Unit 1: Place value and operations with whole numbers and decimals

Content Area: **Mathematics**
Course(s): **Math - Grade 5**
Time Period: **2 marking periods**
Length: **16 Weeks**
Status: **Published**

Unit Overview

Students will understand the place value system up to the thousandths place.

Students will perform all operations with multi-digit whole numbers and add, subtract, and multiply decimals to hundredths.

Students will interpret and evaluate numerical expressions (order of operations).

Benchmarks:

In the beginning of this unit, students will complete the first benchmark assessment (LinkIt Form A SGO) covering all units. Use these scores to level students and track progress.

At the end of this unit, students will complete the second benchmark assessment (LinkIt Form B SGO) covering all units. Use these scores to measure growth and continue tracking progress.

Transfer

Students will be able to independently use their learning to...

Solve real world problems by performing operations with multi-digit whole numbers and decimals to hundredths to demonstrate understanding of the place value system.

Meaning

Understandings

Students will understand...

- Place value is an important tool for solving problems and checking that solutions make sense.
- How to use the order of operations to evaluate numerical expressions
- The difference aspects of multiplication and stress that multiplication involves a logical progression of steps.
- The different aspects and process of dividing both single and multi-digit numbers.
- The different aspects of adding and subtracting decimals.
- The different aspects of mutliplying decimals.

Essential Questions

Students will keep considering..

- How does the position of a digit in a number relate to its value?
- What strategies can be used to multiply whole numbers?
- What strategies can be used to divide whole numbers?
- What strategies can I use to divide by a two-digit number?
- How can I use place value and properties to add and subtract decimals?
- How is multiplying decimals similar to multiplying whole numbers?

Application of Knowledge and Skill

Students will know...

Students will know...

- The place value system from the thousandths to the millions place.
- How to multiply multi-digit whole numbers.
- The process for dividing with one and two-digit divisors.
- The process for adding, subtracting, and multiplying decimal operations.
- The Associative, Commutative, Distributive, Identity, and Zero Properties.
- That their knowledge of all four operations with whole numbers can be extended to decimals.

Students will be skilled at...

Students will be skilled at...

- Determining the value of each digit in a decimal
- Reading, writing and recognizing decimals
- Comparing, ordering and rounding whole numbers and decimals.
- Solving problems with all four operations with whole numbers using the standard algorithm, equations, rectangular arrays and/or area models.
- Performing adding, subtracting, and multiplication operations with decimals to the hundredths.
- Identifying and applying the properties to help solve problems.

Academic Vocabulary

Content and Cognitive Vocabulary:

Place-Value Chart

Period

Place

Place Value

Standard form

Expanded Form

Decimal

Decimal Point

Equivalent Decimals

Sum

Difference

Evaluate

Prime Factorization

Product

Exponent

base

power

squared

cubed

powers of 10

distributive property

compatible numbers

fact family

unknown variable

variable

dividend

divisor

quotient

remainder

partial quotients

commutative property of addition

associate property of addition

identity property of addition

numerical expressions

inverse operations

associate property of multiplication

commutative property of multiplication

identity property of multiplication

LEARNING GOAL 1: Whole Number and Decimal Place Value

Students will be able to understand place value system and apply that understanding to perform addition and subtraction with multi digit whole numbers and decimals to hundreths.

Daily Targets- Place Value

SWBAT:

- Read and write whole numbers through the millions. **(Chapter 1, Lesson 1) (DOK 1)**
- Compare and order whole numbers through millions. **(Chapter 1, Lesson 2) (DOK 1)**
- Use models to relate decimals to fractions. Represent fractions that name tenths, hundedth, and thousandths as decimals. **(Chapter 1, Lessons 3-4) (DOK 3)**
- Understand place value in decimal numbers. Read and write decimals in standard form, expanded form, and word form. **(Chapter 1, Lessons 5-6) (DOK 3)**
- Compare decimals. **(Chapter 1, Lesson 7) (DOK 2)**
- Order whole numbers and decimals. **(Chapter 1, Lesson 8) (DOK 2)**
- Solve problems using the four- step plan. **(Chapter 1, Lesson 9 to review four step plan/ "Power Up!" resource for practice state testing problems) (DOK 4)**

Examples:

1. 34.18 The following number can be written in standard form (shown before), expanded form: (3x10) + (4x1) + (1 x 1/10) + (8 x 1/100), and word form: thirty-four and eighteen hundredths

2. 74,932.158: The underlined digit is in the hundreds place and the value of the 9 is 900.

