COURSE TITLE

Grade 5- Math

LENGTH

Full Year

DEPARTMENT

STEM Department

SCHOOL

Pierrepont Elementary School

DATE

September 10, 2018

Grade 5- Math

I.   Introduction/Overview/Philosophy

In Grade 5, instructional time should focus on three critical areas: (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to 2-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.

1. Students apply their understanding of fractions and fraction models to represent the addition and subtraction of fractions with unlike denominators as equivalent calculations with like denominators. They develop fluency in calculating sums and differences of fractions, and make reasonable estimates of them. Students also use the meaning of fractions, of multiplication and division, and the relationship between multiplication and division to understand and explain why the procedures for multiplying and dividing fractions make sense. (Note: this is limited to the case of dividing unit fractions by whole numbers and whole numbers by unit fractions.)

2. Students develop understanding of why division procedures work based on the meaning of base-ten numerals and properties of operations. They finalize fluency with multi-digit addition, subtraction, multiplication, and division. They apply their understandings of models for decimals, decimal notation, and properties of operations to add and subtract decimals to hundredths. They develop fluency in these computations, and make reasonable estimates of their results. Students use the relationship between decimals and fractions, as well as the relationship between finite decimals and whole numbers (i.e., a finite decimal multiplied by an appropriate power of 10 is a whole number), to understand and explain why the procedures for multiplying and dividing finite decimals make sense. They compute products and quotients of decimals to hundredths efficiently and accurately.

3. Students recognize volume as an attribute of three-dimensional space. They understand that volume can be measured by finding the total number of same-size units of volume required to fill the space without gaps or overlaps. They understand that a 1-unit by 1-unit by 1-unit cube is the standard unit for measuring volume. They select appropriate units, strategies, and tools for solving problems that involve estimating and measuring volume. They decompose three-dimensional shapes and find volumes of right rectangular prisms by viewing them as decomposed into layers of arrays of cubes. They measure necessary attributes of shapes in order to determine volumes to solve real world and mathematical problems.

II.   Objectives

Course Outline:

1. Whole Numbers
   a. Numbers to 10,000,000
   b. Place Value
   c. Comparing and Ordering
   d. Rounding and Estimating
2. Whole Number Multiplication and Division
   a. Using a Calculator

b. Times Table Review
c. Multiplying by Tens, Hundreds, or Thousands
d. Multiplying by Powers of Ten
e. Multiplying 2-Digit and 3-Digit Numbers
f. Dividing by Powers of Ten
g. Dividing by 2-Digit Numbers
h. Order of Operations
i. Real-World Problems: Multiplication and Division

3. Fractions and Mixed Numbers
    a. Adding Unlike Fractions
    b. Prime Factorization
    c. GCF/LCM
    d. Simplest Form
    e. Divisibility
    f. Subtracting Unlike Fractions
    g. Fractions, Mixed Numbers, and Division Expressions
    h. Expressing Fractions, Division Expressions, and Mixed Numbers of Decimals
    i. Adding Mixed Numbers
    j. Subtracting Mixed Numbers
    k. Real-World Problems: Fractions and Mixed Numbers

4. Multiplying and Dividing Fractions and Mixed Numbers
    a. Multiplying Proper Fractions
    b. Real-World Problems: Multiplying with Proper Fractions and Mixed Numbers, and Dividing with Fractions
    c. Multiplying improper fractions by fractions
    d. Multiplying mixed numbers and whole numbers
    e. Dividing Fractions and Whole Numbers

5. Algebra
    a. Patterns and Relationships
    b. Using Letters as Numbers
    c. Simplifying Algebraic Expressions
    d. Inequalities and Equations
    e. Real-World Problems: Algebra

6. Ratio
    a. Finding Ratio
    b. Equivalent Ratios
    c. Real-World Problems Involving Ratios
    d. Ratios in Fraction Form
    e. Comparing Three Quantities

7. Decimals
    a. Understanding Tenths, Hundredths, and Thousandths
    b. Comparing and Rounding Decimals
    c. Adding and Subtracting Decimals
    d. Rewriting Decimals as Fractions and Mixed Numbers

