WAKE COUNTY PUBLIC SCHOOL SYSTEM

**Middle School Programs**
***Building Healthy Core Learning***
***Math 7 Plus, Unit 4***

# *Math 7 Plus Unit 4 Overview: Inequalities*

| **Unit Outcomes**<br>At the end of this unit, your student should be able to: | **Key Vocabulary**<br>Terms to deepen the student's understanding |
|---|---|
| ✓ Write inequalities to represent a situation<br>✓ Solve inequalities<br>✓ Graph solutions to inequalities on a number line | ✓ Additive Inverses<br>✓ Algebraic Expression<br>✓ Algebraic Inequality<br>✓ Coefficients<br>✓ Constant<br>✓ Distributive Property<br>✓ Expression<br>✓ Inequality<br>✓ Integers<br>✓ Like Terms<br>✓ Maximum in an Inequality<br>✓ Minimum in an Inequality<br>✓ Numeric Expression<br>✓ Rational Numbers<br>✓ Solution Set |
| **Key Standards Addressed**<br>Connections to Common Core/NC Essential Standards | **Where This Unit Fits**<br>Connections to prior and future learning |
| 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.<br><br>7.EE.4b. - 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. *For example: As a salesperson, you are paid $50 per week plus $3 per sale. This week you want your pay to be at least $100. Write an inequality for the number of sales you need to make, and describe the solutions.* | **Coming into this unit, students should have a strong foundation in:**<br>✓ Operations with rational numbers<br>✓ Solving equations for a single variable<br>✓ Writing equations for verbal expressions<br><br>**This unit builds to the following future skills and concepts:**<br>✓ Linear inequalities<br>✓ Systems of linear inequalities |
| **Additional Resources**<br>Materials to support understanding and enrichment | **"Learning Checks"**<br>Questions Parents Can Use to Assess Understanding |
| ✓ Teaching videos made by Wake County teachers<br>✓ WCPSS YouTube Channel – Math Playlist<br>✓ Solving Inequalities and Graphing Their Solutions<br>✓ Solving Inequalities<br>✓ Quiz Yourself on Solving and Graphing Inequalities<br>✓ How to Write Inequalities from Word Problems<br>✓ Writing Inequalities from Word Problems | ✓ What are some situations that could be represented by inequalities rather than equations?<br>✓ How do you know that it is necessary to flip the inequality sign on an algebraic inequality?<br>✓ How is solving inequalities similar to solving equations? Are there any differences?<br>✓ How do you check to see if a number is a solution to an inequality?<br>✓ What are some verbal expressions that represent inequalities? |

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*** Please note**, the unit guides are a work in progress. If you have feedback or suggestions on improvement, please feel free to contact wakemiddle@wcpss.net.