First Nine Weeks Instructional Map

GLE 0706.2.2 (NS.7.1, NS.7.1.d, NS.7.2.a, NS.7.2.c) Understand and work with the properties of and operations on the system of rational numbers.

| Knowledge and Skills | Checks for Understanding \& Guiding Question(s) | Resources \& Instructional Practices | Assessments |
| :---: | :---: | :---: | :---: |
| WEEKS 1-2 <br> SPI 0706.2.1 <br> Simplify numerical expressions involving rational numbers. (NS.7.1, NS.7.2) <br> What is it? Rational Number Review <br> Vocabulary Factors, exponent, base, powers, squared, cubed, evaluate, standard form, exponential form, numerical expression, order of operations, like fractions, unlike fractions | Guiding Question(s): <br> How do you simplify numerical expressions which contain rational numbers with different denominators? <br> Associative \& Commutative PowerPoint | Math Connects Course 2: Chapter 11-1A (Pg. 2528); 1-1B (Pg. 29-32) <br> Chapter 3 3-2A (Pg. 139-143);3-2B ( Pg. 144-145); 3-2C (Pg. 146 - 151); 3-2D (Pg. 152-156); 3-3A (Pg. 158-159); 3-3B (Pg. 160 -165); 3-3D (Pg. 168-173) <br> - 5 Minute Check <br> - Spiral Reviews (Pg.143, 151, 156, 165, 173) <br> - H.O.T. Problems (Pg. 143, 150, 156, 165, 173) <br> - TN Test Practice (Pg. 28, $32,143,151,156,165,173$ ) <br> - Problem Solving Investigation P. 167 <br> - Hands-on Activity Tools \& Resources Hands-on project p. 80, 88 <br> - Quick Review Math Handbook <br> - Foldables <br> - Chapter Resource Masters (Leveled Worksheets, Explore Worksheets, Reading/Writing Math) <br> Divide class into groups of two. Ask each student to write a step-by-step solution to solving a problem that involves adding mixed numbers. Have each student exchange work with partner. Partners study the work to determine if it is correct. If incorrect, label the errors and discuss. | - Are You Ready For The Chapter? <br> - Chapter 1 Pg. 24 ; Chapter 3 Pg. 126 <br> - Ticket Out the Door Pg. 143,165) <br> - Stop and Reflect Pg. 41, 156, 173 <br> - Mid Chapter Check Pg. 51, 157 <br> - Problem Solving Investigation Pg 167 <br> - Chapter Study Guide and Review Pg. 64-67, 190-193 <br> - Chapter Quizzes (Chapter Resource Masters) <br> - Practice Chapter Test Pg. 68, 194 <br> - Chapter Test (Chapter Resource Masters) <br> - Mastering TCAP Workbook <br> - Preparing for Standardized Test Pg. 195 <br> - Test Practice Pg. 122-123, 196-197 <br> - Self Check Quiz <br> TCAP Practice Item(s): <br> An average slice of American cheese is about $\frac{1}{8}$ inch thick. What is the height in simplest 8 <br> form of a package containing 20 slices? <br> a. $\frac{20}{8}$ b. $\frac{8}{20}$ <br> c. $2 \frac{1}{2}$ <br> d. 5 |

