# Unit 1b-Inequalities

Content Area: **Math**
Course(s): **Math 7 Pre-Algebra Honors**
Time Period: **Marking Period 1**
Length: **Wk 4-6 Go Math! Advanced 2 Module 2**
Status: **Published**

## Essential Questions

- How can you solve real-world and mathematical problems with numerical and algebraic inequalities?

## Big Ideas

- Use properties of operations to generate equivalent expressions.
- Use variables to represent quantities in a real-world or mathematical problem, and construct simple inequalities to solve problems by reasoning about the quantities.

## Cross Curricular Integration

### Integration area: Science

MS-PS1-3 Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.

MS-ESS3-1 Construct a scientific explanation based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

MS-ESS3-4 Construct an argument supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

Activity: Students will represent the depletion rate of natural resources in a table and graph. They will explore other natural resources and describe their uses, depletion rates, and impact on the environment. Stud

## CSDT Technology Connection

8.1.8.AP.5 Create procedures with parameters to organize code and make it easier to reuse.

## Enduring Understandings

Expressions and Equations

7.EE.4b 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. Solve word problems leading to inequalities of the form $px+q>r$ and $px+q<r$, 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.

## Mathematical Practices Focus

1. Make sense of problems and persevere in solving them. Lesson 2.1
2. Reason abstractly and quantitatively. Lesson 2.3
4. Model with mathematics. 2.3
5. Use appropriate tools strategically. 2.3
6. Attend to precision. 2.2