

## UNIT OF STUDY

Title: Unit 6		Subject/Course: Math		Length: 3 weeks	
Topic: Properties of Addition & Mult.		Grade: 5th		Designer: O'Cain & Smith	
UNIT GOALS AND EXPECTATIONS					
IMPORTANT CONCEPTS: <ul style="list-style-type: none"><li>When you use the Associative Property, the numbers and their order are the same on both sides of the equation, but the numbers are grouped differently.</li><li>Solving equations is sometimes made simpler and easier by using multiplication properties.</li><li>Multiplication distributes over addition. When one factor is broken apart, each part is then multiplied by the other factor.</li></ul>			ESSENTIAL QUESTIONS: <ul style="list-style-type: none"><li>How do number properties assist in computation?</li><li></li></ul>		
STUDENT LEARNING EXPECTATIONS: NO.2.5.2 Identify <i>commutative</i> and <i>associative properties</i>			NO.2.5.3 Identify the <i>distributive property</i> by using physical models to solve computation and real world problems		
SPECIFIC DECLARATIVE KNOWLEDGE – What I know Explain Vocabulary terms: Commutative Property Associative Property Distributive Property			SPECIFIC PROCEDURAL KNOWLEDGE – What I need to do *state the difference between an expression and an equation *identify that a variable represents an unknown value *apply expressions to real-world situations *write expressions containing one variable *use physical models to demonstrate that Distributive Property is used to break down numbers to make a problem easier to solve in your head *use the Distributive Property to show different representations of the same value *solve problems using Distributive Property		
UNIT ASSESSMENTS (Include tasks related to Dimensions 3 and 4 and Bloom's Taxonomy)					
Activity that demonstrates writing equations using Commutative, Associative, and Distributive Properties.					
Traditional Assessments: Teacher constructed quiz on using properties. Teacher constructed test on using properties.			Other Evidence of Learning: Weekly homework assignments Classwork practice		

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ACTIVITIES AND LEARNING EXPERIENCES	Resources
<p>1. Introduce the concept of Addition Properties using the Harcourt Text.</p> <p>2. Use video to reinforce the Addition Properties. – <a href="http://www.unitedstreaming.com">www.unitedstreaming.com</a>  Discovering Math: Arithmetic – Associative Property of Addition  Discovering Math: Arithmetic – Commutative Property, Changing Positions</p> <p>3. Introduce the Concept of the Multiplication Properties using the Harcourt Text.</p> <p>4. Use videos to reinforce the Multiplication Properties. – <a href="http://www.unitedstreaming.com">www.unitedstreaming.com</a>  Discovering Math: Arithmetic- Associate Property of Multiplication  Discovering Math: Arithmetic- Distributive Property</p> <p>5. Use videos to reinforce the Properties of Multiplication and Addition.  – <a href="http://www.brainpop.com">www.brainpop.com</a></p>	<p>Harcourt Ch. 4 Lesson 5</p> <p><a href="http://player.discoveryeducation.com/index.cfm?guidAssetId=D4A56926-FC25-4517-99A6-4B14ABDA6BFF&amp;blnFromSearch=1&amp;productcode=US">http://player.discoveryeducation.com/index.cfm?guidAssetId=D4A56926-FC25-4517-99A6-4B14ABDA6BFF&amp;blnFromSearch=1&amp;productcode=US</a></p> <p>Harcourt Ch. 12 Lesson 6 &amp; 7</p> <p><a href="http://player.discoveryeducation.com/index.cfm?guidAssetId=D4A56926-FC25-4517-99A6-4B14ABDA6BFF&amp;blnFromSearch=1&amp;productcode=US">http://player.discoveryeducation.com/index.cfm?guidAssetId=D4A56926-FC25-4517-99A6-4B14ABDA6BFF&amp;blnFromSearch=1&amp;productcode=US</a></p> <p><a href="http://www.brainpop.com/math/numbersandoperations/associativeproperty/preview.weml">http://www.brainpop.com/math/numbersandoperations/associativeproperty/preview.weml</a></p>
Career Connections	
<p>Discuss how chemists, biologists, and chemical engineers use properties when experimenting with solutions.</p>	

## Performance Assessment

Name: \_\_\_\_\_

1. Demonstrate the Commutative Property using the following numbers:

4, 5

2. Demonstrate the Associative Property using the following numbers:

3, 4, 5

3. Demonstrate the Distributive Property using the following:

$$3 \times (4 + 5) =$$

$$3 \times 17 =$$