8. Multiplying and Dividing Decimals
    a. Multiplying Decimals
    b. Multiplying Decimals by Powers of Ten
    c. Dividing Decimals

      d. Dividing Decimals by Powers of Ten
      e. Estimating Decimals
      f. Real-World Problems: Decimals
9. Measurement
      a. Converting Metric Units
      b. Converting Customary Units
      c. Using Appropriate Units of Measurement
10. Graphs and Probability
      a. Making and Interpreting Line Plots
      b. Making and Interpreting Double Bar Graphs
      c. Graphing an Equation
      d. Coordinate Graphing
      e. Combinations
      f. Theoretical and Experimental Probability
11. Properties of Triangles and Four-Sided Figures
      a. Classifying Triangles
      b. Measures of Angles of a Triangle.
      c. Types of Triangles
      d. Quadrilaterals
      e. Finding the Missing Angles in Quadrilaterals
      f. Hierarchy of Quadrilaterals
12. Volume
      a. Building Solids using Unit Cubes
      b. Drawing Cubes and Rectangular Prisms
      c. Understanding and Measuring Volume
      d. Volume of Rectangular Prism and Liquid
      e. Additive Volume
      f. Counting Cubic Units to Find Volume

Student Outcomes:

After successfully completing this course, the student will:

- Analyze patterns and relationships
- Apply and extend previous understandings of multiplication and division
- Classify two dimensional figures into categories based on their properties
- Convert like measurement units within a given measurement system
- Graph points on the coordinate plane to solve real-world and mathematical problems
- Perform operations with multi-digit whole numbers and with decimals to hundredths
- Represent and interpret data
- Understand concepts of volume
- Understand the place value system
- Use equivalent fractions as a strategy to add and subtract fractions
- Write and interpret numerical expressions

New Jersey Student Learning Standards

CAREER READY PRACTICES

CRP1   Act as a responsible and contributing citizen and employee.
Career-ready individuals understand the obligations and responsibilities of being a member of a community, and they demonstrate this understanding every day through their interactions with others. They are conscientious of the impacts of their decisions on others and the environment around them. They think about the near-term and long-term consequences of their actions and seek to act in ways that contribute to the betterment of their teams, families, community and workplace. They are reliable and consistent in going beyond the minimum expectation and in participating in activities that serve the greater good.

CRP2   Apply appropriate academic and technical skills.
Career-ready individuals readily access and use the knowledge and skills acquired through experience and education to be more productive. They make connections between abstract concepts with real-world applications, and they make correct insights about when it is appropriate to apply the use of an academic skill in a workplace situation

CRP4   Communicate clearly and effectively and with reason.
Career-ready individuals communicate thoughts, ideas, and action plans with clarity, whether using written, verbal, and/or visual methods. They communicate in the workplace with clarity and purpose to make maximum use of their own and others' time. They are excellent writers; they master conventions, word choice, and organization, and use effective tone and presentation skills to articulate ideas. They are skilled at interacting with others; they are active listeners and speak clearly and with purpose. Career-ready individuals think about the audience for their communication and prepare accordingly to ensure the desired outcome.

CRP6. Demonstrate creativity and innovation.
Career-ready individuals regularly think of ideas that solve problems in new and different ways, and they contribute those ideas in a useful and productive manner to improve their organization. They can consider unconventional ideas and suggestions as solutions to issues, tasks or problems, and they discern which ideas and suggestions will add greatest value. They seek new methods, practices, and ideas from a variety of sources and seek to apply those ideas to their own workplace. They take action on their ideas and understand how to bring innovation to an organization.

CRP7. Employ valid and reliable research strategies.
Career-ready individuals are discerning in accepting and using new information to make decisions, change practices or inform strategies. They use reliable research process to search for new information. They evaluate the validity of sources when considering the use and adoption of external information or practices in their workplace situation.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.
Career-ready individuals readily recognize problems in the workplace, understand the nature of the problem, and devise effective plans to solve the problem. They are aware of problems when they occur and take action quickly to address the problem; they thoughtfully investigate the root cause of the problem prior to introducing solutions. They carefully consider the options to solve the problem. Once a solution is agreed upon, they follow through to ensure the problem is solved, whether through their own actions or the actions of others.