## Subject Pre-algebra Grade 7

| First Nine Weeks Instructional Map |  |  | DRAFT | Subject Pre-algebra Grade 7 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| GLE 0700.3.7 (EE.7.3, EE.7.4) Use mathematical models involving linear equations to analyze real-world phenomena. |  |  |  |  |  |
| Knowledge and Skills | Checks for Understanding \& Guiding Question(s) | Resources \& Instructional Practices |  | Assessments | Differentiated Instruction | Technology \& Additional Web-based Resources |
| WEEK 3 <br> SPI 0706.3.7 (EE.7.2, EE.7.4.a) Translate between verbal and symbolic representations of realworld phenomena involving linear equations. <br> Links: Internet 4 Classrooms <br> Vocabulary <br> function rule, function table, domain, range, independent variable, dependent variable, function notation, linear function | 0706.3.2 (EE.7.1, EE.7.2, EE.7.4.a) Represent and analyze mathematical situations using algebraic symbols. Words for Operations Writing Algebraic Equations Translating word sentences to math equations <br> 0706.3.11 (EE.7.2) Relate the features of a linear equation to a table and/or graph of the equation. Graphing Linear Equations and Functions <br> Guiding Question(s) How are verbal phrases written as mathematical expressions? | Glencoe Tennessee Math Connects Course 2: Chapter 7 Lessons: 7-1A (Pg. 377), 7-1B (Pg. 378 -384), 7-1C (Pg. 385-389), 7-1D (Pg. 390) <br> Chapter 4 Lessons: 4-1B (Pg. 204-205), 1D (pp. 208-213); 4-2A (Pg. 214), 4-2C (Pg. 220) Impact Math Unit C, Inv. 2 pp. 43-46 <br> - 5 Minute Check <br> - H.O.T. Problems (Pg. 382, 389) <br> - Test Practice (Pg. 382,389) <br> - Hands-on Activity Tools \& Resources: Using Virtual Manipulatives p. 100 <br> - Quick Review Math Handbook <br> - Foldables <br> - Chapter Resource Masters (Leveled Worksheets, Explore Worksheets, Reading/Writing Math) | - Are You Ready For The Chapter? Chapter 7 Pg. 376 and Chapter 4 Pg. 200 <br> - Ticket Out the Door Pg. 389 <br> - Stop and Reflect Pg. 390 <br> - Mid Chapter Check Pg. 401 <br> - Chapter Study Guide and Review Pg. 418-419 <br> - Chapter Quizzes (Chapter Resource Masters) <br> - Practice Chapter Test Pg. 422 <br> - Chapter Test (Chapter Resource Masters) <br> - Mastering TCAP Workbook <br> - Test Practice Pg. 424-425 <br> - Self Check Quiz | Intervention: <br> - Stanford Math: $90 \mathrm{~min} / \mathrm{wk}$ <br> - Destination Math <br> - Are You Ready For The Chapter? Chapter 7 Pg. 376 and Chapter 4 Pg. 200 <br> - Response To Intervention Pg. 376a <br> - Differentiated Instruction Options Pg. 377c (Teacher's Ed) <br> - Reteach Master (Chapter Resource Masters) <br> Words for Operations <br> Enrichment: <br> - Stanford Math <br> - Destination Math <br> - Are You Ready For The Chapter? Chapter 7 Pg. 376 and Chapter 4 Pg. 200 <br> - Enrichment Masters (Chapter Resource Masters) <br> - Differentiated Instruction Options Pg. 377c (Teacher's Ed) <br> - Chapter Projects <br> Have pairs of students write an algebraic expression. Put these in a hat. Each pair draws out one algebraic expression and write a real-life situation, which corresponds to the algebraic expression they drew. | - Teacher's Edition CD Rom <br> - Graphing Calculators <br> - Destination Math <br> - Publisher's Website: connectED.mcgrawhill.com <br> - NCTM Website: http://illuminations.nctm. org <br> - www.internet4classroo ms.com <br> - www.tnelc.org <br> - www.education.ti.com <br> - Interactive Manipulatives: http://nlvm.usu.edul <br> - STEM Resources: http://www.stemresourc es.com/ <br> - Informational Math Site (PowerPoints/Games <br> - http://jcschools.net/index.htm\| <br> - www.softschools.com <br> - Examview Pro <br> - www.brightstorm.com <br> - www.discoveryeducatio n.com <br> - http://exchange. smarttech.com |

## Subject Pre-algebra Grade 7

GLE 0706.3.1 (EE.7.4) Recognize and generate equivalent forms for simple algebraic expressions.


## Assessments

- Ticket Out the Door Pg. 49
- Stop and Reflect Pg. 48
- Mid Chapter Check Pg. 51
- Problem Solving Investigation Pg 100-101
- Chapter Study Guide and Review Pg. 66
- Chapter Quiz - Chapter Resource Masters
- Practice Chapter Test Pg. 68
- Chapter Test - Chapter Resource Masters
- Mastering TCAP Workbook
- Preparing for Standardized Tests Pg. 69
- Self Check Quiz

TCAP Practice Item(s):
Evaluate $f+(2 f-j)^{2}$ when $f=5$ and $\mathrm{j}=$
$\begin{array}{ll}\text { a. }-1 & \text { b. } 14 \\ \text { c. } 41 & \text { d. } 89\end{array}$
Which equation best describes the
relationship between $x$ and $y$ shown in the
table below?


