

Richmond Public Schools
Department of Curriculum and Instruction
Curriculum Pacing And Resource Guide – Unit Plan



Course Title/ Course #: Algebra 1

Unit Title/ Marking Period # (MP#1): Solving Linear Equations

Start day:

Meetings (Length of Unit): 4

<i>Desired Results ~ What will students be learning?</i>
<u>Standards of Learning/ Standards</u>
A.5 The student will solve multistep linear inequalities in two variables, including a) solving multistep linear inequalities algebraically and graphically; b) justifying steps used in solving inequalities, using axioms of inequality and properties of order that are valid for the set of real numbers and its subsets; c) solving real-world problems involving inequalities
<u>Essential Understandings/ Big Ideas</u>
<ul style="list-style-type: none">• A solution to an inequality is the value or set of values that can be substituted to make the inequality true.• Real-world problems can be modeled and solved using linear inequalities.• Properties of inequality and order can be used to solve inequalities.• Set builder notation may be used to represent solution sets of inequalities.
<u>Key Essential Skills and Knowledge</u>
<ul style="list-style-type: none">• Solve multistep linear inequalities in one variable.• Justify steps used in solving inequalities, using axioms of inequality and properties of order that are valid for the set of real numbers.• Solve real-world problems involving inequalities.

Vocabulary

Inequality
Greater than, greater than or equal to, less than, less than or equal to
Properties of Inequality
Properties of Real Numbers
Solve
Justify

Assessment Evidence ~ What is evidence of mastery? What did the students master & what are they missing?

Assessment/ Evidence

Mulligan Checkpoint A.5

PowerSchool

Learning Plan ~ What are the strategies and activities you plan to use?

Learning Experiences/ Best Practice

Create Foldable or Graphic organizers for vocabulary

Create a matching activity where students match the inequality with the solution and number line that represents the solution

All Things Algebra → Multi-Step Equations & Inequalities → Activities

- Multi-Step Inequalities – Pumpkin Smash Bingo
- Multi-Step & Compound Inequalities Task Cards
- Multi-Step Inequalities Tic-Tac-Toe

Algebra Tiles

Technology Integrations

Gizmo
Khan Academy
Virtual Nerd
Discovery Streaming

Resources

Text

Virginia Glencoe, Algebra I, ©2012, Carter, et al,
McGraw-Hill School Education Group, page(s) 290 - 324

Coach book, Virginia edition, page(s) 112 - 127
Mulligan Math in Minutes A.5

All Things Algebra → Multi-Step Equations & Inequalities → Unit Bundle

- Notes, homework, quizzes (problems can be used for exit tickets)

Technology

- Gizmo
 - [Linear Inequalities in Two Variables – Activity A](#)
 - [Solving Linear Inequalities in One Variable](#)
- Virtual Nerd
 - [Solving Linear Inequalities](#)
- Discovery Streaming
 - [Solving Inequalities – Roller Coasters](#)
 - [Inequalities with Two Variables – Amusement Park Ticket](#)
- School Yourself
 - [Solving Inequalities](#)

Virginia Department of Education

[Greetings](#)
[Inequalities](#)

Cross Curricular Connection

[Cross Curricular Math Tips that Rock](#) Basic and easy ways to link any math topic to other subjects

History - An inequality can be written and solved to help make decisions in many parts of the history curriculum (example: write and solve an inequality to determine how much can be budgeted for each department and how much revenue can be collected).

Science – Students can research and write an inequality that represents their carbon footprint as it relates to the average suggested carbon footprint per person.

English – Students can write a paragraph explaining the steps to solve the inequality and use the properties of inequality to justify their steps.