

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



Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 7 days

<i>Desired Results ~ What will students be learning?</i>
<u>Standards of Learning/ Standards</u>
6.3 a-c The student will: <ul style="list-style-type: none">a) identify and represent integers;b) order and compare integers; andc) identify and describe absolute value of integers.
<u>Essential Understandings/ Big Ideas</u>
<ul style="list-style-type: none">• What role do negative integers play in practical situations? <i>Some examples of the use of negative integers are found in temperature (below 0), finance (owing money), below sea level.</i>• How does the absolute value of an integer compare to the absolute value of its opposite? <i>They are the same because an integer and its opposite are the same distance from zero on a number line.</i>• Integers are the set of whole numbers, their opposites, and zero.• Positive integers are greater than zero and negative integers are less than zero.• Zero is an integer that is neither positive nor negative.• A negative integer is always less than a positive integer.

- When comparing two negative integers, the negative integer that is closer to zero is greater.
- An integer and its opposite are the same distance from zero on a number line. **For example, the opposite of 3 is -3.**
- The absolute value of a number is the distance of a number from zero on the number line regardless of direction.
Absolute value is represented as $|-6| = 6$.
- On a conventional number line, a smaller number is always located to the left of a larger number
(e.g., -7 lies to the left of -3 , thus $-7 < -3$; 5 lies to the left of 8 thus 5 is less than 8).

Key Essential Skills and Knowledge

- Identify an integer represented by a point on a number line.
- Represent integers on a number line.
- Order and compare integers using a number line.
- Compare integers, using mathematical symbols ($<$, $>$, $=$).
- Identify and describe the absolute value of an integer.

Vocabulary

<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>	
Absolute Value	Integers	Identify	Describe
Whole Numbers	Distance	Represent	Compare
Negative Numbers	Positive Numbers	Symbols	Ascending
Difference	Number line	Less Than ($<$)	Descending
Graph	Opposite	Greater Than ($>$)	Vertical
Rational Number	Absolute Value Bars ($ $)	Equal To ($=$)	Horizontal

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

Assessment/ Evidence

Interactive Achievement
Compass Learning
6.3a - MA6512
6.3b - MA6522
6.3c - QZM6081
Formative Assessment - Whip Around

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

Learning Experiences/ Best Practice

- Create a foldable on Absolute Value and Opposites
- Interactive Notebook – What is an Integer, Frayer Vocabulary
- Have students show the distance a number is from zero by having them “walk it out” on a number line. Illustrate how opposites are the same distance from zero.
- Absolute Value Bingo
- Absolute value Matching Cards
- Integer War –played like “I Declare War” largest number wins.
- Absolute Value is always positive unless there is a negative symbol on the outside of the absolute symbol.
- [Absolute Value - Idea](#)

Text

Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill

page(s) 408 – 412 and pages 765 – 768 (additional lessons if needed)

Extra Practice page –EP19 Lesson 7-3 part a & b

Coach book, 6th Grade Virginia Gold Edition

6.3a - page(s) 33 – 39

6.3b – page(s) 40 – 44

6.3c – page(s) 45 – 50

Mulligan Math in Minutes 6.3

Technology Integrations

Gizmo – [Integers, Opposites,+ and Absolute Value](#) – interactive instructional resource

Brain Pop – [Absolute Value](#) - - interactive skill practice

VDOE – [Teaching Integers](#) – Instructional Video (look at OBJ03)

Smart Exchange - interactive skill practice

[Introducing Integers](#) [SMART Notebook lesson]

[Introduction to Integers](#) [SMART Notebook lesson]

[Understanding Integers](#) [SMART Notebook lesson]

[Supplementary Video on Absolute Value](#)

Resources

Virginia Department of Education

[Working With Integers](#)

[Ground Zero](#)

Other Sites

Study Jams - [Integers](#)

Interactivesites weebly – [Number lines](#)

Cross Curricular Connection

Reading – [Absolute Location](#) – Students will read about how absolute value is used in providing the distance between locations.

Science – Above and Below Sea Level Charting of land masses.

Writing – Journal- Compare and Contrast negative and positive numbers.

Materials

Manipulatives

Number lines

Tape

Markers

Playing cards

Centimeter Cubes

Absolute Value Bingo Cards

Technology Resources

LCD Projector

Speakers

Computer w/Internet Connection

Student Supplies

Whiteboards/Markers

Frayed Model

Student Notes

Laminated Absolute Matching Cards

Laminated Ground Zero Cards

Guided Notes

Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 5 days

Desired Results ~ What will students be learning?