CRP11. Use technology to enhance productivity.
Career-ready individuals find and maximize the productive value of existing and new technology to accomplish workplace tasks and solve workplace problems. They are flexible and adaptive in acquiring new technology. They are proficient with ubiquitous technology applications. They understand the inherent risks-personal and organizational-of technology applications, and they take actions to prevent or mitigate these risks.

TECHNOLOGY

Standard 8.1 Educational Technology: All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.
Strand A. Technology Operations and Concepts: Students demonstrate a sound understanding of technology concepts, systems and operations.
8.1.5.A.1- Select and use the appropriate digital tools and resources to accomplish a variety of tasks including solving problems.
8.1.5.A.3- Use a graphic organizer to organize information about problem or issue.
Strand F: Critical thinking, problem solving, and decision making: Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
8.1.5.F.1- Apply digital tools to collect, organize, and analyze data that support a scientific finding.

Standard 8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming: All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.
Strand C. Design: The design process is a systematic approach to solving problems.
8.2.5.C.4- Collaborate and brainstorm with peers to solve a problem evaluating all solutions to provide the best results with supporting sketches or models.
Strand D. Abilities for a Technological World: The designed world is the product of a design process that provides the means to convert resources into products and systems.
8.2.5.D.3- Follow step by step directions to assemble a product or solve a problem.

21ST CENTURY LIFE AND CAREERS
9.2 Career Awareness, Exploration, and Preparation
Strand B: Career Exploration
9.2.8.B.3 Evaluate communication, collaboration, and leadership skills that can be developed through school, home, work, and extracurricular activities for use in a career.

NEW JERSEY STUDENT LEARNING STANDARDS- MATH

5.G.A.1. Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x-axis and x-coordinate, y-axis and y-coordinate).
5.G.A.2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.
5.G.B.3. Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
5.G.B.4. Classify two-dimensional figures in a hierarchy based on properties.

5.MD.A.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

5.MD.B.2. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots.

5.MD.C.3. Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

5.MD.C.4. Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and non-standard units.

5.MD.C.5. Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

     5.MD.C.5a. A cube with side length 1 unit, called a "unit cube," is said to have "one cubic unit" of volume, and can be used to measure volume.

     5.MD.C.5b. Apply the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole number edge lengths in the context of solving real world and mathematical problems.

     5.MD.C.5c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

5.NBT.A.1. Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.

5.NBT.A.2. Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.A.3. Read, write, and compare decimals to thousandths.

     5.NBT.A.3a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.

     5.NBT.A.3b. Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.

5.NBT.A.4. Use place value understanding to round decimals to any place.

5.NBT.B.5. Fluently multiply multi-digit whole numbers using the standard algorithm.

5.NBT.B.6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.B.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

5.NF.A.1. Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators.

5.NF.A.2. Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.

5.NF.B.3. Interpret a fraction as division of the numerator by the denominator $(a/b = a \div b)$. Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.NF.B.4. Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

5.NF.B.4a. Interpret the product (a/b) × q as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations a × q ÷ b. For example, use a visual fraction model to show (2/3) × 4 = 8/3, and create a story context for this equation. Do the same with (2/3) × (4/5) = 8/15. (In general, (a/b) × (c/d) = ac/bd.)

5.NF.B.4b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.

5.NF.B.5. Interpret multiplication as scaling (resizing), by:

5.NF.B.5a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

5.NF.B.5b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence a/b = (n×a)/(n×b) to the effect of multiplying a/b by 1.

5.NF.B.6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.NF.B.7. Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions.

5.NF.B.7a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for (1/3) ÷ 4, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that (1/3) ÷ 4 = 1/12 because (1/12) × 4 = 1/3.