A $y=x+1$
B $y=2 x$
C $y=2 x+1$
D $y=x^{2}+1 \longleftarrow$

Differentiated Instruction

Intervention:

- Stanford Math: 90 min./wk
- Destination Math
- Response to Intervention Reteach Worksheet -Chapter Resource Masters

Discuss how to choose a letter to represent a variable quantity and that using the first letter of a word can help them remember what the variable stands for. You may also have students write definitions of the new vocabulary terms from the lesson.

## Enrichment:

- Stanford Math
- Enrichment Masters - Chapter Resource Masters
- Destination Math
- Differentiated Instruction Options Pg. 48 (Teacher's Edition)

Challenge students to produce origina complex problems and solve. Allow them to share them with classmates and explain how to evaluate them.

Technology \& Additional
Web-based Resources

- Teacher's Edition CD Rom
- Graphing Calculators
- Destination Math
- Publisher's Website: connectED.mcgraw-hill.com
- NCTM Website:
http://illuminations.nctm.org
- www.internet4classrooms.c om
- www.tnelc.org
- www.education.ti.com
- Interactive Manipulatives:
http://nlvm.usu.edu/
- STEM Resources: http://www.stemresources.c om/
- Informational Math Site (PowerPoints/Games
http://jc-schools.net/index.html
- www.softschools.com
- Examview Pro
- www.brightstorm.c om
- http://exchange.sm arttech.com
- www.discoveryeduc ation.com

GLE 0706.2.2 (NS.7.1, NS.7.1.d, NS.7.2.a, NS.7.2.c) Understand and work with the properties of and operations on the system of rational numbers.
GLE 0706.2.5 (NS.7.1) Understand and work with squares, cubes, square roots and cube roots.

| Knowledge and Skills | Checks for Understanding \& Guiding Question(s) | Resources \& Instructional Practices | Assessments |
| :---: | :---: | :---: | :---: |
| WEEK 5 | 0706.2.1 Understand that the set of | Glencoe Tennessee Math Connects | - Ticket Out the Door - Pg. 60 |
| SPI 0706.2.2 Compare rational numbers using appropriate inequality symbols. (NS.7.1) | rational numbers includes any number that can be written as a ratio of two | Course 2: Chapter 1 Lessons: 3A (Pg. 52), $\text { 3B (Pg. } 53-56), 3 C \text { (Pg. } 57-61 \text { ) }$ | - Are You Ready For The Chapter? Pg. 126 |
|  | integers in which the denominator is | Chapter 3 Lessons: 1A (Pg. 127); 1C ( Pg. | - Stop and Reflect - Pg. 61, 137 |
|  | not zero. (NS.7.1) | 133-138) | - Mid Chapter Check - Pg. 157 |
|  | Representing Rational Numbers Lesson Plan Rational and Irrational Numbers Game | Impact Math Unit B, Inv. 2 pp. 34-37 | - Chap. Study Guide and Review Pg. 67191 |
|  | 0706.2.2 Develop and analyze | 5 Minute Check <br> H.O.T. Problems (Pg. 56, 60, 138) | - Chapter Quiz -Chapter Resource Master |
| Vocabulary <br> Rational numbers, common denominator, least common denominator (LCD), square roots, cube root, greater than, less than | algorithms and compute efficiently with integers and rational numbers. NS.7.1) | Test Practice Pg. 56, 60, 138 <br> Hands on Activity Tools (See TE) | - Practice Chapter Test - Pg. 68, 194 |
|  | 0706.2.3 Recognize that rational | Quick Review Math Handbook | - Chapter Test -Ch. Resource |
|  | associative laws of addition and multiplication and the distributive law. (NS.7.1) | Chapter Resource Masters (Leveled Worksheets, Explore Worksheets, Reading/Writing Math) | - Mastering TCAP Workbook <br> - Self Check Quiz <br> - Test Practice - Pg. 71 |
|  | 0706.2.9 Efficiently compare and order rational numbers and roots of perfect | Class Activity: Use index cards with rational numbers greater than or equal to zero. | TCAP Practice Item(s): 1. Which value of $X$ makes this |
|  | Square \& Cubed Roots PowerPoint | Students will draw two or more cards at random and compare numbers using $=$, and $>$. | inequality true? $X \geq 1.6$ <br> a. $8 / 5$ <br> b. $11 / 7$ <br> b. $13 / 9$ <br> c. $17 / 11$ |
|  | 0706.2.11 Estimate square/cube roots and use calculators to find approximations. <br> Estimating Square Roots Slideshow | Class Activity: Students will record numbers as instructed on index cards. The teacher will call on groups of two to five students. Students will arrange themselves in | 2. The fraction $\frac{5}{6}$ is found between which pair of fractions on a number line? |
|  | Guiding Question(s): <br> How can the number line be used to compare rational numbers? | Students will arrange themselves in ascending or descending order and display their cards for the class to see. | A. $\frac{1}{4}$ and $\frac{1}{8}$ <br> B. $\frac{1}{3}$ and $\frac{4}{9}$ |

