorithm.</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who need the extra help receive guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting. Appropriate modifications will be made in each assignment.</td><td>Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures are in place.</td><td>To practice the various skills students will complete:
Problem of the day
Assignments which correspond with the lesson
Assessments
Use of place value cubes, models, and number lines
Discussions and sharing strategies
Number riddles
Building numbers with number cards
White board practice problems</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Students need these skills for a strong foundation in understanding multi-digit numbers. It will help them</td><td>Digit
Value
Place value
Greater than</td><td>Daily lesson sheets
Teacher observation
Chapter Tests
Class Discussion</td></tr>
</table>

look for patterns and understand how place value is used in addition and subtraction. Rounding numbers allows them to determine reasonableness of work.	*Less than* *Equal to* *Estimate* *Round* *Standard form* *Word form* *Compare* *Order* *Expanded form* *Periods*	• *Written explanations and student created problems.*

Essential Questions:

- *How do you describe the value of a digit?*
- *How can you read and write numbers through hundred thousand?*
- *How can you compare and order numbers?*
- *How can you round numbers?*
- *How can you rename a whole number as a ten, hundred, or thousand?*
- *How can you add whole numbers?*
- *How can you subtract whole numbers?*
- *How can you use different strategies to compare problems with addition and subtraction?*
- *How can looking for patterns help understanding of place value?*
- *What are some strategies you can use to round whole numbers?*

Unit: Multiply by 1-Digit Numbers	**Time:** *September-October*

Standards Taught

- *4.N.2 Use place value understanding to round multi-digit whole numbers to any place.*
- *4.OA.1 Represent and explain multiplication comparison, using equations, drawings, and verbal reasoning.*
- *4. OA.2 Solve real-world problems involving multiplicative comparisons, using drawings and or equations with a symbol for the unknown number, and distinguish between multiplicative comparison and additive comparison.*
- *4. MF. 1 Recall from memory multiplication facts (0-12).*
- *4. OA.3 Multiply four-digit whole numbers by one-digit whole numbers, and multiply two two-digit whole numbers.*

- *4. OA.6 Solve multistep word problems using addition, subtraction, multiplication, and division, with whole numbers and having whole number answers, including problems in which remainders must be interpreted: assess the reasonableness of answers using mental computation and estimation strategies including rounding.*
- *4.OA.12 Demonstrate understanding of addition and multiplication problems using properties (commutative, associative, distributive, and identity.*

Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who need the extra help receive guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting. Appropriate modifications will be made in each assignment. Students will work at appropriate levels to review multiplication facts.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Math facts review with online practice drills and partner games* • *Problem of the day* • *Work with models and diagrams to solve problems*
Relevance	**Vocabulary**	**Assessments**
Students need to explore different strategies for multiplication to understand the operation and become more fluent. They need to understand multiplication and multiplication comparisons in order to develop their problem solving skills.	*Comparisons* *Place Value* *Expanded Form* *Estimate* *Round* *Distributive Property* *Partial Product* *Factor* *Regrouping* *Equation*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

Essential Questions:

- *How do you model and solve multiplication comparisons?*
- *How does understanding place value help you multiply tens, hundreds, and thousands?*
- *How can you estimate products by rounding and determine if exact answers are reasonable?*
- *How can you use the Distributive Property to multiply a 2-digit number by a 1-digit number?*
- *How can you use expanded form to multiply a multi-digit number by a 1-digit number?*

- *How can you use place value and partial products to multiply by a 1-digit number?*
- *How can you use mental math and properties to help multiply numbers?*
- *When can you use diagrams to solve a multistep multiplication problem?*
- *How can you use regrouping to multiply a 2-digit number by a 1-digit number?*
- *How can you represent and solve multistep problems using equations?*

