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**Unit 1: Number System Fluency**

Students solve word problems that require the four operations with fractions, decimals and whole numbers. They understand the relationship between multiplication and division, relate division of fractions to division of whole numbers and can explain why their methods for dividing fractions work. Students also study the relationships between common factors and multiples, including the relationship between factors, multiples, and the distributive property.

**Assessments**

Unit 1 Pre-Assessment

using integer exponents.

Power school

**17% of the GMAS**

**No calculator**

**20 days or about 4 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
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|  |  |  |  |  |  |  |
| 5 | 6  **First Day of School**  Expectations, ice breakers, | 7  Culture Building and Norm Setting | 8 | 9 | 10  **Unit 1 – Number System Fluency**  Compute fluently with multi-digit numbers,decimals, and find common factors and multiples  Compute fluently with multi-­‐digit numbers, decimals, and find common factors and multiples | 11 |
|  |  |  |  |  |
| 12 | 13 | 14 | 15 | 16  **Unit 1 – Number System Fluency**  Compute fluently with multi-digit numbers,decimals, and find common factors and multiples | 17 | 18 |
|  |  |  |  |  |  |  |
| 19 | 20 | 21  **Unit 1 – Number System Fluency**  ***\*Apply and extend previous understandings of multiplication and division to divide fractions by fractions:* Interpret and compute quotients of fractions,and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.** | 22 | 23 | 24 | 25 |
|  |  |  |  |  |  |  |
| 26 | 27 | 28  **Unit 1 – Number System Fluency**  ***\*Apply and extend previous understandings of multiplication and division to divide fractions by fractions:* Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.** | 29 | 30 | 31 |  |
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**Unit 2: Ratio, Rates, and Proportional Reasoning** Students learn that ratios are a comparison of two quantities which can be either part to whole or part to part comparisons. They come to understand the unit rate as a “per one” relationship. For example, if a worker makes $120 in 3 hours, his unit rate for each hour is $40. They learn that two equivalent ratios represent a proportion and they create tables of equivalent ratios to represent a proportional situation and solve proportion problems. They also create and analyze the graphs of proportional relationships to learn that these graphs are always linear and always contain (0, 0).

**Assessments**

Unit 1 Post-Assessment

Unit 2 Pre-Assessment

Unit 2 Post-Assessment

Comprehensive Test

**12% of the GMAS**

**Calculator use**

**13 days or about 3weeks**

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|  |  |  |  |  |  |
| 2 | 3  Labor Day | 4 | 5 | 6 | 7  **Unit 1 - Extend/Review/Assess/Reteach**  **Unit 1 – Number System Fluency**  ***\*Apply and extend previous understandings of multiplication and division to divide fractions by fractions:* Interpret and compute quotients of fractions and solve word problems involving division of fractions by fractions, e.g., by using visual fraction models and equations to represent the problem.** | 8 |
|  | **Teacher Professional Learning/In Service** |  |  |  |  |
| 9 | 10 | 11  **Unit 2 – Ratio, Rates, and Proportional Reasoning**  ***\*Understand Ratio Concepts and use ratio reasoning to solve problems***  **Understanding Ratios** | 12 | 13 | 14 | 15 |
|  |  |  |  |  | **Comprehensive Test** |  |
| 16 | 17  **Unit 2 – Ratio, Rates, and Proportional Reasoning**  ***\*Understand Ratio Concepts and use ratio reasoning to solve problems***  **Understanding Unit Rate** | 18 | 19 | 20 | 21 | 22 |
|  |  |  |  |  |  |  |
| 23/30 | 24 | 25 | 26  **Unit 2 – Ratio, Rates, and Proportional Reasoning**  ***\*Understand Ratio Concepts and use ratio reasoning to solve problems***  **Using Ratios and Unit Rates to Solve Problems** | 27 | 28  **Unit 2 - Extend/Review/Assess/Reteach** | 29 |
|  |  |  |  |  |  |  |

**Unit 3: Expressions** Students study the conceptual meaning of exponents and how to accurately simplify numerical expressions that contain exponents. They analyze the similarities and differences between numerical expressions and expressions that contain a variable. They write expressions that represent verbal descriptions and vice versa. They simplify variable expressions by substituting given values. Lastly, they create equivalent expressions by using the properties of operations and simplify them using the conceptual understanding of like terms.