3. See My Math Chapter 1, Lesson 3.

4. Compare 4.4 to 4.44

5. Order the following numbers from least to greatest: 9.275;8.950;9.375

MA.K-12.1	Make sense of problems and persevere in solving them. Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain

	correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, “Does this make sense?” They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.
MA.K-12.2	Reason abstractly and quantitatively. Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to decontextualize—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to contextualize, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.
MA.K-12.3	Construct viable arguments and critique the reasoning of others. Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.
MA.K-12.4	Model with mathematics. Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.
MA.5.NBT	Number and Operations in Base Ten

MA.5.NBT.A	Understand the place value system.
MA.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.
MA.5.NBT.A.3	Read, write, and compare decimals to thousandths.
MA.5.NBT.A.3a	Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., 347.392 = 3 × 100 + 4 × 10 + 7 × 1 + 3 × (1/10) + 9 × (1/100) + 2 × (1/1000).
MA.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.
MA.5.NBT.A.4	Use place value understanding to round decimals to any place.

Daily Targets- Add and Subtract Decimals (Level of Difficulty 3 Analysis)

SWBAT:

- Round decimals. **(Chapter 5, Lesson 1) (DOK 1)**
- Estimate sums and differences by rounding. **(Chapter 5, Lesson 2) (DOK 1)**
- Solve problems by using an estimate or exact answer. **(Chapter 5, Lesson 3/ "Power Up!" resource for practice state testing problems) (DOK 4)**
- Adding decimals with base-ten blocks, models, and by lining up the decimal points. **(Chapter 5, Lessons 4-6) (DOK 3)**
- Use the Associative, Commutative, and Identity Properties to add whole numbers and decimals mentally. **(Chapter 5, Lesson 7) (DOK 1)**
- Subtracting decimals with base-ten blocks, models, and by lining up the decimal points. **(Chapter 5, Lessons 8-10) (DOK 3)**

Examples:

1. Round 9.848 to the nearest hundredths place. 9.85
2. 3.37 + 1.43
3. 4 - 1.2
4. 2.3 - 1.55

MA.5.NBT.A.3	Read, write, and compare decimals to thousandths.
MA.5.NBT.A.4	Use place value understanding to round decimals to any place.
MA.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.

LEARNING GOAL 2: Multiplying Whole Numbers and Decimals

Students will be able to multiply multi-digit whole numbers and decimals.

Daily Targets- Multiply Whole Numbers & Order of Operations

SWBAT:

- Find the prime factoriation of numbers. **(Chapter 2, Lesson 1) (DOK 2)**
- Use powers and exponents in expressions. **(Chapter 2, Lesson 3) (DOK 2)**
- Use the order of operations to evaluate expressions. **(Chapter 7, Lesson 1-2) (DOK 2)**
- Use basic facts and patterns to mutiply multiples of 10, 100, and 1,000 mentally. **(Chapter 2, Lesson 4) (DOK 1)**
- Make a table to solve problems. **(Chapter 2, Lesson 5/ "Power Up!" resource for state testing practice problems) (DOK 4)**
- Explore multiplication by using area models. Use the Distributive Property to multiply mentally. **(Chapter 2, Lessons 6-7) (DOK 3)**
- Estimate products by using rounding and compatible numbers. **(Chapter 2, Lesson 8) (DOK 2)**
- Multiply up to a three- digit number by a one- digit number. **(Chapter 2, Lesson 9) (DOK 2)**
- Multiply up to a three- digit number by a two- digit number. **(Chapter 2, Lesson 10) (DOK 2)**

Examples:

1. Write 3x3x3x3 using an exponent: 3^4

2. Write 3^4 as a product. 3x3x3x3= 81

3. $3^2 + (8+2) / 2 = 14$

4. Use area models to multiply two numbers like 3 and 24.

$3 \times 24 = (3 \times 20) + (3 \times 4)$ Find partial products.
$= 60 + 12$ Multiply.
$= 72$ Add.