Unit: Multiply 2-Digit Numbers	**Time:** *October*	
Standards Taught		
• *4.OA. 3 Multiply four-digit whole numbers by one-digit whole numbers, and multiply two two-digit whole numbers.* • *4. OA.6 Solve multistep word problems using addition, subtraction, multiplication, and division, with whole numbers and having whole number answers, including problems in which remainders must be interpreted: assess the reasonableness of answers using mental computation and estimation strategies including rounding.*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting. Instruction may need to be slowed down until an understanding of the process occurs.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Problem of the day* • *Work with models and diagrams to solve problems* • *Work with number lines*
Relevance	**Vocabulary**	**Assessments**
Students need to see how and why we multiply each place in one number by each place in another so they will learn to think more abstractly as they move to the standard algorithm. They will learn to	• *Compatible numbers* • *Associative Property of Multiplication* • *Commutative Property of Multiplication* • *Estimate*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and*

evaluate the reasonableness of their work. They need to multiply by 10s and estimate products. These skills prepare the students for division, factors, multiples, and patterns in future work.	• *Partial Product* • *Product* • *Factor* • *Regroup* • *Area model*	*student created problems.* • *White board problems*
Essential Questions: • *What strategies can you use to multiply by tens?* • *What strategies can you use to estimate products?* • *How can you use area models and partial products to multiply 2-digit numbers?* • *How can you use place value and partial products to multiply 2-digit numbers?* • *How can you use regrouping to multiply 2-digit numbers?* • *How can you find and record products of two 2-digit numbers?* • *How is multiplication using partial products different from multiplication using regrouping? How are they similar?* • *How can you use a diagram to solve a multi-step multiplication problem?*		

Unit: Divide by 1-Digit Numbers	**Time***: October/ November*	
Standards Taught		
• *4.N.1 Recognize that a digit in a given place represents ten times what it represents in the place to its right.* • *4. OA. 4 Divide four-digit whole numbers by one-digit divisors; quotients should be with and without whole number remainders.* • *4. OA.6 Solve multistep word problems using addition, subtraction, multiplication, and division, with whole numbers and having whole number answers, including problems in which remainders must be interpreted: assess the reasonableness of answers using mental computation and estimation strategies including rounding.* • *4.OA.5 Interpret a remainder of a one-step division problem.* • *4.MF.2 Recall from memory division facts (0-12).*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they	*Each student has their own individual desk but tables are available for group work. The environment is structured*	*To practice the various math skills students will complete:*

will complete worksheets and test in an alternate setting.	*with rules and procedures in place.*	• *Assignments which correspond with the lesson* • *Assessments* • *White board problems* • *Problem of the Day* • *Work with area models/ drawings* • *Division fact review with games and partner activities* • *Work with base ten blocks to model division*
Relevance	**Vocabulary**	**Assessments**
Students will learn how to work with place value in division problems. They will learn that division is sharing or partitioning. They will be able to interpret remainders and solve real life problems. Learning division with remainders will aid them with multiplies, fractions, and decimals.	• *Compatible Numbers* • *Multiple* • *Quotient* • *Partial Quotient* • *Remainder* • *Dividend* • *Divisor* • *Distributive Property* • *Place value*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

Essential Questions:

- *How can you use multiple to estimate quotients?*
- *How can you use models to divide whole numbers that do not divide evenly?*
- *How can you use remainders in division problems?*
- *How can you divide numbers through thousands by whole numbers to 10?*
- *How can you use compatible numbers to estimate quotients?*
- *How can you use the Distributive Property to find quotients?*
- *How can you use repeated subtraction and multiples to find quotients?*
- *How can you use partial quotients to divide by 1-digit divisors?*
- *How can you use place value to know where to place the first digit in the quotient?*
- *How can you divide multi-digit numbers and check your answers?*
- *How can you draw a diagram to solve multistep division problems?*

<table>
<tr><td colspan="2">Unit: Algebra: Perimeter and Area</td><td>Time: November</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">4.M.4 Use visual models and reasoning to explain how area and perimeter formulas for rectangles relate to their side lengths and solve real-world problems.</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.</td><td>Each student has their own individual desk but table are available for group work.</td><td>To practice the various math skills students completed:
Assignments which correspond with the lesson
Assessments
Work with decimal squares and number lines
White board problems
Problem of the Day</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Students will begin with area models to determine area and perimeter. They will then develop formulas to calculate area and perimeter and use the formulas to solve story problems using one or more rectangles. They will also use formulas to determine the unknown side measure in story problems. They will use plane figure attributes to build their understanding of area and perimeter.</td><td>Formula
Perimeter
Area
Base
Height
Square unit</td><td>Daily lesson sheets
Teacher observation
Chapter Tests
Class Discussion
Written and oral explanations and student created problems.
White board problems</td></tr>
<tr><td colspan="3">Essential Questions:
How can you use a formula to find the perimeter of a rectangle?
How can you use a formula to find the area of a rectangle?
How can you find the area of combined rectangles?
How can you find an unknown measure of a rectangle given its area or perimeter?
How can you use the strategy “solve a simpler problem” to solve area problems?</td></tr>
</table>