**Assessments**

Unit 3 Pre-Assessment

Unit 3 Post-Assessment

Unit 4 Pre-Assessment

Comprehensive Test

**11% of the GMAS**

**Calculator use ok**

**15 days or about 2 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  | 1  **Unit 3 – Expressions**  ***\*Apply and extend previous understandings of arithmetic to algebraic expressions***  **Simplify Numerical Expressions Involving Exponents** | 2 | 3 | 4 | 5 | 6 |
|  |  |  |  |  |  |  |
| 7 | 8  **Unit 3 – Expressions**  ***\*Apply and extend previous understandings of arithmetic to algebraic expressions***  **Understand Algebraic Expressions** | 9 | 10 | **11**  **Teacher Professional Learning/In Service** | **12**  **Fall Break** | 13 |
|  |  |  |  |  |
| 14 | 15  **Unit 3 – Expressions**  ***\*Apply and extend previous understandings of arithmetic to algebraic expressions***  **Generate Equivalent Expressions** | 16 | 17 | 18 | 19  **Comprehensive Test** | 20 |
|  |  |  |  |  |  |
| 21 | 22 | 23  **Unit 3 – Expressions**  ***\*Apply and extend previous understandings of arithmetic to algebraic expressions***  **Generate Equivalent Expressions** | 24 | 25 | 26  **Unit 3 - Extend/Review/Assess/Reteach** | 27 |
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| 28 | 29 | 30 | 31 |  |  |  |
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**Unit 4 – One-Step Equations and Inequalities**

***\*Reason about and solve one-­‐variable equations and inequalities* Write A One-­‐Variable Equation to Model A Problem and Solve**

**Unit 4: One-step Equations and Inequalities**

Students use their previous skills and understandings for variable expressions to solve one-step equations and inequalities. They accurately translate problem situations to equations and inequalities and understand the concept of balance and how it relates to the process of solving equations and inequalities. They understand that while an equation in one variable has just one solution, an inequality in one variable has infinitely many solutions and demonstrate this understanding by accurately graphing the solution set of an inequality on a number line. Lastly, students start to analyze the relationship between the independent and dependent variables for equations in two variables and the graphs of their solution sets.

**Assessments**

Unit 4 Post-Assessment

**12% of the GMAS**

**Calculator use**

**18 days or about 4 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  |  |  |  | 1  **Unit 4 – One-Step Equations and Inequalities**  ***\*Reason about and solve one-­‐variable equations and inequalities* Write A One-­‐Variable Equation to Model A Problem and Solve** | 2 | 3 |
|  |  |  |  |  |  |  |
| 4 | 5 | 6 | 7 | 8  **Unit 4 – One-Step Equations and Inequalities**  ***\*Reason about and solve one-­‐variable equations and inequalities* Write A One-­‐Variable Equation to Model A Problem and Solve** | 9 | 10 |
|  |  |  |  |  |  |  |
| 11 | 12 | 13 | 14  **Unit 4 – One-Step Equations and Inequalities**  ***\*Reason about and solve one-­‐variable equations and inequalities* Write A One-­‐Variable Equation to Model A Problem and Solve Problems** | 15 | 16  **Unit 6 – Linear Models and Tables** | 17 |
|  |  |  |  |  |  |  |
| 18 | 19 | 20 | 21 | 22 | 23  **Thanksgiving Holiday** | 24 |
|  |  |  |  |  |  |  |
| 25 | 26  **Unit 4 – One-Step Equations and Inequalities**  ***\*Represent and analyze quantitative relationships between dependent and independent variables*** | 27 | 28 | 29 | 30  **Unit 4 - Extend/Review/Assess/Reteach** |  |
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**Unit 5: Area and Volume** Students decompose plane and three dimensional shapes into the parts that enable them to derive the formulas for finding their measures. They understand the proportional relationship between the parts and how they are scaled to calculate the overall measurement being sought. For example, they understand that volume is the area of the Base (B) times the height. They use their previous skills in solving one-step equations and computing with fractions, decimals, and whole number units to solve problems involving missing sides, edges, base areas, face areas, area, surface area, and volume.

