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| **Unit 1 Mathematics – In this unit you will extend your knowledge of numbers as you solve problems using whole numbers, decimals, and fractions. You will also study factorization and exponents.** | | | | | | | | | |
| ***Essential Questions:*** | | | | | | | | | |
| * What is the algorithm for adding, subtracting, multiplying and dividing decimals? * How can you compare and order fractions and mixed numbers in simplest form? | | | | * How can you express a composite number as a product of prime numbers using exponents? | | | | * What are two ways to show the GCF and LCM of a whole number? * What is the algorithm for multiplying and dividing fractions and mixed numbers? | |
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| **Learning Target** | | | | | | **Your Proof:** | | | |
| ***(1). I can solve decimals addition, subtraction, multiplication and division equations and real life word problems.***  This means I can correctly compare and order decimals least to greatest. I can add and subtract multi-digit decimals. I can explain how to estimate products and quotients. I can multiply and divide multi-digit decimals.  I can solve real-word problems by finding the average of items and explain if my answer is reasonable. I can also find the unit cost of an item. | | | | | |  | | | |
| ***Rate Your Level of Understanding:*** | | | | | |
| **1** | **2** | **3** | **4** | | **5** |
| ***Grades Earned:*** | | | | | |
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| ***(2). I can express a composite number as a product of prime numbers using exponents.***  This means I can identify difference between composite and prime numbers. I can show the prime factorization of a number using exponents. I can evaluate an expression that include exponents. | | | | | |  | | | |
| ***Rate Your Level of Understanding:*** | | | | | |
| **1** | **2** | **3** | **4** | | **5** |
| ***Grades Earned:*** | | | | | |
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| ***(3). I can explain two methods to find the Greatest Common Factor and lowest common multiple of a number.***  This means I can list all the factors of a number and apply divisibility rules to multi-digit numbers.  I can list all factors of a number and use division by prime to find the GCF of a number.  I can list all the multiples of a number and use division by prime to find the LCM of a number. | | | | | |  | | | |
| ***Rate Your Level of Understanding:*** | | | | | |
| **1** | **2** | **3** | **4** | | **5** |
| ***Grades Earned:*** | | | | | |
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| ***(4). I can compare and order fractions including mixed numbers in simplest form.***  This means I can write equivalent fractions and reduce to simplest terms.  I can use a number line to represent a list of fractions.  I can compare fractions using inequalities and put fractions in order from least to greatest. | | | | | |  | | | |
| ***Rate Your Level of Understanding:*** | | | | | |
| **1** | **2** | **3** | **4** | | **5** |
| ***Grades Earned:*** | | | | | |
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| ***(5). I can multiply fractions and mixed numbers and reduce my answer to simplest terms.***  This means I solve equations where I multiply fractions together and reduce my answer to simplest terms.  I can also multiply mixed numbers and reduce the product to simplest terms.  I can use the algorithm to divide fractions and mixed numbers.  I can read and solve real world problems that use fractions and mixed numbers. | | | | | |  | | | |
| ***Rate Your Level of Understanding:*** | | | | | |
| **1** | **2** | **3** | **4** | | **5** |
| ***Grades Earned:*** | | | | | |
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| ***Vocabulary to Master:*** | | | | | | | | | |
| * Visual representation | | * Prime number | | | * Evaluate | | * Least common multiple | | * Greatest common factor |
| * Proper fraction | | * Mixed number | | | * Conjecture | | * Simulate | | * Annex |
| * Algorithm | | * Factor | | | * Composite number | | * Least common denominator | | * Improper fraction |
| * reciprocal | | * Prime Factorization | | | * inequalities | |  | |  |