Unit: Factors, Multiples, and Patterns	**Time:** *November/December*

Standards Taught

- *4.OA.7 Find factor pairs for whole numbers up to 100.*
- *4.OA.8 Recognize that a whole number (within 100) is a multiple of each of its factors.*
- *4.OA.9 Find multiples of single-digit whole numbers.*
- *4. OA.10 Determine whether a whole number from 1 to 100 is prime or composite.*
- *4. OA.11 Generate a number or shape pattern that follows a given rule, identifying apparent features of the pattern that are not explicit in the rule itself.*
- *4.OA.13 Evaluate a numerical expression including addition, subtraction, multiplication, and division using the order of operations of whole numbers without parenthesis and exponents.*

Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Work with tiles to make arrays* • *Drawings to model factors* • *Use of divisibility rules* • *Patterns following number rules* • *White board problems* • *Problem of the day* • *Number line factoring*
Relevance	**Vocabulary**	**Assessments**
When students learn to find factors and multiples it aids	*Array,* *Product*	• *Daily lesson sheets* • *Teacher observation*

in the future work with fractions. To write a fraction in simplest form they need to know common factors of the numerator and the denominator. Multiples will allow them to find common numerators and denominators in fraction comparisons.	*Factor* *Common Factor* *Multiple* *Common Multiple* *Divisible* *Composite Number* *Prime Number* *Pattern* *Term* *Rules*	• *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*
Essential Questions: • *How can you use models to find factors?* • *How can you tell whether one number is a factor of another number?* • *How can you use factor lists of common factors to solve story problems?* • *How are factors and multiples related?* • *How can you tell whether a number is prime or composite?* • *How can you make and describe patterns?*		

Unit: Fraction Equivalence and Comparison	**Time:** *December/January*	
Standards Taught		
• *4. F.1 Use visual models and reasoning to explain why a fraction a/b is equivalent to another fraction when both the numerator and denominator are multiplied by the same number.* • *4.F.2 Compare fractions with different numerators and denominators, by creating common denominators or numerators, using the symbols <,>,=.*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting. They may also need to use models and fraction bars to aid in their work.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Models and drawings to demonstrate fractions* • *White board problems* • *Problem of the Day*

		• *Drawings of tables* • *Number lines with fractions* • *Number line factoring*
Relevance	**Vocabulary**	**Assessments**
Students use knowledge of benchmark fractions to compare and order fractions. They will use models and common factors to find equivalent fractions and simplest form of fractions. They will use this to solve word problems involving equivalent fractions and comparisons.	*Fraction* *Denominators* *Numerator* *Equivalent fractions* *Simplest form* *Common factor* *Common denominator* *Common multiple* *Common numerator* *Benchmark*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*
Essential Questions: • *How can you use models to show equivalent fractions?* • *How can you use multiplication to find equivalent fractions?* • *How can you write a fraction as an equivalent fraction in simplest form?* • *How can you write a pair of fractions as fractions with a common denominator?* • *How can you make a table to solve problems using equivalent fractions?* • *How can you use benchmarks to compare fractions?* • *How can you compare fractions using common denominators and numerators?* • *How can you order fractions?*		

Unit: Add /Subtract Fractions	**Time:** *January*
Standards Taught	
• *4.F.3 Add and subtract fractions with like denominators.* • 4.F.4 Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators. • 4.F.5 Break apart fractions into sums of fractions with the same denominator and smaller numerators. • *4.F.6 Add and subtract mixed numbers with like denominators using various strategies.*	

Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**

Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting. Some students may need to use the models and fraction bars to assist in the addition and subtraction problems.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Area models for addition and subtraction* • *Work with fraction circles, bars, and number lines* • *White board problems* • *Problem of the day* • *Mixed number posters* • *Number line factoring*
Relevance	**Vocabulary**	**Assessments**
Students will start with models to demonstrate the addition and subtraction of fractions. They move to using common denominators to do numerical operations on fractions. They will learn to work with mixed numbers so they can be added and subtracted. All this will be used to solve word problems with fractions.	*Fraction* *Unit fraction* *Mixed number* *Simplest form* *Associative Property of Addition* *Commutative Property of Addition* *Denominator* *Fraction* *Numerator* *Fraction greater than one*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

Essential Questions:

- *When can you add and subtract parts of a whole?*
- *How can you write a fraction as a sum of fractions with the same denominator?*
- *How can you add fractions with like denominators using models?*
- *How can you subtract fractions with like denominators using model?*
- *How can you add and subtract fractions with like denominators?*
- *How can you rename mixed numbers as fractions greater than 1 and rename fractions greater than 1 as mixed number?*
- *How can you add and subtract mixed numbers with like denominators?*
- *How can you rename a mixed number to help you subtract?*
- *How can you add fractions with like denominators using the properties of addition?*
- *How can you use drawings to solve multistep problems with fractions?*

<table>
<tr><td colspan="2">Unit: Multiply Fractions by Whole Numbers</td><td>Time: January</td></tr>
<tr><td colspan="3">Standards Taught</td></tr>
<tr><td colspan="3">4.F.7 Multiply a fraction by a whole number and a whole number by a fraction.
4.F.8 Understand a fraction a/b is a multiple of 1/b
4.F.9 Understand a multiple of a/b is also a multiple of 1/b.
4.F.10 Solve word problems involving multiplication of fractions by whole numbers.</td></tr>
<tr><td>Differentiation/Assessment:</td><td>Classroom Management and Environment:</td><td>What will the students be doing?</td></tr>
<tr><td>Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.</td><td>Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.</td><td>To practice the various math skills students will complete:
Assignments which correspond with the lesson
Assessments
Number lines with multiples of fractions
Work with fraction models
Problem of the day
White board problems
Number line factoring</td></tr>
<tr><td>Relevance</td><td>Vocabulary</td><td>Assessments</td></tr>
<tr><td>Students will need a good understanding of multiplication of whole numbers to work with fractions. They will use models and real life problems to aid in understanding how fractions work. They will start with multiplying fractions and finish with multiplying mixed numbers. These lessons will prepare</td><td>Factor
Fraction
Multiple
Product
Unit fraction
Identity Property of Multiplication</td><td>Daily lesson sheets
Teacher observation
Chapter Tests
Class Discussion
Written and oral explanations and student created problems.
White board problems</td></tr>
</table>

them to multiply two fractions in the future.		

Essential Questions:

- *How can you write a fraction as a product of a whole number and a unit fraction?*
- *How can you use a number line to write multiples of fractions?*
- *How can you write a product of a whole number and a fraction as a product of a whole number and a unit fraction?*
- *How can you use a model to multiply a fraction by a whole number?*
- *How can you multiply a fraction by a whole number to solve a problem?*
- *How can you use a diagram to solve comparison problems with fractions?*

Unit: Relate Fractions and Decimals	**Time:** *February*	
Standards Taught		
• *4.F.11 Add two fractions with denominator or 10 and 100 by expressing the denominator of 10 as and equivalent fraction with a denominator of 100.* • *4.F.12 Understand a decimal number to be a number with a whole part and a fractional part separated by a decimal point.* • *4.F.13 Apply decimal notation for fractions with denominators 10 or 10: locate these decimals on a number line.* • *4.F.14 Read, write, and describe the value of decimal numbers to the hundredths place.* • *4.F.15 Compare decimals to the hundredths place on a number line and by using the symbols <,>,=.*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but tables are available for group work. The environment is structured with rules and procedures in place.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Work with decimal squares and number lines* • *White board problems* • *Problem of the Day*