**Assessments**

Unit 5 Post-Assessment

Comprehensive Test

Power School

**18% of the GMAS**

**Calculator use**

**14 days or about 3 weeks**

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| 2 | 3  **Unit 5 – Area and Volume**  Solve real-­‐world and mathematical problems involving area, surface area, and volume. (This unit supports the previous NS, RP, and EE standards.)  Area of Quadrilaterals, Triangles and Irregular Polygons | 4 | 5 | 6 | 7  **Comprehensive Test** | 8 |
|  |  |  |  |  |  |  |
| 9 | 10    **Unit 5 – Area and Volume**  Surface area of Rectangular and Triangular Prisms and Pyramids | 11 | 12 | 13 | 14 | 15 |
| 16 | 17  **Unit 5 – Area and Volume**  Volume of Rectangular Prisms with Fractional Edge Lengths | 18 | 19 | **20**  **End of First Semester**  **Unit 5 - Extend/Review/Assess/Reteach**  **Benchmark** | **21** | 22 |
| 24/31 | 25 | 26 | 27 | 28  **Semester Break (December 21 January 2)** | 29 | 30 |

**Unit 6: Statistics**

Students gather, represent and examine real-life data distributions in frequency tables, histograms, box plots and line plots to determine the “shape” of the data. They study the measures of central tendency (mean, median, and mode) and measures of variability (range, interquartile range, outliers, and mean absolute deviation). They understand how data can be skewed to the right or to the left of the center by outliers and how to determine the best measure of center to use in different situations.

**Assessments**

Power School

Unit 6 Pre-Assessment

Unit 6 Post-Assessment

**17% of the GMAS**

**Calculator use**

**15 days or about 4 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  |  | 1 | 2 | **3** | **4** | 5 |
|  |  | **Semester Break** |  | **Teacher Professional Learning/In Service** | |  |
| 6 | **7**  **First Day of Semester**  **Expectations Review** | 8 | 9 | 10 | 11 | 12 |
|  | Unit 6 – Statistics  Develop an Understanding of Statistical Variability |  |  |  |
| 13 | 14 | 15  Unit 6 – Statistics  Develop an Understanding of Statistical Variability | 16 | 17 | 18 | 19 |
|  |  |  |  |  |  |  |
| 20 | **21**  **MLK Birthday** | 22 | 23 | 24  Unit 6 – Statistics  Analyze Data Distributions | 25 | 26 |
|  |  |  |  |  |  |
| 27 | 28 | 29  Unit 6 – Statistics  Analyze Data Distributions | 30 | 31  **Unit 6 - Extend/Review/Assess/Reteach**  **Benchmark** |  |  |
|  |  |  |  |  |  |  |

**Units 7 & 8: Rational Explorations & Operations** Students explore the meaning of rational numbers as the set of all numbers and their opposites

(𝑏 ≠ 0). They explore the real-

life contexts and uses of rational numbers and solve comparison and ordering problems in contexts. They also understand absolute value as the distance from zero, that distance cannot be negative, and accurately use the symbol for absolute value. By correctly plotting rational numbers on number lines, they conceptually understand how to compare and order rational numbers using their relative positions on the line.

Students also learn why the properties for operating on fractions also work to operate on all rational numbers. They work with real world contexts for rational numbers and demonstrate their understanding using number lines and other tools. Finally they apply their understanding of fractions as division and division of rational numbers to convert rational numbers to decimals.