Differentiated Instruction

## Intervention:

- Stanford Math: 90 min./wk
- Destination Math
- Response to Intervention Pg. 126A (Teacher's Edition)
- Are You Ready For The Chapter? Chapter 3 Pg. 126
- Reteach Master - Chapter Resource Masters
- Differentiated Instruction Options 127c (Teacher's Ed)

Enrichment:

- Stanford Math
- Enrichment Master - Chapter Resource Masters
- Destination Math
- Differentiated Instruction Options 127c (Teacher's Ed)
- Are You Ready For The Chapter Apply/Enrichment Section
- Chapter Project

Have students describe an effective strategy for comparing and ordering rational numbers

Technology \& Additional Web-based

- Teacher's Edition CD Rom
- Graphing Calculators
- Destination Math
- Publisher's Website: connectED.mcgraw-hill.com
- NCTM Website: http://illuminations.nctm.org
- www.internet4classrooms.com
- www.tnelc.org
- www.education.ti.com
- Interactive Manipulatives:
http://nlvm.usu.edul
- STEM Resources:
http://www.stemresources.com/
- Informational Math Site (PowerPoints/Games http://ic-schools.net/index.html
- www.softschools.com
- Examview Pro
- www.brightstorm.com
- http://exchange.smartt ech.com
- www.discoveryeducatio n.com

GLE 0706.2.1 (NS.7.1) Extend understandings of addition, subtraction, multiplication and division to integers,