5. Find products like 4×65 mentally by using the Distributive Property.

$4 \times 65 = 4 \times (60 + 5)$ Write 65 as 60 + 5.
$= (4 \times 60) + (4 \times 5)$ Use the Distributive Property.
$= 240 + 20$ Multiply.
$= 260$ Add.

6. Multiply numbers like 78 and 32.

78	Multiply the ones: 78 ×
× 32	2.
156	Multiply the tens: 78 ×
+ 2,340	30.
2,496	Add.

MA.5.OA	Operations and Algebraic Thinking
MA.5.OA.A	Write and interpret numerical expressions.
MA.5.OA.A.1	Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.
MA.5.NBT.B	Perform operations with multi-digit whole numbers and with decimals to hundredths.
MA.5.NBT.B.5	Fluently multiply multi-digit whole numbers using the standard algorithm.
MA.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.
MA.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.

Daily Targets- Multiply Decimals

SWBAT:

- Estimate products of whole numbers and decimals. **(Chapter 6, Lesson 1) (DOK 2)**
- Explore multiplying decimals by whole numbers. Multiply decimals by whole numbers. **(Chapter 6, Lessons 2-3) (DOK 3)**
- Explore using decimal models to multiply decimals. Multply decimals by decimals. **(Chapter 6, Lessons 4-5) (DOK 3)**
- Multiply decimals by powers of ten. **(Chapter 6, Lesson 6) (DOK 2)**
- Solve problems by looking for a pattern. **(Chapter 6, Lesson 7/ "Power Up!" resource for practice state testing problems) (DOK 4)**
- Use the Associative, Commutative, and Identity Properties to multiply mentally. **(Chapter 6, Lesson 8) (DOK 1)**

Example:

Multilply numbers like 2.32 x 1.5 = 3.48

MA.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.
MA.5.NBT.B	Perform operations with multi-digit whole numbers and with decimals to hundredths.
MA.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.
MA.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.

LEARNING GOAL 3: Dividing Whole Numbers and Decimals

Students will be able to divide multi-digit whole numbers and decimals.

Daily Targets- Dividing Whole Numbers

SWBAT:

- Explore division using base ten models and carry out division with and without remainders. **(Chapter 3, Lessons 2-3) (DOK 3)**
- Use basic facts and patterns to divide multiples of 10, 100, and 1,000 mentally. **(Chapter 3, Lesson 4) (DOK 2)**
- Estimate quotients by using rounding and compatible numbers. **(Chapter 3, Lesson 5) (DOK 2)**
- Divide using the distributive property with and without an area model **(Chapter 3, Lesson 7) (DOK 3)**
- Divide Three and Four-Digit Dividends **(Chapter 3, Lesson 8) (DOK 2)**
- Solve division problems with zeros in the quotient: beginning, middle, and end. **(Chapter 3, Lessons 9-10) (DOK 2)**
- Interpret the remainder in a division problem. **(Chapter 3, Lessons 11-12) (DOK 3)**
- Determine extra or missing information. **(Chapter 3, Lesson 13/ "Power Up!" resource) (DOK 4)**
- Estimate quotients with two-digit divisors. **(Chapter 4, Lesson 1) (DOK 2)**
- Explore division using base ten models and divide up to a three-digit number by a two-digit number. **(Chapter 4, Lessons 2-4) (DOK 3)**
- Divide greater numbers by multi-digit divisors **(Chapter 4, Lesson 5) (DOK 2)**
- Solve problems by solving a simplier problem. **(Chaper 4, Lesson 6/ "Power Up!" resource) (DOK 4)**

Examples:

1. Traditional Algorithm

$$\begin{array}{r} 1\ 5 \\ 23\overline{)3\ 4\ 5} \\ -\ 2\ 3 \\ \hline 1\ 1\ 5 \end{array}$$

$$\begin{array}{r} -\ 1\ 1\ 5 \\ \hline 0 \end{array}$$

2. Using a Model

Solve a division problem like 268 ÷ 4 using an area model.

