

6th Grade Unit 5 Information

1-Step Equations & Inequalities

CRCT Domain & Weight: Expressions & Equations 15.5% (2/3 of the 23%)

[FLIPBOOK for Unit 5](#)

[Overview of Unit 5](#)

[Prerequisites: Unit 5](#)

Unit Length: Approximately 24 days

[Checklist for Unit 5](#)

[Study Guide for Unit 5](#)

[Study Guide KEY for Unit 5](#)

Calculators are Allowed in This Unit.

Click on the links below for resources by Concept:

[Concept One: Solving Equations](#)

[Concept Two: Writing and Solving Word Problems](#)

[Concept Three: Write/Solve/Graph Inequalities](#)

[Concept Four: Dependent & Independent Variables](#)

TCSS 6th Grade Unit 5 ~ Equations & Inequalities

Concept One: Solving Equations

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p>MGSE6.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 substitution to determine whether a given number in a specified set makes an equation or inequality true.</p> <p>E.Q.What strategies can I use to help me understand and represent real situations using expressions and equations?</p>		<ul style="list-style-type: none"> • DO Eureka - True & False Number Sentences License • Station Activities Equations <ul style="list-style-type: none"> ○ Station 1 – Need to make a set of cards ○ Station 2 – uses Algebra Tiles ○ Station 3 – Visual equations ○ Station 4 – Use in Concept 2 • Glencoe CCSS Textbook(2013) p.509-520 • Problem Solving Practice Equations 	<p>CC.6.EE.5</p> <p>Back to Top</p>

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Concept Two: Writing & Solving Word Problems

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p>MGSE6.EE.6 Use variables to represent numbers and write expressions when solving a real-world or mathematical problem; understand that a variable can represent an unknown number, or, depending on the purpose at hand, any number in a specified set.</p> <p>E.Q. What strategies can I use to help me understand and represent real situations using expressions & equations?</p> <p>MGSE6.EE.7 Solve real-world and mathematical problems by writing and solving equations of the form $x+p=q$ and $pp=q$ for cases in which p, q and x are all nonnegative rational numbers.</p> <p>E.Q. How can I write and interpret equations?</p>	<p>Inverse Operation:</p> <p>Solution</p>	<p>Activator: ActiveInspire Equations Video, Notes, & Practice</p> <ul style="list-style-type: none"> • Optional Eureka – TAPE DIAGRAMS License • Inequalities Power Point • Spotlight Task Fruit Punch • Collaborative Cards • Frameworks 2 Part Task Set It Up • Station Activities Equations <ul style="list-style-type: none"> ○ Use Station 4 from Concept One • Writing Equations • Writing and Solving Equations Real World Problems • Glencoe CCSS Textbook(2013) p.521-574. • Problem Solving Practice <ul style="list-style-type: none"> ○ Addition ○ Subtraction ○ Multiplication ○ Division <p>Differentiation:</p> <ul style="list-style-type: none"> • Newmark 6 Learning Book Pages 96-105 • Writing Equations Teamwork Partner Practice 	<p>CC.6.EE.6</p> <p>CC.6.EE.7</p> <p>Back to Top</p>

TCSS 6th Grade Unit 5 ~ Equations & Inequalities

Concept Three: Write/Solve/Graph Inequalities

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p>MGSE6.EE.8 Write an inequality of the form $x > c$ or $x < c$ to represent a constraint or condition in a real-world or mathematical problem. Recognize that inequalities of the form $x > c$ or $x < c$ have infinitely many solutions; represent solutions of such inequalities on number line diagrams.</p> <p>E.Q. What strategies can I use to help me understand and represent real situations using inequalities?</p> <p>E.Q. How can I tell the difference between an expression, equation and an inequality?</p>	<p>inequality</p>	<p>Activator: Glencoe CCSS Textbook, Inquiry Lab pg. 615</p> <ul style="list-style-type: none"> • Eureka Math – Writing & Graphing License • Inequalities PowerPoint • When Is It Not Equal Task <p>Write & Solve</p> <ul style="list-style-type: none"> • Glencoe CCSS Textbook(2013) p.615-624 <p>Write, Solve, & Graph</p> <ul style="list-style-type: none"> • Glencoe CCSS Textbook(2013) p. 625-642 • Partner Practice Writing Inequalities • Inequalities Independent Practice <p><u>Differentiation:</u></p> <ul style="list-style-type: none"> • Newmark 6 Learning Book Page 96-105 • Reteaching Inequalities • Reteaching Writing and Graphing Inequalities 	<p style="text-align: center;">CC.6.EE.8</p> <p style="text-align: right;">Back to Top</p>

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Concept Four: Dependent & Independent Variables

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p>MGSE6.EE.9 Use variables to represent two quantities in a real-world problem that change in relationship to one another.</p> <p>a. Write an equation to express one quantity, the dependent variable, in terms of the other quantity, the independent variable.</p> <p>b. Analyze the relationship between the dependent and independent variables using graphs and tables, and relate these to the equation. <i>For example, in a problem involving motion at constant speed, list and graph ordered pairs of distances and times, and write the equation $d = 65t$ to represent the relationship between distance and time.</i></p> <p>E.Q. How does a change in one variable affect the other variable in a given situation?</p>	<p>Constant of proportionality:</p> <p>Direct Proportion (Direct Variation)</p> <p>Dependent variable</p> <p>Independent variable</p>	<ul style="list-style-type: none"> • DO Eureka Math Independent & Dependent Variables <i>License</i> • Analyzing Tables Task • Making Sense of Graphs • Chocolate Boxes • Real World Independent vs. Dependent Problems <p>Glencoe CCSS Textbook(2013)</p> <ul style="list-style-type: none"> • Tables p. 579 – 594 • Graphs p. 595 – 602 • Multiple Representations p. 603 – 614 <p><u>Differentiation:</u></p> <ul style="list-style-type: none"> • Support Multiple Representation of Functions • Extend Enchanted Rock • Three Levels: Newmark 6 Learning Book Pages 106-110 	<p><u>CC.6.EE.9</u></p> <p><u>Back to Top</u></p>