| Knowledge and Skills | Checks for Understanding \& Guiding Question(s) | Resources \& Instructional Practices | Assessments | Differentiated Instruction | Technology \& Additional Webbased Resources |
| :---: | :---: | :---: | :---: | :---: | :---: |
| WEEK 6 <br> SPI 0706.2.5 Solve contextual problems that involve operations with integers. (NS.7.1, NS.7.2, NS.7.2.c, NS.7.2.d) <br> Integers, Rational \& Irrational Numbers <br> Integer and Number line Activity <br> Integer Operations on TI-73 <br> Vocabulary Zero pair, opposites, additive inverse | 0706.2.2 Develop and analyze algorithms and compute efficiently with integers and rational numbers. (NS.7.1) <br> Math Algorithms <br> 0706.2.4 Understand that a and -a are additive inverses and are located the same distance from zero on the number line; relate distance from zero to absolute value. (NS.7.7.1.a, NS.7.1.b) <br> Additive Inverse and Absolute Value Video Additive Inverse Absolute Value Slideshow <br> 0706.2.5 Understand that $-(-\mathrm{a})=\mathrm{a}$ for any number a. (NS.7.7.1.a) Algebra Intro for Kids <br> 0706.2.6 Use the number line to demonstrate addition and subtraction with integers. (NS.7.1, NS.7.1.c) <br> Guiding Question(s): <br> When are negative numbers used and why are they important? | Glencoe Tennessee Math Connects Course 2: <br> Chapter 2 Lessons: 2A (Pg. 86 87); 2B (Pg. 88 -92); 2C (Pg. 93 94); 2D (Pg. $95-98$ ); 3B (Pg. 102 103); 3C (Pg. 104 - 108); 3D (Pg. 109-113) <br> - 5 Minute Check <br> - Spiral Reviews (Pg. 92, 98, 108) <br> - H.O.T. Problems (Pg. 92, 98, 108, 113) <br> - Test Practice (Pg. 92, 98, 108, 113) <br> - Hands on Activity Tools Multiplying Integers using Manipulatives p. 85 <br> - Quick Review Math Handbook <br> - Foldables <br> - Chapter Resource Masters (Leveled Worksheets, Explore Worksheets, Reading/Writing Math) | - Are You Ready For The Chapter? Pg 74 <br> - Stop and Reflect Pg. 98 and Pg. 113 <br> - Mid Chapter Check Pg. 99 <br> - Problem Solving Investigation Pg 100 101 <br> - Chapter Study Guide and Review Pg. 116-119 <br> - Chapter Quizzes (Chapter Resource Masters) <br> - Practice Chapter Test Pg. 120 <br> - Chapter Test (Chapter Resource Masters) <br> - Preparing for Standardized Test Pg. 121 <br> - Test Practice Pg. 122-123 <br> - Mastering TCAP Workbook <br> - Self Check Quiz <br> TCAP Practice Item(s): <br> The temperature in Chicago was $-3^{\circ} \mathrm{F}$ at 8 a.m. The temperature increased $5^{\circ} \mathrm{F}$ by noon. The temperature then decreased $7^{\circ} \mathrm{F}$ by 4 p.m. What was the temperature in Chicago at 4 p.m.? <br> A. $-15^{\circ} \mathrm{F}$ <br> B. $-9{ }^{\circ} \mathrm{F}$ <br> C-5 ${ }^{\circ} \mathrm{F}$ <br> D. $-1^{\circ} \mathrm{F}$ <br> During a golf match, Marcus shot 4 under par while his opponent Briana shot 2 over par? By how many shots was Marcus's score better than Briana's? <br> A. 2 <br> C. 6 <br> B. 4 <br> D. 8 | Intervention: <br> - Stanford Math: 90 min./wk <br> - Destination Math <br> - Response to Intervention Pg. 74A (TE) <br> - Are You Ready For The Chapter? Pg. 74 <br> - Enrichment Masters -(Chapter Resource Masters) <br> - Differentiated Instruction Options <br> Pg. 86c - 86d (Teacher's Edition) <br> Pg. 100c - 100d (Teacher's Ed) <br> Use place value blocks and charts to model all four operations. Have students construct word problems that fit the problems modeled using the four operations and solve these problems. <br> For review, model integer operations using two-color counters. Also, model integer addition and subtraction using number lines. <br> Enrichment: <br> - Impact Math Unit A Inv. 2 pp. 7-9 <br> - Stanford Mathematics <br> - Are You Ready For the Chapter? Apply Section/Enrichment( Masters Chapter Resource Masters) <br> - Destination Math <br> - Differentiated Instruction Options Pg. 86c - 86d (Teacher's Edition) Pg. 100c - 100d (Teacher's Ed) <br> - Chapter Project <br> Have students describe situations in which integer addition/subtraction are used. Ask them to explain how to find the sum or difference. | - Teacher's Edition CD Rom <br> - Graphing Calculators <br> - Destination Math <br> - Publisher's Website: connectED.mcgraw-hill.com <br> - NCTM Website: http://illuminations.nctm.org <br> - www.internet4classrooms.co m <br> - www.tnelc.org <br> - www.education.ti.com <br> - Interactive Manipulatives: http://nlvm.usu.edu/ <br> - STEM Resources: http://www.stemresources.co m/ <br> - Informational Math Site (PowerPoints/Games http://jc- <br> schools.net/index.html <br> - www.softschools.com <br> - Examview Pro <br> - www.brightstorm.co m <br> - http://exchange.sm arttech.com <br> - www.discoveryeduca tion.com |

## Subject Pre-algebra

Grade 7

## Common Core Focus Standards

The remainder of this quarter will address the Ratio and Proportion and Expressions and Equations CCSS focus standards for seventh grade mathematics. In preparation for the CRA assessments tasks and lessons have been included in this nine week period and the second nine weeks period to prepare students.

## First Nine Weeks Instructional Map

## Subject Pre-algebra <br> Grade 7

## Weeks 7 - 9

## Focus Standard 1: Analyze proportional relationships and use them to solve real-world and mathematical problems.

7.RP. 1 Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units. For example, if a person walks $1 / 2$ mile in each 1/4 hour, compute the unit rate as the complex fraction 1/2/1/4 miles per hour, equivalently 2 miles per hour.

