

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): 6 days

Desired Results ~ What will students be learning?

Standards of Learning/ Standards

SOL 7.16

The student will apply the following properties of operations with real numbers...

- a) the commutative and associative properties for addition and multiplication;
- b) the distributive property;
- c) the additive and multiplicative identity properties;
- d) the additive and multiplicative inverse properties; and
- e) the multiplicative property of zero.

Essential Understandings/ Big Ideas

Why is it important to apply properties of operations when simplifying expressions?

Using the properties of operations with real numbers helps with understanding mathematical relationships.

Key Essential Skills and Knowledge

- Identify properties of operations used in simplifying expressions.
- Apply the properties of operations to simplify expressions.

<u>Vocabulary</u>	
<u>Academic Vocabulary</u>	<u>Content Vocabulary</u>
Rational Numbers Commutative Property Associative Property Distributive Property Additive Inverse Multiplicative Inverse Additive Identity Multiplicative Identity Multiplication Property of Zero Real Numbers	Identify Apply Justify Simplify Expression
<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 • BrainPop Assessments <p>H.O.T –(Higher Order Thinking) Virginia Math Connects, Course 2, ©2012, Price, et al, McGraw-Hill School Education Group 1, Properties, page 41</p> <p>Test Practice Questions: Virginia Math Connects, Course 2, ©2012, Price, et al, McGraw-Hill School Education Group 1, Properties, page 41</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 • Foldable- to define each property with examples • Create a matching activity Justifying- Giving students an equation that has been solved, can they justify which property was used at each step 	

Technology Integrations

Brainpop

SmartBoard Lesson –

[Math Properties Tag Game](#) – (This need to be edited, remove slides 6 and 7)

[Matching Properties for Addition and Multiplication](#)

[Distributive Property](#) – Uses Illustrations to explain the Distributive Property

Resources

Text:

- [Virginia Math Connects, Course 2](#), ©2012, Price, et al, McGraw-Hill School Education Group 1 –
Commutative- [page\(s\) 38 – 41; 90](#);
Distributive – [page\(s\) 38 -41](#)
Associative- [page\(s\) 38 - 41; 90](#);
Multiplicative Property of Zero- [pages\(s\) 38 -41](#);
Identity Property [page\(s\) 38 – 41](#);
Inverse Property - [page\(s\) 89](#) (additive inverse);
(multiplicative inverse), [page\(s\) 220 – 221](#)
- Virginia SOL Coach, New Gold Edition, Mathematics, Grade 7,
[Property Review page\(s\) 184 – 186](#)
- Mulligan Math in Minutes
[SOL - 7.16](#)
- Interactive Reading and Note taking –
[SOL - 7.16](#)

Technology:

[BrainPop](#):

- Associative Property
- Commutation Property
- Distributive Property:

Virginia Department of Education Lesson Plan(s):

- [Properties](#)

Other Site(s):

- [Properties of Real Numbers](#) – Lessons and Activities

Cross Curricular Connection

History – Students will research and find out the history and the curator of each property

Materials

Manipulatives

Technology Resources

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

Student Supplies

Whiteboards/Markers
 Frayer Model/ Marzano
 Interactive Student Notes
 Distributive Property Materials