**Challenger Middle School Course Syllabus Course Name: \_\_Math\_\_ Grade: \_\_7th\_\_**

**Quarter 3 Start Date: January 31, 2024 Quarter 3 End Date: April 12, 2024**

**Quarter 4 Start Date: April 15, 2024 Quarter 4 End Date: June 14, 2024**

**7th Math**

**District Course Code:** Q700MA2

**CEDARS Course Code:**

**Certificated Teacher:** Angela Tice

**Grading:** A, B, C, D, F

**Course Description:**

***Unit 5 -*** Rational Number Arithmetic - In this unit, students interpret signed numbers in contexts (e.g., temperature, elevation, deposit and withdrawal, position, direction, speed and velocity, percent change) together with their sums, differences, products, and quotients.

***Unit 6 -*** Expressions, Equations, and Inequalities - In this unit, students solve equations of the forms px+q=r and p(x+q)=r where p, q, and r are rational numbers.

**Text/Resources Provided:**

Illustrative Mathematics Student Text for each unit and supplies required for each lesson. Course materials in class canvas course.

**Online resources:**

Illustrative Mathematics, Imagine Math, Class Canvas Course

**Common Core Standards Addressed In This Course :**

**Quarter 3: Priority Standards**

| **7.EE.4** | **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.**   1. **Solve word problems leading to equations of the form *px* + *q* = *r* and *p*(*x* + *q*) = *r*, where *p*, *q*, and *r* are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*** |
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| **7.NS.1** | **Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.**   1. **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. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.** 2. **Understand subtraction of rational numbers as adding the additive inverse, p - q = p + (-q). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.** |
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| **7.NS.2** | **Apply and extend previous understandings of fractions to multiply and divide rational numbers.**  **B. Understand that integers can be divided, provided that the divisor is not zero, and every**  **quotient of integers (with non-zero divisor) is a rational number. If p and q are integers, then**  **-(p/q) = (-p)/q = p/(-q). Interpret quotients of rational numbers by describing contexts.** |
| **7.NS.3** | **Solve real-world and mathematical problems involving the four operations with rational numbers** |

**Quarter 4: Priority Standards**

| **7.EE.1** | **Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.** |
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| **7.EE.3** | **Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation.** |
| **7.EE.4** | **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.**   1. **Solve word problems leading to equations of the form *px* + *q* = *r* and *p*(*x* + *q*) = *r*, where *p*, *q*, and *r* are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach. *For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm. What is its width?*** 2. **Solve word problems leading to inequalities of the form px + q > r or px + q < r, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.** |

**Course Objectives:**

To pass this course, the student will demonstrate mastery of standards through assignments, projects and/or assessments:

**Quarter 3:**

**Unit 5 - Proportional Relationships and Percentages**

Section 1 - Lessons 1–7: Adding and Subtracting Rational Numbers

Section 2 - Lessons 8–12: Multiplying and Dividing Rational Numbers

Section 3 -Lessons 13–17: Four Operations with Rational Numbers

**Quarter 4:**

**Unit 6 - Expressions, Equations, and Inequalities**

Section 1 - Lessons 1–6: Representing Situations of the Form of *px*+*q*=*r* and *p*(*x*+*q*)=*r*

Section 2 - Lessons 7–12: Solving Equations of the Form *px*+*q*=*r* and *p*(*x*+*q*)=*r* and Problems That Lead to Those Equations

## Section 3 - Lessons 13–17: Inequalities

## Section 4 - Lessons 18–23: Writing Equivalent Expressions

Final - Unit Assessment

**COURSE GRADE REQUIREMENTS**

**Standards-Based Grading:**

Grading will be standards based. All assignments are expected to be completed to standard; this is a "B". "A" is exceeding standards; demonstrating a deeper and extended understanding of the material. If tests/projects do not meet standard they will need to be revised within the grading period.

**Formative Assessment – 20%:** This includes assignments that assess student learning of a concept and may be a worksheet, team projects, or a quiz.

**Summative** **Assessment- 80% of grade:** Students **CANNOT** pass without passing the assessments. Included are: tests, essays, and projects. Assessments are directly tied to one or more standards.

**Make up/Retake policy**: All tests can be retaken until the student demonstrates mastery of the content. Retake opportunities may require extra preparation.

**Grading Scale: This year we are transitioning to a 4 point standards based scale, similar to what is used in elementary school.**

| **22-23 CHALLENGER MIDDLE STANDARDS-BASED GRADING SCALE** | | | |
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| **SBG SCORE** | **DESCRIPTION** | | **LETTER ALIGNMENT** |
| **4** | **Exceeding Standards -** Consistently meets requirements for exceptional work related to course standards and demonstrates a deep level of knowledge and skill | | A  80-100 |
| **3** | **Meeting Standards -** Consistently meets most requirements for proficient work related to course standards and demonstrates grade level knowledge and skills | | B  60-80 |
| **2** | **Approaching Standards -** Consistently meets some requirements for proficient work related to course standards and demonstrates some grade level knowledge and skills | | C  40-60 |
| **1** | **Attempting Standards -** With or without consistent support student is making limited progress towards standards - progress report meeting required | | D  20-40 |
| **0** | **Insufficient Evidence -** With consistent help, no  demonstration of key standards - progress report meeting required | | F  0-20 |

**Academic Honesty:**

We are here to learn and grow as scholars and as such strive to produce our best original work. We will be exploring the concepts of plagiarism, cheating, and academic integrity throughout our courses.

Progress and course assignment/project completion will be evaluated at least monthly by the teacher.

**Classroom Expectations and Norms:**

**Expectation:**

If what you are doing: INTERFERES with learning, HURTS someone's heart, PREVENTS you from being your best self… You shouldn’t be doing it!

**Norms:**

* Everyone has the right to be heard.
* Be respectful while still being critical.
* No name calling.
* One person speaks at a time.
* Hold yourself and each other to high standards of excellence at all times.
* Have the humility to recognize that you do not know everything and that everyone can stand to improve.
* Recognize that everyone will start from different bases of knowledge.