Common Core Sample Task: Buses Task: Distance-time graph describing a bus journey Buses Task: Answers
7.RP. 2 Recognize and represent proportional relationships between quantities
 is a straight line through the origin.
b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
c. Represent proportional relationships by equations. For example, if total cost tis proportional to the number ( $n$ ) of items purchased at a constant price ( $p$ ), the relationship between the total cost and the number of items can be expressed as $t=p n$.
d. Explain what a point $(x, y)$ on the graph of a proportional relationship means in terms of the situation, with special attention to the points $(0,0)$ and $(1, r)$ where $r$ is the unit rate.

## Common Core Sample Lessons:

Estimating: Counting Trees http://www.map.mathshell.org/materials/lessons.php?taskid=422\&subpage=problem
Checking Proportionality:
http://www.purplemath.com/modules/ratio3.htm
7RP. 3 Use proportional relationships to solve multistep ratio and percent problems. Examples: simple interest, tax, markups and markdowns, gratuities and commissions, fees, percent increase and decrease, percent error.

## Common Core Sample Lesson:

Increasing and Decreasing Quantities by a Percent
http://www.map.mathshell.org/materials/lessons.php?taskid=210\&subpage=concept

## Subject Pre-algebra <br> Grade 7

## Focus Standard 2: Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

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. For example: If a woman making $\$ 25$ an hour gets a $10 \%$ raise, she will make an additional $1 / 10$ of her salary an hour, or $\$ 2.50$, for a new salary of $\$ 27.50$. If you want to place a towel bar 9 3/4 inches long in the center of a door that is $271 / 2$ inches wide, you will need to place the bar about 9 inches from each edge; this estimate can be used as a check on the exact computation.

Common Core Sample Task: Discounted Books
http://www.illustrativemathematics.org/illustrations/478

## Additional Lessons:

Simplifying Algebraic Expressions Using Properties Students will simplify algebraic expressions using the identity properties of addition and multiplication, the commutative and associative properties of addition and multiplication, and the distributive property of multiplication over addition.
Simplifying Numerical Expressions Using the Order of Operations Students will simplify numerical expressions using the correct order of operations.
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 $p x+q=r$ and $p(x+q)=r$, where $p, q$, and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of then operations used in each approach. For example, the perimeter of a rectangle is 54 cm. Its length is 6 cm . What is its width?
b. Solve word problems leading to inequalities of the form $p x+q>r$ or $p x+q<r$, 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.

## Common Core Sample Lessons:

- Steps to Solving Equations:
http://www.map.mathshell.org/materials/lessons.php?taskid=431\&subpage=concept
- Equations for Model Real World Problems:
http://www.uen.org/Lessonplan/preview.cgi?LPid=23388


## First Nine Weeks Instructional Map

## Subject Pre-algebra

Grade 7

- Expressions, Equations, and Inequalities:
http://mdk12.org/scripts/vsc/generate_objective_pdf.pl?ca=Mathematics\&gr=7\&obj=1B1b
- Creating and Solving Equations:
http://www.mathplayground.com/MTV/mathtv15.html
Additional Tasks for further practice
Fencing Task A12: http://www.map.mathshell.org/materials/tasks.php?taskid=369\&subpage=apprentice
Taxi Cabs (p.11-12)
http://www.map.mathshell.org/materials/tests/ms_1_test.pdf
Expressions and Equations (several short tasks)
http://www.map.mathshell.org/materials/tasks.php?taskid=399\&subpage=novice

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## Subject Pre-algebra Grade 7

GLE 0706.3.3 Understand the concept of function as a rule that assigns to a given input one and only one number (the output),

