

# 6<sup>th</sup> Grade Unit 4 Information

## Expressions

CRCT Domain & Weight: 23 %

**See Flip Books On Concept Pages.**

[Overview of Unit 4](#)

[Prerequisites: Unit 4](#)

Unit Length: Approximately 19 days

[Checklist for Unit 4](#)

[Study Guide for Unit 4](#)

[Study Guide KEY for Unit 4](#)

**[Suggested Calculator Use: Unit 4](#)**

Click on the links below for resources by Concept:

[Concept One: Numerical Expressions](#)

[Concept Two: Writing Algebraic Expressions](#)

[Concept Three: Simplifying & Evaluating Expressions](#)

# TCSS 6<sup>th</sup> Math Unit 4 ~ Expressions

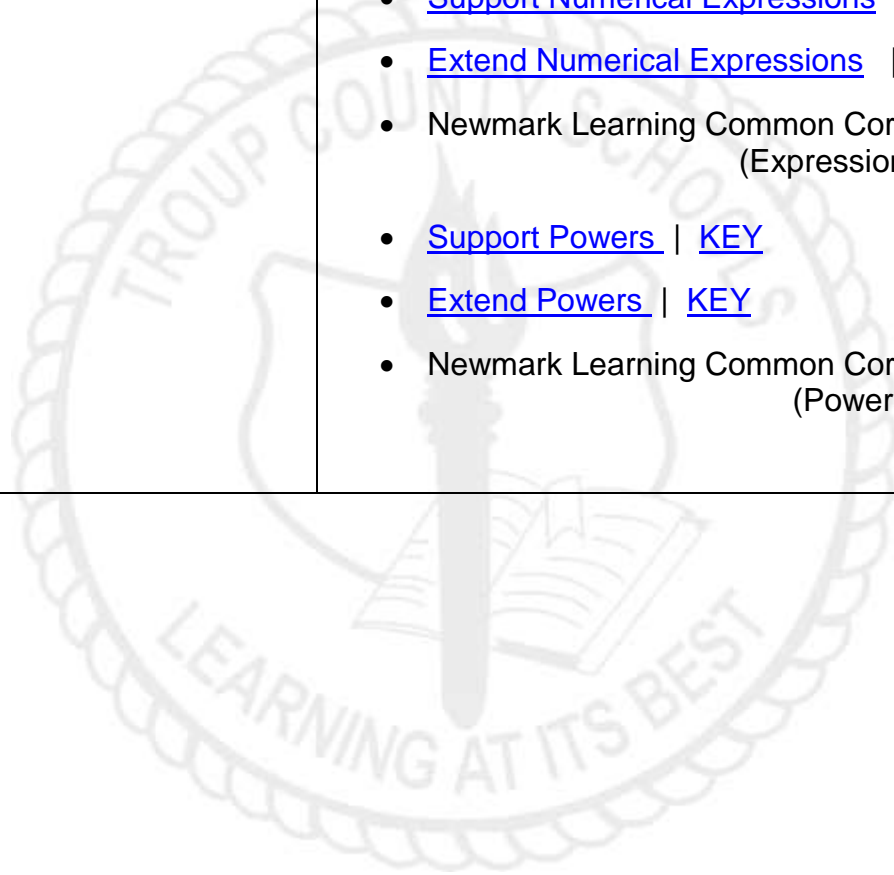
## Concept One: Numerical Expressions

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.EE.1</b> Write and evaluate numerical expressions involving whole-number exponents.</p> <p><b>E.Q.</b> Why is it important to follow an order of operation?</p> <p><b>MGSE6.EE.3</b> Apply the properties of operations to generate equivalent expressions. <i>For example, apply the distributive property to the expression <math>3(2+x)</math> to produce the equivalent expression <math>6+3x</math>; apply the distributive property to the expression <math>24x+18y</math> to produce the equivalent expression <math>6(4x+3y)</math>; apply properties of operations to <math>y+y+y</math> to produce the equivalent expression <math>3y</math>.</i></p> <p><b>E.Q.</b> How are properties of numbers helpful in computation?</p>	<ul style="list-style-type: none"> <li>• Associative Property</li> <li>• Commutative Property</li> <li>• Distributive Property</li> <li>• Order of Operations</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Flip Book EE.1</a></li> <li>• <a href="#">Flip Book EE.3</a></li> <li>• Eureka Math (2014 Common Core) <a href="#">License</a> <ul style="list-style-type: none"> <li>○ Exponents <a href="#">SE</a>   <a href="#">TE</a></li> <li>○ Order of Operations <a href="#">SE</a>   <a href="#">TE</a></li> <li>○ Distributive Property <a href="#">SE</a>   <a href="#">TE</a></li> <li>○ Factoring <a href="#">SE</a>   <a href="#">TE</a></li> </ul> </li> <li>• <a href="#">ActivInspire: Order of Operations</a></li> <li>• CCGPS Frameworks Exponents <a href="#">SE</a>   <a href="#">TE</a></li> <li>• CCGPS Frameworks Rules for Exponents <a href="#">SE</a>   <a href="#">TE</a></li> <li>• Glencoe CCSS Math Text (McGraw-Hill, 2013) p. 433-448</li> <li>• Glencoe CCSS Math Text (McGraw-Hill, 2013) p. 473-492</li> <li>• <a href="#">Skills Practice Numerical Expressions</a></li> <li>• <a href="#">Word Problem Practice</a></li> <li>• <a href="#">Understanding Exponents</a></li> </ul> <p><i>Continued on the next page...</i></p>	<p><b><a href="#">MGSE6.EE.1</a></b></p> <p><b><a href="#">MGSE6.EE.3</a></b></p>

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## Concept One: Numerical Expressions

