Assessment Plan

Grade 7 Unit 5: Equations and Inequalities

Standards/Topics	Conceptual Understanding	Procedural Skill & Fluency	Application
6.EE.5. Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? Use and explain substitution in order to determine whether a given number in a specified set makes an equation or inequality true.	**1 Equations and Inequalities** Lesson 1 *Pre-assessment* *Self-assessment Skeleton* *Answer Key*		
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.			**8 Problem Solving using Equations Gallery Walk** Lesson 3 *Formative* *Observation Checklist* **10 Critiquing Task** Lesson 3 *Summative* *Rubric*
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. a. 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 solutions to an arithmetic solution, identifying the sequence of the operations used in each approach		**2 7.EE.4a Practice Problems** Lesson 1 *Formative* *Answer Key*	**3 Equations and Archaeology** Lesson 1 *Summative* *Answer Key*

Assessment Plan

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. b. 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.		**4 Inequalities Using Addition and Subtraction** Lesson 2 *Formative* **5 Inequalities Using Multiplication and Division** Lesson 2 *Formative*	**9 Problem Solving using Inequalities Gallery Walk** Lesson 3 *Formative* *Observation Checklist* **6 Interpreting Representations** Lesson 2 *Summative* Match graph and context and Justify *Answer Key/Rubric* **7 Bingo Game** Lesson 2 *Summative*
7.G.4 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 area of a circle.	**11 7.G.4 Practice with Circles** Lesson 4 *Formative Assessment* *Answer Key*	**12 7.G.4 Circles Assessment** Lesson 4 *Summative* *Answer Key*	
MP 3 Construct viable arguments and critique the reasoning of others.	**Problem Solving using Equations Gallery Walk** **Problem Solving using Inequalities Gallery Walk** **Critiquing Task**		
MP 4 Model with mathematics.	**Problem Solving using Inequalities Gallery Walk** **Interpreting Representations**		
MP 6 Attend to precision.	**Equations and Inequalities** **Problem Solving using Equations Gallery Walk** **Problem Solving using Inequalities Gallery Walk** **Critiquing Task**		

Sample Lesson Sequence:

1. Use variables to represent quantities and solve word problems leading to equations – 7.EE.4a
2. **Use variables to represent quantities and solve word problems leading to inequalities – 7.EE.4b (model lesson)**
3. Solve multi step real life problems – 7.EE.3
4. Use the formulas to solve for the circumference and area of a circle – 7.G.4