5.NF.B.7b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for 4 ÷ (1/5), and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that 4 ÷ (1/5) = 20 because 20 × (1/5) = 4.

5.NF.B.7c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem.

5.OA.A.1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

5.OA.A.2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them.

5.OA.A.3. Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane.

Mathematical Practices
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning

III.   Proficiency Levels

This curriculum is appropriate for all grade 5 students.

IV.   Methods of Assessment

Student Assessment
The teacher will provide a variety of assessments during the course of the year. The assessment may include but is not limited to: chapter and unit tests and quizzes, teacher observations, open-ended problems, cooperative work, and homework.

Curriculum/Teacher Assessment
The teacher will provide the subject area supervisor with suggestions for changes on an ongoing basis.

V.   Grouping

This curriculum is appropriate for all students in grade 5.

VI.   Articulation/Scope & Sequence/Time Frame

Course length is one year.

VII.   Resources

Texts/Supplemental Reading/References

   Math in Focus, Marshall Cavendish, 2015

VIII.   Suggested Activities

Appropriate activities are listed in the curriculum map.

IX.   Methodologies

The following methods of instruction are suggested: teacher guided explorations, working in groups/working with a partner, working with manipulatives and discovery activities.

X.   Interdisciplinary Connections

At this grade level, connections to many other disciplines are appropriate and natural. Reading and writing become an integral part of the mathematics process. Connections with science are frequent throughout both curricula. Technology plays an important part in learning mathematics as well.

XI.   Differentiating Instruction for Students with Special Needs: Students with Disabilities, Students at Risk, English Language Learners, and Gifted & Talented Students

Differentiating instruction is a flexible process that includes the planning and design of instruction, how that instruction is delivered, and how student progress is measured. Teachers recognize that students can learn in multiple ways as they celebrate students' prior knowledge. By providing appropriately challenging learning, teachers can maximize success for all students.

Differentiating in this course includes but is not limited to:

Differentiation for Support (ELL, Special Education, Students at Risk)
- Peer mentoring on problems
- Differentiated teacher feedback on assignments
- Modeling out problems on whiteboard
- Visual aids as we project problems on whiteboard
- Study guides
- Tiered assignments
- Scaffolding of materials and assignments
- Re-teaching and review
- Guided note taking
- Exemplars of varied performance levels
- Multi-media approach to accommodating various learning styles

Differentiation for Enrichment
- Supplemental reading material for independent study
- Flexible grouping
- Tiered assignments
- Topic selection by interest
- Enhanced expectations for independent study
- Elevated questioning techniques using Webb's Depth of Knowledge matrix

XII.   Professional Development

The teacher will continue to improve expertise through participation in a variety of professional development opportunities.

XII.   Curriculum Map/Pacing Guide

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
Whole Numbers • Numbers to 10,000,000 • Place Value • Comparing and Ordering • Rounding and Estimating	3 weeks	*For Support:* • Place value mats • Place value chips • Place Value paddles • Notes • Interactive Websites • IXL • Modification of Content • Interactive games • Simplified word problems For Enhancement: • Enrichment workbook • Classroom Videos	5.NBT.A.1 5.NBT.A.2 5.NBT.A.4 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* • Homework • Questioning on Whole Numbers concepts • IXL • Classwork • Critical Thinking Skill Practice • Quizlet Live • Kahoot *Summative Assessment:* • Chapter Quiz • Chapter Test on Whole Numbers
Whole Number Multiplication and Division • Using a Calculator • Times Table Review • Multiplying by Tens, Hundreds, or Thousands • Multiplying by Powers of Ten • Multiplying 2-Digit and 3-Digit Numbers • Dividing by Powers of Ten • Dividing by 2-Digit	5 weeks	*For Support:* • Times table games • Timed times table quizzes • Highlighting portions of problems • Hands-on projects for division • Partial product and traditional algorithm comparison • IXL • Calculator • Modification of Content • Flipped Classroom • Interactive websites	5.NBT.A.1 5.NBT.A.2 5.NBT.B.5 5.OA.A.1 5.OA.A.2 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* • Homework • Questioning • IXL • Classwork • Critical Thinking Skill Practice • Quizlet Live • Kahoot • Open Ended *Summative Assessment:* • Chapter Quiz