		• *Work with coins and bills* • *Number line factoring*
Relevance	**Vocabulary**	**Assessments**
Students will learn to equate fractions to denominators of 10 and 100. They will extend their place value knowledge to tenths and hundredths. This is related to money and the solving of work problems with money. They will also learn to add, subtract, and compare decimals using the idea of common denominators.	*Fraction* *Decimal* *Decimal point* *Tenth* *Hundredth* *Equivalent decimals* *Equivalent fractions* *Word form* *Expanded form* *Place value* *Compare*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*
Essential Questions: • *How can you record tenths as fraction and decimals?* • *How can you record hundredths as fractions and decimals?* • *How can you record tenths and hundredths as fractions and decimals?* • *How can you relate fractions, decimals, and money?* • *How can you use the strategy "act it out" to solve problems with money?* • *How can you add fractions when the denominators are 10 or 100?* • *How can you compare decimals?*		

Unit: Two-Dimensional Figures	**Time:** *February*
Standards Taught	
• *4.G.1 Recognize angles as geometric shapes that are formed where two rays share a common endpoint.* • *4.G.3 Classify angles as right, acute, obtuse, or straight. Draw right, acute, obtuse, and straight angles.* • *4.G.5 Identify, describe, and draw points, lines, segments, rays, and angles.* • *4.G.6 Identify, describe, and draw intersecting, parallel, and perpendicular lines.*	

- *4.G.7 Understand a trapezoid to be a two-dimensional shape with four sides, where exactly one pair of sides is parallel.*
- *4.G.8 Identify and describe various quadrilaterals by their properties of parallel and perpendicular lines including square, rectangle, trapezoid, and rhombus.*
- *4.G.9 Identify, describe, and draw equilateral, scalene, right, acute, and obtuse angels and triangles.*
- *4.G.10 Identify and draw lines of symmetry for two-dimensional figures.*

Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who need the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but table are available for group work.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *Geometry foldable* • *Problem of the day* • *White board drawings*
Relevance	**Vocabulary**	**Assessments**
Students will learn to draw and identify two-dimensional figures. They will also learn to classify based on mathematical attributes. The vocabulary of the unit is extensive so a foldable is created with terms, drawings, and examples to aid in understanding and remembering the terms.	*Line* *Line segment* *Ray* *Point* *Angle* *Acute angle* *Obtuse angle* *Right Angle* *Straight angle* *Equilateral triangle* *Scalene triangle* *Isosceles triangle* *Acute triangle* *Obtuse triangle* *Right triangle* *Intersecting lines* *Parallel lines* *Perpendicular lines* *Quadrilateral* *Parallelogram* *Rectangle* *Rhombus* *Square* *Trapezoid* *Symmetry* *Diagonal* *Horizontal* *Vertical*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

Essential Questions:

- *How can you identify and draw points, lines, line segments, rays, and angles?*

- *How can you classify triangles by the size of their angles?*
- *How can you identify and draw parallel lines and perpendicular lines?*
- *How can you sort and classify quadrilaterals?*
- *How can you check if a shape has line symmetry?*
- *How do you find lines of symmetry?*
- *How can you use different strategies to solve pattern problems?*

Unit: Angles	**Time:** *March*	
Standards Taught		
• *4.G.1 Recognize angles as geometric shapes that are formed where two rays share a common endpoint.* • *4.G.3 Classify angles as right, acute, obtuse, or straight. Draw right, acute, obtuse, and straight angles.*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but table are available for group work.*	*To practice the various math skills students completed:* • *Assignments which correspond with the lesson* • *Assessments* • *Geometry foldable* • *White board problems and drawings* • *Problem of the day*
Relevance	**Vocabulary**	**Assessments**
Students will begin work with angles on a circle. They will start measuring angles by relating them to fractional parts. There are 360 degrees on a circle. They will learn measurement of right angles, and straight angles to use as benchmark measures. They will then move to using protractors. The final lessons	*Angle* *Circle* *Ray* *Vertex* *Counterclockwise* *Clockwise* *Degrees* *Protractor* *Acute angle* *Right angle* *Obtuse angle*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

will be finding angle measures by finding the sum of measures or subtracting measurements to find unknown angle measures.	*Straight angle*	
Essential Questions: • *How can you relate angles and fractional parts of a circle?* • *How are degrees related to fractional parts of a circle?* • *How can you use a protractor to measure and draw angles?* • *How can you determine the measure of an angle separated into parts?* • *How can you use the strategy draw a diagram to solve angle measurement problems?*		