**Assessments**

Units 7-8 Pre-Assessment

**13% of the 6th GMAS**

**21% of the 7th GMAS**

**No Calculator**

**5 days or about 1 week**

**23 days or about 5 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  |  |  |  |  | 1  **Comprehensive Test** | 2 |
|  |  |  |  | **Unit 6 – Linear Models and Tables** | **Unit 6 – Linear Models and Tables** |  |
| 3 | 4 | 5 | 6 | 7  **Unit 7 – Rational Explorations**  ***\*Apply and extend previous understandings of numbers to the system of rational numbers***  **Numbers and Their Opposites: Understand that every rational number can be represented as a unique point on the number line that represents its relationship to other rational numbers. Put rational numbers in order based on their location on the number line. Solve problems in the coordinate plane.** | 8 | 9 |
|  |  |  |  |  |  |  |
| 10 | 11 | 12  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1)**  ***\*Interpret sums of rational numbers in real-­‐world contexts.* Describe real-­‐life situations in which opposite quantities combine to make 0. Explore Absolute Value and define opposites as those numbers that have the same Absolute Value. Show that a number and its opposite have a sum of 0 (are additive inverses).** | 13 | 14 | 15 | 16  **Unit 6 - Extend/Review/Assess/Reteach** |
|  |  |  |  |  |  |  |
| 17 | **18 19**  **Winter Break** | | 20 | 21  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1)**  *\*Extend representations of adding and subtracting rational numbers on* the number line to understand p + q as the number located a distance |𝒒| *from p, in the positive or negative direction depending on whether q is* positive or negative. Represent addition of rational numbers on a number line | 22 | 23 |
|  |  |  |  |  |  |  |
| 24 | 25  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1)**  *\*\*Show that the distance between two rational numbers is the absolute value of their difference and apply this* understanding in real world contexts. Understand the subtraction of rational numbers as adding the additive inverse. Represent subtraction of rational numbers on a number line | 26 | 27 | 28 |  |  |

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**Unit 9: Expressions and Equations**

In this unit, students deepen their understanding of operations with rational numbers while working with expressions and linear equations. Students use the properties of operations to generate equivalent expressions and write equations in different forms. They also deepen their understanding of inequalities.