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
Numbers ● Order of Operations ● Real-World Problems: Multiplication and Division		● Simplified word problems *For Enhancement:* ● Problems with more intricate numbers ● Finding missing factors, dividends, and divisors ● Multi-step Word Problems ● Enrichment Workbooks		● Chapter Test on Whole Number Multiplication and Division
Fractions and Mixed Numbers ● Adding Unlike Fractions ● Prime Factorization ● GCF/LCM ● Simplest Form ● Divisibility ● Subtracting Unlike Fractions ● Fractions, Mixed Numbers, and Division Expressions ● Expressing Fractions, Division Expressions, and Mixed Numbers of Decimals ● Adding Mixed Numbers ● Subtracting Mixed Numbers ● Real-World Problems: Fractions and Mixed Numbers	4 weeks	*For Support:* ● IXL ● Highlighting portions of problems ● Visual Models ● Cuisinaire Rods ● Modification of Content ● Simplified word problems ● Number lines *For Enhancement:* ● Videos ● Khan Academy ● Multi-step Word Problems	5.NF.A.1 5.NF.A.2 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Group Work on Fractions ● Classwork ● Critical Thinking Skill Practice ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Fractions and Mixed Numbers
Multiplying and Dividing Fractions and Mixed Numbers ● Multiplying Proper Fractions ● Real-World Problems: Multiplying with Proper Fractions and Mixed Numbers, and Dividing with Fractions	4 weeks	*For Support:* ● Modification of Content ● Cuisinaire Rods ● Visual Models ● Highlighting portions of problems ● IXL ● Simplified word problems	5.NF.B.3 5.NF.B.4 5.NF.B.5 5.NF.B.6 5.NF.B.7 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork and Collaborative Work on Fractions and Mixed Numbers ● Critical Thinking Skill Practice

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
● Multiplying improper fractions by fractions ● Multiplying mixed numbers and whole numbers ● Dividing Fractions and Whole Numbers		*For Enhancement:* ● Intricate Problems ● Multi-step Word Problems	8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	● Quizlet Live ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Multiplying and Dividing Fractions and Mixed Numbers
Algebra ● Patterns and Relationships ● Using Letters as Numbers ● Simplifying Algebraic Expressions ● Inequalities and Equations ● Real-World Problems: Algebra	4 weeks	*For Support:* ● Modified Work ● IXL ● Scaffolded Problems ● Videos ● Algebra Tiles ● Scales and Balances ● Simplified word problems *For Enhancement:* ● Khan Academy Videos ● Enrichment Workbooks ● Peer Tutoring	5.OA.A.1 5.OA.A.2 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork ● Critical Thinking Skill Practice on the Applications of Variables ● Quizlet Live ● Kahoot *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Algebra
Ratio ● Finding Ratio ● Equivalent Ratios ● Real-World Problems Involving Ratios ● Ratios in Fraction Form ● Comparing Three Quantities	3 weeks	*For Support:* ● Modified Content ● Color Coding ● IXL ● Simplified word problems *For Enhancement:* ● Proportions ● Enrichment Workbook ● Peer Tutoring	5.NF.A.1 5.NF.A.2 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning on Applications of Ratios ● IXL ● Classwork ● Critical Thinking Skill Practice ● Quizlet Live ● Kahoot ● Open Ended Questions on