50	15	2
4 200	**60**	**8**

Divide each section by 4.

200 ÷ 4 = 50 60 ÷ 4 = 15 8 ÷ 4 = 2

Add the quotients. 50 + 15 + 2 = 67

MA.K-12.1	Make sense of problems and persevere in solving them. Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.
MA.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.
MA.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.

Daily Targets- Dividing Decimals

SWBAT:

- Estimate quotients of decimals and whole numbers. **(Chapter 6, Lesson 9) (DOK 2)**
- Divide decimals by whole numbers with and without models. **(Chapter 6, Lessons 10-11) (DOK 2)**
- Divide decimals by decimals with and without models. **(Chapter 6, Lessons 12-13) (DOK 2)**
- Divide decimals by powers of ten. **(Chapter 6, Lesson 14) (DOK 3)**

Example:

0.66 divided by 0.3 = 2.2

3.51 divided by 0.78 = 4.5

5 divided by 0.1 will relate well to subsequent understanding of the place value chart. This example shows that when we divide by powers of 10, the exponent above the 10 indicates how many places the decimal point is moving (how many times we are dividing by 10 , the number becomes ten times smaller). Since we are dividing by powers of 10, the decimal point moves to the left. Students need to be provided with opportunities to explore this concept and come to this understanding; this should not just be taught.

MA.5.NBT.B	Perform operations with multi-digit whole numbers and with decimals to hundredths.
MA.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.
MA.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.

Formative Assessment and Performance Opportunities

- Teacher observation
- Math journals
- Do-nows
- Exit slips
- Quick checks during class
- Classwork activities and games
- Center work/ small group work
- Group work activities
- Homework
- Google Classroom questions
- Common Google Forms quick checks
- Kahoot
- ALEKS
- Leveled Readers
- Power Up for state assessment (for spiral review)
- Chapter 1 Project Based Learning- Map It (Student workbook page 2)
- Chapter 2 Project Based Learning- About How Much? (Student workbook page 72)
- Chapter 3 Project Based Learning- Real- World Divison (Student workbook page 150)
- Chapter 4 Project Based Learning- Plan a Field Trip! (Student workbook page 244)
- Chapter 5 Project Based Learning- Food Drive (Student workbook page 296)
- Chapter 6 Project Based Learning- Tree House (Student workbook page 372)
- Chapter 1 Performance Task- *Setting Goals* (Student workbook pages 70 PT1-PT2)
- Chapter 5 Performance Task- *Planning for a Mountain Bike Trip* (Student workbook pages 371PT1-PT2)
- Chapter 2 Performance Task- *Buying Cards* (Student workbook pages 148PT1-PT2)

- Chapter 3 Performance Task- *Saving for a Field Trip* (Student workbook pages 242PT1-PT2)
- Chapter 4 Performance Task- *Constructing Frames for Habitat Models* (Student workbook pages 294PT1-PT2)
- Chapter 6 Performance Task- *Healthy Snack* (Student workbook pages 470PT1-PT2)

Summative Assessment

- Teacher Observation
- Quizzes
- Common Assessment
- My Math Chapters 1-7 Teacher Made Assessments
- Projects
- Rubrics
- Short & Extended Constructed Response
- Homework

21st Century Life and Careers & Technology

CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CAEP.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.
TECH.8.1.5.A.2	Format a document using a word processing application to enhance text and include graphics, symbols and/or pictures.
TECH.8.1.5.A.3	Use a graphic organizer to organize information about problem or issue.
TECH.8.1.5.A.CS1	Understand and use technology systems
TECH.8.1.5.C.CS1	Interact, collaborate, and publish with peers, experts, or others by employing a variety of digital environments and media
TECH.8.1.5.C.CS2	Communicate information and ideas to multiple audiences using a variety of media and formats.
TECH.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.
TECH.8.2.5.D.3	Follow step by step directions to assemble a product or solve a problem.