Standards of Learning/ Standards

6.11

The student will

- a) identify the coordinates of a point in a coordinate plane; and
- b) graph ordered pairs in a coordinate plane.

Essential Understandings/ Big Ideas

- Can any given point be represented by more than one ordered pair?
The coordinates of a point define its unique location in a coordinate plane. Any given point is defined by only one ordered pair.
- In naming a point in the plane, does the order of the two coordinates matter?
Yes. The first coordinate tells the location of the point to the left or right of the y-axis and the second point tells the location of the point above or below the x-axis. Point (0, 0) is at the origin.
- In a coordinate plane, the coordinates of a point are typically represented by the ordered pair (x, y) , where x is the first coordinate and y is the second coordinate. However, any letters may be used to label the axes and the corresponding ordered pairs.
- The quadrants of a coordinate plane are the four regions created by the two intersecting perpendicular number lines. Quadrants are named in counterclockwise order. The signs on the ordered pairs for quadrant I are $(+,+)$; for quadrant II, $(-,+)$; for quadrant III, $(-, -)$; and for quadrant IV, $(+,-)$.
- In a coordinate plane, the origin is the point at the intersection of the x-axis and y-axis; the coordinates of this point are $(0,0)$.
- For all points on the x-axis, the y-coordinate is 0. For all points on the y-axis, the x-coordinate is 0.
- The coordinates may be used to name the point. (e.g., the point $(2,7)$). It is not necessary to say “the point whose coordinates are $(2,7)$ ”.

Key Essential Skills and Knowledge

The student will use problem solving, mathematical communication, mathematical reasoning, connections, and representations to

- Identify and label the axes of a coordinate plane.
- Identify and label the quadrants of a coordinate plane.
- Identify the quadrant or the axis on which a point is positioned by examining the coordinates (ordered pair) of the point.
- Graph ordered pairs in the four quadrants and on the axes of a coordinate plane.
- Identify ordered pairs represented by points in the four quadrants and on the axes of the coordinate plane.
- Relate the coordinate of a point to the distance from each axis and relate the coordinates of a single point to another point on the same horizontal or vertical line.

Vocabulary

<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>	
Coordinate plane	Ordered pair	Roman numerals (I, II, III, IV)	Horizontal
Origin	Plane	Counter clockwise	Vertical
Quadrants	<i>X-axis</i>	Clockwise	Parallel
<i>X-coordinate</i>	<i>Y-axis</i>	Perpendicular	Intersection
<i>Y-coordinate</i>	Graph	Point	
Number line	Plot		
Positive Numbers	Negative Numbers		
Coordinates			

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

Assessment/ Evidence

Interactive Achievement
 Compass Learning
 Formative Assessment - Response Cards

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

Learning Experiences/ Best Practice

- Dry Erase Board Coordinate plane plotting of ordered pairs and labeling of quadrants.
- Human Coordinate Plane – Students plot themselves on a Coordinate Plane made of tape on the floor
- Placemat math – Give each group a “placemat” divided in four sections. In each section, write a quadrant. Direct students to write an ordered pair that would be found in that quadrant. At the end of 15 seconds, turn the placemat around so that each student has a different quadrant to work on.
- Battleship (Modified for 1 or all 4 quadrants)
- Find the missing point
- Block Letter plotting - The students draw their block letter on the grid paper. They will make at least 6 points on the letter and correctly identify the ordered pair for each point

Text

Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill

page(s) 413 – 417 and pages 750 and 769-770

(additional lessons if needed)

Extra Practice page –EP19 Lesson 7-3 part c

Coach book, 6th Grade Virginia Gold Edition

6.11a-b – page(s) 156 – 161

Mulligan Math in Minutes 6.11

Technology Integrations

Gizmo – [Coordinates](#) - interactive instructional resource

Flocabulary – [The Coordinate Plane](#) - instructional video

Smart Exchange - interactive skill practice

[Coordinate Plane \[SMART Notebook lesson\]](#)

Brain Pop – [Coordinate Plane](#) – interactive skill practice

Resources

Virginia Department of Education

[What’s the Point?](#)