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
				Rations *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Ratio
Decimals ● Understanding Tenths, Hundredths, and Thousandths ● Comparing and Rounding Decimals ● Adding and Subtracting Decimals ● Rewriting Decimals as Fractions and Mixed Numbers	2 weeks	*For Support:* ● Place Value Mats ● Place Value Chips ● Hands-on Games ● Flipped Classroom Videos ● Interactive Websites *For Enhancement:* ● Enrichment Workbooks ● Peer Tutoring	5.NBT.A.1 5.NBT.A.2 5.NBT.A.3 5.NBT.A.4 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork ● Critical Thinking Skill Practice ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz ● PBL Decimal Grocery Store Project ● Chapter Test on Decimals
Multiplying and Dividing Decimals ● Multiplying Decimals ● Multiplying Decimals by Powers of Ten ● Dividing Decimals ● Dividing Decimals by Powers of Ten ● Estimating Decimals ● Real-World Problems: Decimals	3 weeks	*For Support:* ● Hands-on Projects ● Color Coding Problems ● Number Lines ● Use of a calculator *For Enhancement:* ● Enrichment Workbooks ● Peer Tutoring ● Student choice	5.NBT.B.5 5.NBT.B.6 5.NBT.B.7 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Class Discussions on Decimals ● IXL on Multiplying and Dividing Decimals ● Classwork ● Critical Thinking Skill Practice ● Quizlet Live ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
				● Chapter Test on Multiplying and Dividing Decimals
Measurement ● Converting Metric Units ● Converting Customary Units ● Using Appropriate Units of Measurement	3 weeks	*For Support:* ● Visual Scaffolds ● Hands-on activities ● Pneumonic devices ● Simplified word problems ● Visual reminders of common conversions *For Enhancement:* ● Multi-step conversions ● Multi-step word problems ● Hands-on measurement	5.MD.A.1 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork ● Critical Thinking Skill Practice ● Quizlet Live ● Kahoot ● Open Ended ● Collaborative Work *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Measurement
Graphs and Probability ● Making and Interpreting Line Plots ● Making and Interpreting Double Bar Graphs ● Graphing an Equation ● Coordinate Graphing ● Combinations ● Theoretical and Experimental Probability	3 weeks	*For Support:* ● Modified classwork, tests, and quizzes ● Visuals using Khan Academy, ED Puzzle ● Use of assisted technology ● Hands-on graphing Projects *For Enhancement:* ● Math in Focus Enrichment packet on graphs and probabilty	5.MD.B.2 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● Classwork ● Critical Thinking Skill Practice ● Quizlet Live ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Graphs and Probability

Unit Topic	Time Allocated	Differentiating Instruction for Students with Disabilities, Students at Risk, English Language Learners, & Gifted & Talented Students	Standards	Assessments
Properties of Triangles and Four-Sided Figures ● Classifying Triangles ● Measures of Angles of a Triangle. ● Types of Triangles ● Quadrilaterals ● Finding the Missing Angles in Quadrilaterals ● Hierarchy of Quadrilaterals	3 weeks	*For Support:* ● Quadrilateral Flow Chart ● Protractors ● Geoboards ● Tangrams ● Interactive Websites ● Games *For Enhancement:* ● Enrichment Workbook	5.MD.C.3 5.MD.C.4 CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork ● Quizlet Live ● Kahoot ● Open Ended *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Triangles and Four-Sided Figures
Volume ● Building Solids using Unit Cubes ● Drawing Cubes and Rectangular Prisms ● Understanding and Measuring Volume ● Volume of Rectangular Prism and Liquid ● Additive Volume ● Counting Cubic Units to Find Volume	3 weeks	*For Support:* ● Building with manipulatives (cubes) ● Khan Academy Videos on Volume ● IXL Practice on Volume ● Modified classwork, quizzes, and tests *For Enhancement:* ● Multi-Step Word Problems ● Math in Focus Enrichment Workbook pages on Volume ● Building models	5.MD.C.5a 5.MD.C.5b 5.MD.C.5c CRP1,2,4,6,7,8,11,12 8.1.5.A.1, 8.1.5.A.3, 8.1.5.F.1 8.2.5.C.4, 8.2.5.D.3 9.2.8.B.3	*Formative Assessment:* ● Homework ● Questioning ● IXL ● Classwork ● Critical Thinking Skill Practice ● Quizlet Live ● Kahoot *Summative Assessment:* ● Chapter Quiz ● Chapter Test on Volume