**Assessments**

Unit 7/8 Post-Assessment

**17% of the 7th GMAS**

**Calculator ok**

**10 days or about 2 weeks**

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| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  |  |  |  |  | 1  **Unit 7 & 8 – Mid Assessment** | 2 |
|  |  |  |  |  |  |  |
| 3 | 4 | 5 | 6  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1)**  ***\*Use the relationship between addition and multiplication and multiplication and division to understand multiplication and division of rational numbers.*** | 7 | 8 | 9 |
|  |  |  |  |  |  |  |
| 10 | 11  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1) *\*Understand that if p and q are integers, and q is not 0, then*** *− !𝒑! = !𝒑 =  𝒑* ***. Convert a rational number to a***  **𝒒 𝒒 !𝒒 *decimal using long division. Know that the decimal form of a rational number terminates in zeroes or***  \*Understand that if p and q are integers, and q is not 0, then − !𝒑! = !𝒑 =  𝒑 . Convert a rational number to a  𝒒 𝒒 !𝒒  decimal using long division. Know that the decimal form of a rational number terminates in zeroes or | 12 | 13 | 14  **Comprehensive Test** | 15  **Teacher Professional Learning** | 16 |
|  |  |  |  |  |  |
| 17 | 18 | 19 | 20  **Unit 8 – Operations with Rational Numbers (Grade 7 Unit 1)**  ***\*Use the relationship between addition and multiplication and multiplication and division to understand multiplication and division of rational numbers.*** | 21 | 22  **Grade 6 Accl. Units 7 & 8 Extend/Review/Assess/ Reteach** | 23 |
|  |  |  |  |  |  |  |
| 24/31 | 25 | 26  **Unit 9 – Expressions and Equations (Grade 7 Unit 2)**  \*Generate equivalent expressions using the properties of operations to add, subtract, factor, and expand linear expressions with rational coefficients.  \*Understand contexts for simplifying, such as an increase of 5% is 0.05a + 1a is the same as 1.05a. | 27 | 28 | 29 | 30 |
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| Sunday  **Unit 9: Expressions and Equations**  In this unit, students deepen their understanding of operations with rational numbers while working with expressions and linear equations. Students use the properties of operations to generate equivalent expressions and write equations in different forms. They also deepen their understanding of inequalities.  **Assessments**  EOG April 16th-May 1st  Unit 9 Post-Assessment  **17% of the 7th GMAS**  **Calculator ok**  **10 days or about 2 weeks** | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  | 1  **Unit 9 – Expressions and Equations (Grade 7 Unit 2)**  ***Use variables to represent quantities in a real-­‐world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities. Problems should include rational numbers. Solve equations in the form px + q = r and p (x + q) = r fluently.*** | 2 | 3 | 4  **GA Milestones EOG Review** | 5 | 6 |
|  |  | | | | |  |
| 7 | **8** | **9** | **10** | **11** | **12** | 13 |
|  | **Spring Break (April 8-12)** | | | | |  |
| 14 | 15 | 16 | 17  **GA Milestones Review** | 18 | 19 | 20 |
|  |  |  |  |  |  |  |
| 21 | 22  **GA Milestones EOG** | 23 | 24 | 25 | 26  **Grade 6 Accl. Unit 9 Extend/Review/Assess/ Reteach** | 27 |
|  |  |  |  |  |  |  |
| 28 | 29 | 30 | **Unit 10 – Ratios and Proportional Reasoning (Grade 7 Unit 3)**  ***\*Analyze proportional relationships: Decide if two quantities are proportional by graphing and analyzing tables of ratios. Understand that a proportional relationship is in the form of t = pn where p is the constant of proportionality or unit rate. Explain the meaning of (1, r) in the graph of a proportional relationship where r is the unit rate and that all proportional relationships are straight lines that contain (0, 0).*** |  |  |  |
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| Sunday  **Unit 10: Ratios and Proportional Reasoning**  The concepts in this unit are critical foundations for the Grade 8 study of linear functions. In this unit, students extend their understanding of ratios from Grade 6. Students graph proportional relationships and understand the unit rate *informally* as a measure of the steepness of the related line and that all proportional graphs are straight lines that contain (0, 0). They distinguish proportional relationships from other relationships. Students use their understanding of ratios and proportionality to solve a wide variety of percent problems, including those involving discounts, interest, taxes, tips, and percent increase or decrease. Students solve problems about scale drawings by relating corresponding lengths between the figures or by using the fact that relationships of lengths between corresponding parts are proportional in similar figures.  **Assessments**  Unit 10 Post-Assessment  **22% of the 7th GMAS**  **Calculator ok**  **20 days or about 3 weeks** | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|  |  |  | 1 | 2  **Unit 10 – Ratios and Proportional Reasoning (Grade 7 Unit 3)**  ***\*Analyze proportional relationships: Decide if two quantities are proportional by graphing and analyzing tables of ratios. Understand that a proportional relationship is in the form of t = pn where p is the constant of proportionality or unit rate. Explain the meaning of (1, r) in the graph of a proportional relationship where r is the unit rate and that all proportional relationships are straight lines that contain (0, 0).*** | 3 | 4 |
|  |  |  |  |  |  |  |
| 5 | 6  **Enrichment Curricula** | 7 | 8  **Unit 10 – Ratios and Proportional Reasoning (Grade 7 Unit 3)**  ***Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent of error.*** | 9 | 10 | 11 |
|  |  |  |  |  |  |  |
| 12 | 13 | 14 | 15  **Unit 10 – Ratios and Proportional Reasoning (Grade 7 Unit 3)**  **Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale. Examine the relationships between perimeter and area of similar figures.** | 16 | 17  **Grade 7 Unit 3 - Extend/Review/Assess/Reteach** | 18 |
|  |  |  |  |  |  |  |
| 19 | 20 | 21 | 22 | 23 | 24  **Post Planning** | 25 |
|  |  |  |  | **Last Day of School** |  |
| 26 | 27 | 28 | 29 | 30 | 31 |  |
|  | **Memorial Day** |  |  |  |  |  |
|  |  |  |  |  |  |  |