

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



Course Title/ Course #: Math Grade 7

Unit Title/ Marking Period # (MP): 1

Start day:

Meetings (Length of Unit): 8 days

Desired Results ~ What will students be learning?

Standards of Learning/ Standards

SOL 7.13

The student will

- a) write verbal expressions as algebraic expressions and sentences as equations and vice versa; and
- b) Evaluate algebraic expressions for given replacement values of the variables.

Essential Understandings/ Big Ideas

How can algebraic expressions and equations be written?

Word phrases and sentences can be used to represent algebraic expressions and equations

Key Essential Skills and Knowledge

- Write verbal expressions as algebraic expressions. Expressions will be limited to no more than 2 operations.
- Write verbal sentences as algebraic equations. Equations will contain no more than 1 variable term.
- Translate algebraic expressions and equations to verbal expressions and sentences. Expressions will be limited to no more than 2 operations.
- Identify examples of expressions and equations.
- Apply the order of operations to evaluate expressions for given replacement values of the variables. Limit the number of replacements to no more than 3 per expression.

<u>Vocabulary</u>	
Academic Vocabulary	Content Vocabulary
Expression Numerical Expression Algebraic Expression Equations Algebraic Equation Order of Operations Variables	Apply Identify Translate Replacement Substitution Evaluate
<i>Assessment Evidence ~ What is evidence of mastery? What did the students master & what are they missing?</i>	
<u>Assessment/ Evidence</u>	
<ul style="list-style-type: none"> • Interactive Achievement • Exit Quiz • Virginia SOL Coach, New Gold Edition, Mathematics, Grade 7, page(s) 214 – 217 questions: 2, 3, 4, 5, 6, 8, and 12 <p>H.O.T –(Higher Order Thinking) Virginia Math Connects, Course 2, ©2012, Price, et al, McGraw-Hill School Education Group 1, Evaluating Algebraic Expressions, page 37</p> <p>Test Practice Questions: Virginia Math Connects, Course 2, ©2012, Price, et al, McGraw-Hill School Education Group 1, Evaluating Algebraic Expressions, page 37</p>	
<i>Learning Plan ~ What are the strategies and activities you plan to use?</i>	
<u>Learning Experiences/ Best Practice</u>	
<p>Teacher Resources:</p> <ul style="list-style-type: none"> • Use Frayer Model and/or Marzano for new vocabulary terms • Have students create a “Translator Handbook” for operational words • Use highlighters and have students highlight all operational words when translating algebraic expressions • Pay close attention to words like, “less than”, “more than” 	

Student Activities:

- [Translating Verbal Expressions](#)
- [The Cryptography Files - Evaluating Algebraic Expressions](#) - Lesson Plan and Activity

Interactive Student Practice:

- [Translating Algebraic Expression](#) - Reference Sheet 1
- [Math Millionaire Algebraic Expression](#) – ISA
- [Translating Algebraic Expressions](#) – ISA
- [Verbal and Algebraic Expressions](#) – ISA
- [Translating Algebraic Expression](#) – Review Video
- [Translating Algebraic Expression](#) – Review and Practice
- [Writing Algebraic Expression](#) – Khan Academy and Practice
- [Translating Algebraic Expressions](#) -Reference Sheet 2
- [Evaluating Algebraic Expressions](#) – Partner ISA

Technology Integrations**SmartBoard Lessons –**

[Evaluating Expression](#)

[Translating Expressions and Equations](#)

[Verbal Expression](#) – Smartboard Lesson

[Translating Verbal Expressions](#) with Order of Operations Review

Gizmo Lessons-

7.13a - Using Algebraic Equations

7.13a – Using Algebraic Expressions

Resources**Text:**

Virginia Math Connects, Course 2, ©2012, Price, et al, McGraw-Hill School Education Group 1: [Evaluating Algebraic Expressions](#)
page(s): 33 - 37

Virginia SOL Coach, New Gold Edition, Mathematics, Grade 7,

[Write Algebraic Expressions](#), page(s):178 – 183;

[Write Algebraic Equations](#), page(s): 192 – 197

Simplifying and Evaluating Expressions, page(s):184 - 191
Mulligan Math in Minutes 7.13
Interactive Reading and Note taking – SOL - 7.13

Virginia Department of Education Lesson Plan(s):
[Translating and Evaluating Algebraic Expressions](#)
[Evaluating Expression](#)

Cross Curricular Connection

Foreign Language – Students related operational words like going to a foreign country and having a translator dictionary. Have students create a translation dictionary that includes the English Word and a Foreign Language Translation. **Example: Words for Addition (Además): English: Sum Spanish: Suma**

Science- Using science formulas and different situations to determine the answer. Ex. Speed, Velocity, Conversion from Celsius to Fahrenheit

Materials

Manipulatives

Dice
Small Candy ((Skittles, Smarties, any colorful candy) be sure to check for student allergies)

Technology Resources

LCD Projector
Speakers
Computer w/Internet Connection and SmartBoard
Software
SmartBoard

Student Supplies

Whiteboards/Markers
Frayer Model/ Marzano
Interactive Student Notes
Translating Algebraic Equation Game board