| Knowledge and Skills | Checks for Understanding \& Guiding Question(s) | Resources \& Instructional Practices | Assessments | Differentiated Instruction | Technology \& Additional Webbased Resources |
| :---: | :---: | :---: | :---: | :---: | :---: |
| WEEK 9 <br> SPI 0706.3.6 (EE.7.4.a) Solve linear equations with rational coefficients symbolically or graphically. <br> Equation Game Interactive <br> Solving Two-Step Equations Lesson <br> Vocabulary <br> Equation, equivalent equations, inequality, coefficient, formula, multiplicative inverse, reciprocal, two-step equation, solution set | Guiding Question(s) <br> How do inverse operations help with solving linear equations? | Glencoe Tennessee Math Connects Course 2: Chapter 4 Lessons: 1A (Pg. 202 -203); 1B (Pg. 204-205); 1C (Pg. 206 - 207); 1D (Pg. 208 211); 2A (Pg. 214); 2B (Pg. 215-219); 2C (Pg. 220); 2D (Pg. 221-226); 3A (Pg. 228-229); 3B (Pg. 230-234) <br> Impact Math Unit J, Inv. 4 pp. 164-166 4C (Pg.249-253) <br> - 5 Minute Check <br> - Spiral Reviews (Pg. 226, 234 all except \#39; 239, 248 \#40-43) <br> - H.O.T. Problems (Pg. 213, 219, 225, 234, 248, 253) <br> - Test Practice (Pg. 213, 219, 226, 234, 239, 248 (\#35-37), 253) <br> - Hands on Activity Tools: Hands-on Project p. 90 \& Using manipulative to solve two-step equations p. 91 <br> - Quick Review Math Handbook <br> - Foldables <br> - Chapter Resource Masters (Leveled Worksheets, Explore Worksheets, Reading/Writing Math) | - Are You Ready For The Chapter? Pg. 200 <br> - Ticket Out the Door Pg. 219, 239 <br> - Stop and Reflect Pg. 213, 226, 239 <br> - Mid Chapter Check 227 <br> - Problem Solving Investigation Pg 202-203 <br> - Chapter Study Guide and Review Pg. 254-257 <br> - Chapter Quiz - Chapter Resource Masters <br> - Practice Chapter Test Pg. 258 <br> - Chapter Test - Chapter Resource Masters <br> - Mastering TCAP Workbook <br> - Test Practice <br> - Preparing for Standardized Tests Pg. 259 <br> Self Check Quiz <br> TCAP Practice Item(s): <br> What value of $p$ makes this equation true? $\frac{4}{5} p-8=20$ <br> A. $93 / 5$ <br> B. $222 / 5$ <br> C. 33 <br> D. 35 | Intervention: <br> - Stanford Math: 90 min/wk <br> - Destination Math <br> - Are You Ready For The Chapter? Pg. 200 <br> - Response To Intervention Pg. 200A <br> - Differentiated Instruction Options Pg. 201c, 214c, 228c (Teacher's Ed) <br> - Reteach Master (Chapter Resource Masters) <br> Enrichment: <br> - Stanford Math <br> - Destination Math <br> - Are You Ready For The Chapter? Pg. 200 <br> - Enrichment Masters (Chapter Resource Masters) <br> - Differentiated Instruction Options Pg. 201c, 214c, 228c (Teacher's Ed) <br> - Chapter Projects <br> Lesson: Solving a Linear Equation -Graphically Allow students to work through the problem | - Teacher's Edition CD Rom <br> - Graphing Calculators <br> - Destination Math <br> - Publisher's Website: connectED.mcgraw-hill.com <br> - NCTM Website: http://illuminations.nctm.org <br> - www.internet4classrooms.com <br> - www.tnelc.org <br> - www.education.ti.com <br> - Interactive Manipulatives: http://nlvm.usu.edu/ <br> - STEM Resources: http://www.stemresources.com/ <br> - Informational Math Site (PowerPoints/Games <br> - http://jc-schools.net/index.html <br> - www.softschools.com <br> - Examview Pro <br> - www.brightstorm.com <br> - www.discoveryeducation.com <br> - http://exchange.smartt ech.com |

## Subject Pre-algebra

 Grade 7
## Common Core State Standards Crosswalk Correlations

 addition and subtraction on a horizontal or vertical number line diagram.

NS.7.1.a Describe situations in which opposite quantities combine to make 0 . For example, a hydrogen atom has 0 charge because its two constituents are oppositely charged.
 numbers by describing real-world contexts.NS.7.2.c Apply properties of operations as strategies to multiply and divide rational numbers.

NS.7.1.d Apply properties of operations as strategies to add and subtract rational numbers.
 numbers.
 multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
 rational numbers extend the rules for manipulating fractions to complex fractions.)



 computation.
 reasoning about the quantities.
 approximate relative frequency given the probability. For example, when rolling a number cube 600 times, predict that a 3 or 6 would be rolled roughly 200 times, but probably not exactly 200 times.
 possible sources of the discrepancy.

RP.7.2.a Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.