6.11 [Coordinate Plane](#) – pages 49-53

Other Sites

http://www.mathplayground.com/locate_aliases.html

<http://www.math-play.com/Coordinate-Plane-Jeopardy/Coordinate-Plane-Jeopardy.html>

<http://studyjams.scholastic.com/studyjams/jams/math/algebra/ordered-pairs.htm>

<http://www.math-play.com/Algebra-Math-Games.html>

http://hotmath.com/hotmath_help/games/ctf/ctf_hotmath.swf

Interactivesites weebly – [Coordinates](#)

You Tube – The Space Odyssey

You Tube - X before Y

Cross Curricular Connection

History – Using maps and grids to find locations

Science – Report on the concept of GPS and how it is used in everyday life.

Geography – Mapping latitude and longitude on maps.

Materials

Manipulatives

Geoboards

Rubber bands

Masking Tape

Markers

Technology Resources

LCD Projector

Speakers

Computer w/Internet Connection

Student Supplies

Grid Paper

Rulers

Dry Erase Boards / Markers

Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 3 days

<i>Desired Results ~ What will students be learning?</i>	
<u>Standards of Learning/ Standards</u>	
6.5	The student will investigate and describe concepts of positive exponents and perfect squares.
<u>Essential Understandings/ Big Ideas</u>	
<ul style="list-style-type: none">• What does exponential form represent? <i>Exponential form is a short way to write repeated multiplication of a common factor such as $5 \times 5 \times 5 \times 5 = 5^4$.</i>• What is the relationship between perfect squares and a geometric square? <i>A perfect square is the area of a geometric square whose side length is a whole number.</i>• Recognize and describe patterns with exponents that are natural numbers, by using a calculator.• Recognize and describe patterns of perfect squares not to exceed 20^2, by using grid paper, square tiles, tables, and calculators.• Recognize powers of ten by examining patterns in a place value chart: $10^4 = 10,000$, $10^3 = 1000$, $10^2 = 100$, $10^1 = 10$, $10^0 = 1$.	
<u>Key Essential Skills and Knowledge</u>	
<ul style="list-style-type: none">• In exponential notation, the base is the number that is multiplied, and the exponent represents the number of times the base is used as a factor. In 8^3, 8 is the base and 3 is the exponent.• A power of a number represents repeated multiplication of the number by itself (e.g., $8^3 = 8 \times 8 \times 8$ and is read “8 to the third power”).• Any real number other than zero raised to the zero power is 1. Zero to the zero power (0) is undefined.• Perfect squares are the numbers that result from multiplying any whole number by itself (e.g., $36 = 6 \times 6 = 6^2$).• Perfect squares can be represented geometrically as the areas of squares the length of whose sides are whole numbers (e.g., 1×1, 2×2, or 3×3). This can be modeled with grid paper, tiles, geoboards and virtual manipulatives.	

<u>Vocabulary</u>		
<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>
Exponent	Perfect Square	Patterns
Product	Power	Representations
Base	Factor	Investigate
Undefined	Area	
Square	Exponential Form	
Natural Number	Powers of Ten	
<i>Assessment Evidence ~ What is evidence of mastery? What did the students master & what are they missing?</i>		
<u>Assessment/ Evidence</u>		
Interactive Achievement Formative Assessment - Exit Ticket		
<i>Learning Plan ~ What are the strategies and activities you plan to use?</i>		
<u>Learning Experiences/ Best Practice</u>		
I Have, Who Has Cards on Exponents and Perfect Squares Exponent Tic-Tac-Toe Game		
Text		
<u>Virginia Math Connects, Course 1</u> , ©2012, Glencoe/McGraw-Hill page(s) 62 – 65 (exponents and perfect squares)		
<u>Coach book, 6th Grade Virginia Gold Edition</u> 6.5 – page(s) 51 – 56		
Mulligan Math in Minutes 6.5		
<u>Technology Integrations</u>		
Gizmo – Square Roots - interactive instructional resource Smart Exchange - interactive skill practice Squares and Square Roots [SMART Notebook lesson] Math Exponents [SMART Notebook lesson]		

Resources

Virginia Department of Education

[Build a Square](#) – lesson plan

[SOL 6.5](#) – lesson plan

[Perfecting Squares](#) (PDF) - Investigating positive exponents and perfect squares

Other Sites

<http://www.crctlessons.com/Perfect-Squares/perfect-squares-game.html>

Cross Curricular Connection

Reading – Read the story *One Grain Of Rice: A Mathematical Folktale* or *The King's Chessboard*

Have children discuss the concept of using exponents to solve real world problems. Ask them to determine how the main characters used math to make decisions.