Unit: Relative Sizes of Measurement Units	**Time:** *March/April*	
Standards Taught		
• *4.M.1 Measure length, weight, mass, and capacity using U.S. Customary and metric systems of measurement (including km, m, cm, kg, g, lb, oz, L, mL, hr, min, sec).* • *4.M.2 Express larger units in terms of smaller units through conversions within a single system of measurement.* • *4.M.3 Solve word problems using addition, subtraction, multiplication, and division involving distance, intervals of time, capacity, masses, and money, using fractional and decimal values.*		
Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but table are available for group work.*	*To practice the various math skills students will complete:* • *Assignments which correspond with the lesson* • *Assessments* • *White board problems* • *Problem of the Day* • *Elapsed Time Line Schedules* • *Conversions Foldable*
Relevance	**Vocabulary**	**Assessments**

Students need to develop personal benchmarks for frequently used units of measure. This will assist them in finding reasonable answers. For both customary and metric measures, the students will make comparisons and conversions of larger units to smaller units. Students will make line plots to represent fractional data. They will also work on conversions of units of time and on elapsed time between two events. Students will also add and subtract mixed measures and learn to trade in the correct unit.	*Benchmark* *Weight* *Liquid Volume* *Mile* *Yard* *Foot* *Inch* *Ounce* *Pound* *Ton* *Cup* *Fluid ounce* *Gallon* *Half gallon* *Pint* *Quart* *Millimeter* *Decimeter* *Kilometer* *Centimeter* *Millimeter* *Gram* *Kilogram* *Liter* *Second* *Hour* *Minute* *Month* *Year* *Week* *Elapsed time*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*

Essential Questions:

- *How can you use benchmarks to understand the relative sizes of measurement units?*
- *How can you use models to compare customary units of length?*
- *How can you use models to compare customary units of weight?*
- *How can you use models to compare customary units of liquid volume?*
- *How can you make and interpret line plots with fractional data?*
- *How can you use models to compare metric units of length?*
- *How can you compare metric units of mass and liquid volume?*
- *How can you use models to compare units of time?*
- *How can you use the diagrams to solve elapsed time problems?*
- *How can you solve problems involving mixed measures?*
- *How can you use patterns to write number pairs for measurement units?*

Unit: Data: Line Plots/Stem and Leaf Plots	**Time:** *April/May*

Standards Taught

- *4.M.5 Make a line plot to display a data set of measurements in fractions of a unit (1/2, ¼, 1/8) and solve problems using the line plot.*

Differentiation/Assessment:	**Classroom Management and Environment:**	**What will the students be doing?**
Students who needed the extra help received guidance from our title teacher and aides. If appropriate, they will complete worksheets and test in an alternate setting.	*Each student has their own individual desk but table are available for group work.*	*To practice the various math skills students completed:* • *Assignments which correspond with the lesson* • *Assessments* • *Work with frequency tables and plots* • *White board problems* • *Problem of the Day*
Relevance	**Vocabulary**	**Assessments**
Students will begin by collecting data and creating frequency tables. They will solve problems using the data on the tables. They will then work to build line plots and stem and leaf plots to collect data and solve problems. They will use the data to find mean, median, and mode.	*Frequency* *Stem and leaf plot* *Line plot* *Mean* *Median* *Mode*	• *Daily lesson sheets* • *Teacher observation* • *Chapter Tests* • *Class Discussion* • *Written and oral explanations and student created problems.* • *White board problems*
Essential Questions: • *How can you use a frequency table to collect data?* • *How can you solve problems with a frequency table?* • *How can you describe data using mean, median, and mode?* • *How can you use a line plot to display data of fractions and whole numbers?* • *How can you use a line plot to solve real-world problems with a line plot?* • *How can you use a stem and leaf plot to display whole numbers?* • *How can you use a stem and leaf plot to solve real-world problems?*		