Accommodations and Modifications

- IEP modifications
- 504 accomodations
- BSI support
- ELL vocabulary/ word webs
- English Learner Support Interactive Guide/ Tiered Questions: ***Early American Settlements*** **Spanish**

Reader and Real- World Problem Solving Spanish Reader

- Leveled Readers: ***Early American Settlements*** **are available in 3 lexile reader levels**
- Interactive Guide: Scaffolded differentiated activities (emergenging, expanding, bridging levels)
- Leveled learning centers
- Use of manipulatives/ models: **base ten blocks, hundreds grids, blank place value chart, blank area models**
- Performance Tasks
- Reteach lesson pages: **Chapters 1-7**
- Enrich lesson pages: **Chapters 1-7**
- Co-teach environment
- Small group instuction
- Various forms of assessments
- Math fact charts: **Chapters 2**
- Divisibility rule chart: **Chapter 2**
- Advanced Learners: **Project Based Learning**

Unit Resources

MyMath Grade 5, Vol. 1 Teacher Edition, Chapters 1-6 and Student Workbook: 2014 McGraw-Hill Education

My Math Online Portal

Teacher Made assessments

Benchmarks 1&2

- http://bealearninghero.org/
- http://forstudentsuccess.org/
- https://www.illustrativemathematics.org/
- The Link It Learning Library (Use the reporting dashboard to pull up a test, click on the blue bar for the class you wish to examine, click on standards tab when student data appears, and double click on the color coded percentage mastery box to open the learning library)
- Desmos is a fun site that can be used as a graphing calculator but also has lessons already created
    - https://www.desmos.com/
- Coherence Map is a website to enhance student learning
- http://achievethecore.org/coherence-map/#4/17/160/214/1
    - https://student.desmos.com/

YouCubed Math games and activities

- https://www.youcubed.org/

Proficiency Scale

Unit 1 -- Proficiency Scale -- Numbers and Operations in Base Ten -- Chapters		
Topic: Perform operations with multi-digit whole numbers and with decimals to hu		
Grade: 5 **(5.NBT.1) Recognize that each place is 10 times larger than the place to its right.** **(5.NBT. 2) Explain patterns in powers of ten, be able to show and explain powers of ten.** **(5.NBT. 3a-b) Read, write, and compare whole numbers and decimals to the thousandths place in standard, word, and expanded** **(5. NBT. 4) Use place value to round decimals.** **(5.NBT. 5) Fluently multiply multi-digit whole numbers by using the standard algorithm.** **(5.OA.A.1)Write and evaluate numerical expressions.** **(5.OA.A.1)? Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.** **(5.OA.A.1) Use the order of operations (PEMDAS) to evaluate expressions** **(5.NBT. 6) Find whole number quotients up to four-digit dividends using arrays, area models, and the standard method.** **(5.NBT. 7) Add and subtract decimals.**		
Score 4	**I can develop strategies to solve complex problems on my own .**	
Score 3 (Learning Goal) What students will be able to do	**I am able to apply strategies to add, subtract, multiply and divide whole numbers and decimals.**	
Score 2 What students will know	**I can:** • **Multiply single and multi-digit numbers** • **Use patterns in multiplication** • **Read, write and compare whole numbers and decimals** • **Round whole numbers and decimals** • **Divide whole numbers**	
Score 1	**I can read whole numbers and decimals with teacher assistance.**	

Interdisciplinary Connections

The *Early American Settlements* Real-World Problem Solving Reader gives students an opportunity to estimate distances between two points on a map, add distances expressed as decimals, multiply with decimals and whole numbers when determining the cost of land, and finding the difference between two large numbers when looking at the past and current bison populations.

MA.5.NBT.B	Perform operations with multi-digit whole numbers and with decimals to hundredths.
LA.RF.5.4	Read with sufficient accuracy and fluency to support comprehension.
LA.RF.5.4.A	Read grade-level text with purpose and understanding.
SOC.6.1.8.2	Colonization and Settlement (1585-1763)
SOC.6.1.8.CS2	Colonization and Settlement: The colonists adapted ideas from their European heritage and from Native American groups to develop new political and religious institutions and economic systems. The slave labor system and the loss of Native American lives had a lasting impact on the development of the United States and American culture.