Materials

Manipulatives

Geoboards

Rubber bands

Square color tiles

Technology Resources

LCD Projector

Speakers

Computer w/Internet Connection

Student Supplies

Grid Paper

Markers or Crayons

Multiplication Chart

Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 4 days

<i>Desired Results ~ What will students be learning?</i>
<u>Standards of Learning/ Standards</u>
6.8 The student will evaluate whole number numerical expressions, using the order of operations.
<u>Essential Understandings/ Big Ideas</u>
<ul style="list-style-type: none">• What is the significance of the order of operations? <i>The order of operations prescribes the order to use to simplify expressions containing more than one operation. It ensures that there is only one correct answer.</i>
<u>Key Essential Skills and Knowledge</u>
<ul style="list-style-type: none">• Simplify expressions by using the order of operations in a demonstrated step-by-step approach. The expressions should be limited to positive values and not include braces { } or absolute value . Find the value of numerical expressions, using order of operations, mental mathematics, and appropriate tools. <i>Exponents are limited to positive values.</i>• The order of operations is a convention that defines the computation order to follow in simplifying an expression.• The order of operations is as follows:<ul style="list-style-type: none">–First, complete all operations within grouping symbols*. If there are grouping symbols within other grouping symbols, do the innermost operation first.–Second, evaluate all exponential expressions.–Third, multiply and/or divide in order from left to right.–Fourth, add and/or subtract in order from left to right. <p>* Parentheses (), brackets [], braces { }, and the division bar – as in $\frac{3+4}{5+6}$ should be treated as grouping symbols.</p>

- The power of a number represents repeated multiplication of the number (e.g., $8^3 = 8 \cdot 8 \cdot 8$). The base is the number that is multiplied, and the exponent represents the number of times the base is used as a factor. In the example, 8 is the base, and 3 is the exponent.
- Any number, except 0, raised to the zero power is 1. Zero to the zero power is undefined.

Vocabulary

<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>
Order of Operations	Expression	Power
Grouping Symbols	Product	Undefined
Factor	Dividend	Brackets
Quotient	Sum	Braces
Addend	Difference	
Base	Exponent	
Simplify		

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

Assessment/ Evidence

Interactive Achievement
Formative Assessment - Exit Ticket

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

Learning Experiences/ Best Practice

PEMDAS - Foldable (interactive notebook)
 Order in the Court – You Tube Video
 Order of Operations Pumpkin Smash (Smart Exchange Activity)
 Order of Operation Task Cards
 Order of Operations Find the Mistake
Text
Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill
 page(s) 270 – 273 (Order of Operations)
 Extra Practice page –EP3 Lesson 1-3 / EP12 Lesson 5-1
Coach book, 6th Grade Virginia Gold Edition
 6.8 – page(s) 104 – 109

Mulligan Math in Minutes 6.8		
<u>Technology Integrations</u>		
Flocabulary – Order of Operations Brain Pop – Order of Operations - interactive skill practice Smart Exchange - interactive skill practice Equations: Which Order? (Question set) [SMART Response question set] Math Exponents [SMART Notebook lesson]		
<u>Resources</u>		
Virginia Department of Education Order of Operation - lesson plan Math Strategies – Instructional video SOL 6.8 – lesson plan Order Up – lesson plan Other Sites http://studyjams.scholastic.com/studyjams/jams/math/algebra/aorder-of-operations.htm http://studyjams.scholastic.com/studyjams/jams/math/problem-solving/psorder-of-operations.htm http://www.quia.com/rr/116044.html		
<u>Cross Curricular Connection</u>		
Family and Consumer Science – Following a specific order of ingredients in a recipe to create a finished product. Discuss or chart what might happen if the correct order is not followed. Science Lab – Combining chemicals to create a reaction. What would happen if the chemicals were not mixed in the correct order? Writing – Journals – Why is order important? What would happen if the order was not followed?		
<u>Materials</u>		
<u>Manipulatives</u> Task Cards Paper for foldable	<u>Technology Resources</u> LCD Projector Speakers Computer w/Internet Connection	<u>Student Supplies</u> Interactive Notebooks

Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 8 days

<i>Desired Results ~ What will students be learning?</i>
<u>Standards of Learning/ Standards</u>
6.18 The student will solve one-step linear equations in one variable involving whole number coefficients and positive rational solutions.
<u>Essential Understandings/ Big Ideas</u>
<ul style="list-style-type: none">When solving an equation, why is it necessary to perform the same operation on both sides of an equal sign? To maintain equality, an operation performed on one side of an equation must be performed on the other side.
<u>Key Essential Skills and Knowledge</u>
<ul style="list-style-type: none">Represent and solve a one-step equation, using a variety of concrete materials such as colored chips, algebra tiles, or weights on a balance scale.Solve a one-step equation by demonstrating the steps algebraically.Identify and use the following algebraic terms appropriately: <i>equation, variable, expression, term, and coefficient.</i>A one-step linear equation is an equation that requires one operation to solve.A mathematical expression contains a variable or a combination of variables, numbers, and/or operation symbols and represents a mathematical relationship. An expression cannot be solved.A term is a number, variable, product, or quotient in an expression of sums and/or differences. In $7x^2 + 5x - 3$, there are three terms, $7x^2$, $5x$, and 3.A coefficient is the numerical factor in a term. For example, in the term $3xy^2$, 3 is the coefficient; in the term z, 1 is the coefficient.Positive rational solutions are limited to whole numbers and positive fractions and decimals.

- An equation is a mathematical sentence stating that two expressions are equal.
- A variable is a symbol (placeholder) used to represent an unspecified member of a set.

Vocabulary

<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>	
coefficient	equation	balance	operation
expression	numerical expression	sum	difference
term	variable	product	quotient
variable expression	inverse operation		

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

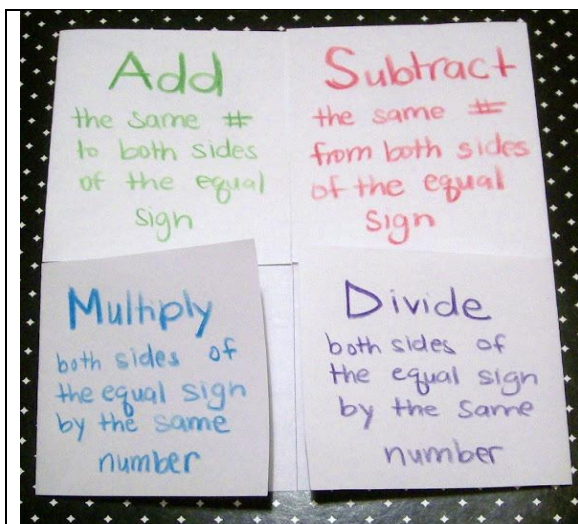
Assessment/ Evidence

Interactive Achievement
 Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill Page(s) 356 – 357
 Formative Assessment - Flash Answers

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

Learning Experiences/ Best Practice

Guided Notes – Interactive Notebook
 Equation Foldable



Make a matching equations game

Draw and label the parts of a mathematical equation

Text

Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill

page(s) 314 – 317 (addition and subtraction), 322 – 326 (models),
335 – 338 (multiplication), 339 -343(division)

Extra Practice page –EP 14 - 16 Lessons 6-1 and 6-2

Coach book, 6th Grade Virginia Gold Edition

page(s) – 238 – 243

Mulligan Math in Minutes 6.18

Technology Integrations

Brain Pop – Equations with Variables - interactive skill practice

<https://www.brainpop.com/math/algebra/>

Gizmo – Modeling One-step Equations - interactive instructional resource

<http://www.explorelarning.com/index.cfm?method=cResource.dspDetail&resourceid=109>

Smart Exchange - interactive skill practice

[Solving One-Step Equations \[SMART Notebook lesson\]](#)

[Equations](#) [[SMART Notebook lesson](#)]

Resources

Virginia Department of Education

[Balanced](#) – lesson plan

[Equation Vocabulary](#) - lesson plan

[SOL 6.18, 7.14](#)- lesson plan page 65

Other Sites

Study Jams – [Add and Subtract](#)

Study Jams – [Multiply and Divide](#)

[interactivesitesweebly](#)

Cross Curricular Connection

Language Arts – Vocabulary Review

Computer Science – Creating algorithms

Writing – Journals – What does it mean to balance an equation?

