# 2022/2023 Scope and Sequence

Grade:  7th                Month: Sept/Oct

Content Area: Math: Pre-Algebra 1

Sub Content: Integers, Rational Numbers

| What our students will know and be able to do | Learning Activities | Materials | Assessment tools | Notes |
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| - Ch 1:<br>- Apply and extend previous understandings of addition, subtraction and absolute value to add and subtract rational numbers in authentic contexts. Understand subtraction as adding the additive inverse, $p - q = p + (-q)$.<br>- Describe situations in which opposite quantities combine to make 0.<br>- Understand $p + q$ as the number located a distance $|q|$ from $p$, in the positive or | - Ch 1 and 2:<br>- Guided notes<br>- Section Practice in R&P Journal<br>- Section exercises in the book<br>- IXL practice<br>- Practice HOs | - Math spiral notebooks<br><br>- Big Ideas Red Accelerated: Textbook, Record & Practice Journal<br><br>- IXL | - Grading: Section Quizzes<br>- IXL completed work (% given)<br>- Graded Chapter tests<br>- Mini assessments given after each section as informal assessment | - Practice HOs from TPT (freebies) OR self created |

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| 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.<br>● Apply properties of operations as strategies to add and subtract rational numbers.<br>● Apply and extend previous understandings of multiplication and division and of fractions to multiply and divide rational numbers. Interpret operations of rational numbers solving problems in authentic contexts.<br>● 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 | | | | |

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| are integers, then -(p/q) = (-p)/q = p/(-q). Interpret quotients of rational numbers by describing real-world contexts.<br>● Ch 2:<br>● Understand that equivalent rational numbers can be written as fractions, decimals and percents.<br>● Solve real-world and mathematical problems involving the four operations with rational numbers.<br>● Apply properties of operations as strategies to multiply and divide rational numbers.<br>● Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in 0s or eventually repeats. | | | | |

| What our students will know and be able to do | Learning Activities | Materials | Assessment tools | Notes |
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| <ul><li>Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.</li><li>Understand that rewriting an expression in different forms in a contextual problem can show how quantities are related.</li><li>Solve real-life and mathematical problems using numerical and algebraic expressions and equations.</li><li>Solve word problems leading to equations</li></ul> | <ul><li>Ch 3:</li><li>Guided notes</li><li>Section Practice in R&P Journal</li><li>Section exercises in the book</li><li>IXL practice</li><li>Practice HOs</li></ul> | <ul><li>Math spiral notebooks</li><li>Big Ideas Red Accelerated: Textbook, Record & Practice Journal</li><li>IXL</li></ul> | <ul><li>Grading: Section Quizzes</li><li>IXL completed work (% given)</li><li>Graded Chapter tests</li><li>Mini assessments given after each section as informal assessment</li></ul> | <ul><li>Practice HOs from TPT (freebies) OR self created</li></ul> |

| 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.<br>● | | | | |
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# 2022/2023 Scope and Sequence

**Grade:** 7th  **Month:** Jan/Feb

**Content Area:** Math: Pre-Algebra 1

**Sub Content:** Inequalities

Ratios & Proportions

| What our students will know and be able to do | Learning Activities | Materials | Assessment tools | Notes |
|---|---|---|---|---|
| <ul><li>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.</li><li>Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.</li><li>Recognize and represent</li></ul> | <ul><li>Ch 4:</li><li>Guided notes</li><li>Section Practice in R&P Journal</li><li>Section exercises in the book</li><li>IXL practice</li><li>Practice HOs</li><li></li><li>Ch 5:</li><li>Guided notes</li><li>Section Practice in R&P Journal</li><li>Section exercises in the book</li><li>IXL practice</li><li>Practice HOs</li></ul> | <ul><li>Math spiral notebooks</li><li>Big Ideas Red Accelerated: Textbook, Record & Practice Journal</li><li>IXL</li></ul> | <ul><li>Grading: Section Quizzes</li><li>IXL completed work (% given)</li><li>Graded Chapter tests</li><li>Mini assessments given after each section as informal assessment</li></ul> | <ul><li>Practice HOs from TPT (freebies) OR self created</li></ul> |

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| proportional relationships between quantities.<br>● (RP.2: a, b, c, & d)<br>● Use proportional relationships to solve multistep ratio and percent problems.<br><br>● | | | | |

# 2022/2023 Scope and Sequence

Grade: 7th        Month: March/April/May

Content Area: Math: Pre-Algebra 1

Sub Content: Percents

              Constructions & Scale Drawings

              Circles & Area

| What our students will know and be able to do | Learning Activities | Materials | Assessment tools | Notes |
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| <ul><li>Use Proportional relationships to solve multistep ratio and percent problems.</li><li>Solving multistep real-life and mathematical problems posed with positive and negative rational numbers in any form, using tools strategically. Apply properties of operations to calculate with numbers in any form;convert between forms as appropriate; and</li></ul> | <ul><li>Ch 6:</li><li>Guided notes</li><li>Section Practice in R&P Journal</li><li>Section exercises in the book</li><li>IXL practice</li><li>Practice HOs</li><li></li><li>Ch 7:</li><li>Guided notes</li><li>Section Practice in R&P Journal</li><li>Section exercises in the book</li><li>IXL practice</li><li>Practice HOs</li><li></li><li>Ch 8:</li><li>Guided notes</li></ul> | <ul><li>Math spiral notebooks</li><li>Big Ideas Red Accelerated: Textbook, Record & Practice Journal</li><li>IXL</li></ul> | <ul><li>Grading: Section Quizzes</li><li>IXL completed work (% given)</li><li>Graded Chapter tests</li><li>Mini assessments given after each section as informal assessment</li></ul> | <ul><li>Practice HOs from TPT (freebies) OR self created</li></ul> |

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| assess the reasonableness of answers using mental computation and estimation strategies.<br>● 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.<br>● Draw geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle,or no triangle.<br>● Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and are of a circle. | ● Section Practice in R&P Journal<br>● Section exercises in the book<br>● IXL practice<br>● Practice HOs<br>● | | | |

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| ● Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure. | | | | |