Standards Plus High Impact Standards - Mathematics – Grade 7

Domain	Lesson	Focus	Digital Lesson #	Standard(s)
Ratios & Proportional Relationships	1	Unit Rate	1	7.RP.1: Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.
	2	Unit Rate	2	
	3	Unit Rate	3	
	4	Unit Rate	4	
	A1	Assessment – Unit Rate	A1	
		Performance Lesson – *Using Unit Rates*		
	5	Proportional Relationships	5	7.RP.2a: Decide whether two quantities are in a proportional relationship.
	6	Proportional Relationships	6	7.RP.2a, 7.RP.2b: Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
	7	Proportional Relationships	7	
	8	Proportional Relationships	8	
	A2	Assessment – Proportional Relationships	A2	
	9	Proportional Relationships	9	7.RP.2a, 7.RP.2b
	10	Proportional Relationships	10	
	11	Multistep Ratio Problems	11	7.RP.3: Use proportional relationships to solve multi-step ratio and percent problems.
	12	Multistep Ratio Problems	12	
	A3	Assessment – Proportional Relationships	A3	7.RP.2a, 7.RP.2b, 7.RP.3
The Number System	1	Opposite Quantities on the Number Line	1	7.NS.1a: Describe situations in which opposite quantities combine to make 0.
	2	Opposite Quantities on the Number Line	2	
	3	Adding Rational Numbers on the Number Line	3	7.NS1.b: 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.
	4	Adding Rational Numbers on the Number Line	4	
	A1	Adding Rational Numbers	A1	7.NS.1a, 7.NS.1b
	5	Adding Quantities on the Number Line	5	7.NS.1b
	6	Subtraction and Additive Inverses	6	7.NS1c: 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.
	7	Absolute Value on a Number Line	7	
	8	Absolute Value in Real-World Contexts	8	
	A2	Assessment – Adding and Subtracting Rational Numbers	A2	7.NS.1b, 7.NS.1b
	9	Multiplying Integers with Tiles	17	7.NS.2a: Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as $(–1)(–1) = 1$ and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
	10	Multiplying Integers on a Number Line	18	
	11	Integers and the Distributive Property	19	
	12	Products in Real-World Contexts	20	
	A3	Assessment – Multiplying Integers	A5	

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The Number System	13	Decimals and the Distributive Property	21	7.NS.2a
	14	Multiplying Fractions	22	7.NS.2a, 7.NS.2b:
	15	Dividing Rational Numbers	23	7.NS.2b: 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 real world contexts.
	16	Dividing Rational Numbers	24	
	A4	Assessment – Multiplying and Dividing Rational Numbers	A6	7.NS.2a, 7.NS.2b
	17	Multiplying Rational Numbers	25	7.NS.2c: Apply properties of operations as strategies to multiply and divide rational numbers.
	18	Dividing Rational Numbers	26	
	19	Converting Rational Numbers to Decimals	27	7.NS.2d: 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.
	20	Converting Rational Numbers to Decimals	28	
	A5	Assessment – Multiplying, Dividing and Converting Rational Numbers	A7	7.NS2c, 7.NS2d
		Performance Lesson – *Multiplying and Dividing Rational Numbers*		
	21	Solving Problems Involving the Four Operations with Rational Numbers	29	7.NS3: Solve real-world and mathematical problems involving the four operations with rational numbers.
	22	Solving Problems Involving the Four Operations	30	
	23	Solving Real-World Problems	31	
	24	Solving Real-World Problems	32	
	A6	Solving Real-World Problems	A8	
Expressions and Equations	1	Simplify Algebraic Expressions	1	7.EE.1: Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
	2	Generate Equivalent Expressions	2	
	3	Generate Equivalent Expressions	3	
	4	Generate Equivalent Expressions	4	
	A1	Assessment – Generating Equivalent Expressions	A1	
	5	Factor Generate Equivalent Expressions	5	7.EE.1
	6	Factor Generate Equivalent Expressions	6	
	7	Expressions in Problem Situations	7	7.EE.2: Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.
	8	Expressions in Problem Situations	8	
	A2	Assessment – Use Properties of Operations to Generate Equivalent Expressions	A2	7.EE.1 & 7.EE.2
		Performance Lesson – *Working with Expressions*		

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Expressions and Equations	9	Solve Multi-Step Real-Life Problems	9	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 strategies.
	10	Solve Multi-Step Real-Life Problems	10	
	11	Solve Multi-Step Real-Life Problems	11	
	12	Solve Multi-Step Real-Life Problems	12	
	A3	Assessment – Solving Multi-Step Real-Life Problems	A3	
	13	Solve Equations in the Form of $px + q = r$	17	7.EE.4a: 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.
	14	Solve Equations in the Form of $p(x + q) = r$	18	
	15	Solve Word Problems	19	
	16	Solve Word Problems	20	
	A4	Assessment – Solve Linear Equations and Word Problems	A5	
		Performance Lesson – *Equations*		
	17	Solve Word Problems	21	7.EE.4a
	18	Solve Linear Equations and Word Problems	22	
	19	Solve and Graph Solutions to Inequalities	23	7.EE.4b: Solve word problems leading to nequalities 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 nequality and interpret it in the context of the problem.
	20	Solve and Graph Solutions to Inequalities	24	
	A5	Assessment – Solve Equations and Inequalities	A6	7.EE.4a and 7.EE.4b