Materials

Manipulatives

Balance Scale

Colored Chips

Algebra Tiles

Technology Resources

LCD Projector

Speakers

Computer w/Internet Connection

Student Supplies

Interactive Notebooks

Color Pencils or Crayons

Course Title/ Course #: Math Grade 6

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 6 days

<i>Desired Results ~ What will students be learning?</i>
<u>Standards of Learning/ Standards</u>
6.1
The student will describe and compare data, using ratios, and will use appropriate notations, such as $\frac{a}{b}$, a to b, and $a:b$.
<u>Essential Understandings/ Big Ideas</u>
What is a ratio? A ratio is a comparison of any two quantities. A ratio is used to represent relationships within a set and between two sets. A ratio can be written using fraction form ($2/3$), a colon ($2:3$), or the word to (2 to 3).
<u>Key Essential Skills and Knowledge</u>
<ul style="list-style-type: none">• Describe a relationship within a set by comparing part of the set to the entire set.• Describe a relationship between two sets by comparing part of one set to a corresponding part of the other set.• Describe a relationship between two sets by comparing all of one set to all of the other set.• Describe a relationship within a set by comparing one part of the set to another part of the same set.• Represent a relationship in words that makes a comparison by using the notations a b , $a:b$, and a to b.• Create a relationship in words for a given ratio expressed symbolically. • A ratio is a comparison of any two quantities. A ratio is used to represent relationships within and between sets.• A ratio can compare part of a set to the entire set (part-whole comparison).• A ratio can compare part of a set to another part of the same set (part-part comparison)• A ratio can compare part of a set to a corresponding part of another set (part-part comparison).• A ratio can compare all of a set to all of another set (whole-whole comparison). • The order of the quantities in a ratio is directly related to the order of the quantities expressed in the relationship. For example, if asked for the ratio of the number of cats to dogs in a park, the ratio must be expressed as the number of cats to the number of dogs, in that order.

- A ratio is a multiplicative comparison of two numbers, measures, or quantities.
- All fractions are ratios and vice versa.
- Ratios may or may not be written in simplest form.
- Ratios can compare two parts of a whole.
- Rates can be expressed as ratios.

Vocabulary

<u>Academic Vocabulary</u>		<u>Content Vocabulary</u>	
Ratio	Part - Whole Comparison	Comparison	Quantities
Fraction	Part – Part Comparison	Simplify	Expressed
Rate	Whole – Whole Comparison	Simplest form	Relationship
Unit Rate	Numerator	Colon	
Denominator			

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

Assessment/ Evidence

Interactive Achievement
Formative Assessment - Foldable

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

Learning Experiences/ Best Practice

Frayer Model vocabulary
Types of comparison foldable
3 ways to write a ratio flip foldable

Text

Virginia Math Connects, Course 1, ©2012, Glencoe/McGraw-Hill

page(s) 150 – 155 and 173 - 177

Extra Practice page –EP 7 – 8 Lessons 3-1 and 3-3

Coach book, 6th Grade Virginia Gold Edition

page(s) – 20 - 25

Mulligan Math in Minutes 6.1

Technology Integrations

Brain Pop – [Ratios](#) - interactive skill practice
Gizmo – [Part to Part and Part to Whole Ratios](#) - interactive instructional resource
Smart Exchange - interactive skill practice
[Ratio \[SMART Notebook lesson\]](#)

Resources

Virginia Department of Education
[Teaching Ratios](#) – Instructional video
[Field Goals, Balls, and Nets](#) - Lesson plan
[Understanding Ratios](#) Lesson Plan, page 2
Other Sites
Study Jams – [Ratio](#) – Instructional review

Cross Curricular Connection

Family and Consumer Science – cooking activities – change the ratio of ingredients.
Art – Create different hues of paint by changing the ratio of combined paints. (Ex. 2 drops of red paint and 1 drop of blue) The students can then change the ratio to change the hue to a darker or lighter color.
 Make a geometric design using shapes based on a ratio. (Ex. 12 triangles to 1 hexagon) What can you design?
Social Studies – Draw maps using a scale to indicate length.

Materials

Manipulatives

Color Pencils or Crayons
Centimeter Cubes
Paper bags for cubes

Technology Resources

LCD Projector
Speakers
Computer w/Internet Connection

Student Supplies

Interactive Notebooks