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
		<p><i>...Continued from the previous page.</i></p> <p><b><u>Differentiation Opportunities:</u></b></p> <ul style="list-style-type: none"> <li>• <a href="#">Support Numerical Expressions</a>   <a href="#">KEY</a></li> <li>• <a href="#">Extend Numerical Expressions</a>   <a href="#">KEY</a></li> <li>• Newmark Learning Common Core Math Book (Expressions) Pages 81-85</li> <li>• <a href="#">Support Powers</a>   <a href="#">KEY</a></li> <li>• <a href="#">Extend Powers</a>   <a href="#">KEY</a></li> <li>• Newmark Learning Common Core Math Book (Powers) Pages 76-80</li> </ul>	



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## Concept Two: Writing Algebraic Expressions

Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.EE.2</b> Write, read, and evaluate expressions in which letters stand for numbers.</p> <p><b>EQ:</b> How does the result change when the value of the variable is changed?</p> <p><b>MGSE6.EE.2a</b> Write expressions that record operations with numbers and with letters standing for numbers. <i>For example, express the calculation “Subtract y from 5” as <math>5-y</math>.</i></p> <p><b>MGSE6.EE.2b</b> Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. <i>For example, describe the expression <math>2(8+7)</math> as a product of two factors; view <math>(8+7)</math> as both a single entity and a sum of two terms.</i></p>	<ul style="list-style-type: none"> <li>• Algebraic Expression</li> <li>• Coefficient</li> <li>• Constant</li> <li>• Variable</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Flip Book EE.2</a></li> <li>Activator: Inquiry Lab Investigation: Glencoe CCSS Math Text (McGraw-Hill, 2013) p. 429-432</li> <li>• Eureka Math (2014 Common Core) <a href="#">License</a> Concept Two ~ <a href="#">SE</a>   <a href="#">TE</a></li> <li>• <a href="#">Graffiti for Expressions</a></li> <li>• <a href="#">Graffiti Graphic Organizer</a></li> <li>• <a href="#">Variable Expressions Relay</a></li> <li>• Glencoe CCSS Math Text (McGraw-Hill, 2013) p. 457-471</li> <li>• <a href="#">Skills Practice Write Expressions</a></li> <li>• <b><u>Differentiation Opportunities:</u></b> <ul style="list-style-type: none"> <li>○ Support Writing Expressions <a href="#">SE</a>   <a href="#">TE</a></li> <li>○ Extend/OnTarget Expressions <a href="#">SE</a>   <a href="#">TE</a></li> <li>○ Newmark Learning Common Core Math Book Pages 87-90</li> </ul> </li> </ul>	<p><b><a href="#">MGSE6.EE.2ab</a></b></p> <p><a href="#">[Back to Top]</a></p>

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Concept Three: Simplifying & Evaluating Expressions			
Standard(s) & Essential Questions	Vocabulary	Resources	Assessment
<p><b>MGSE6.EE.2c</b> Evaluate expressions at specific values for their variables. Include expressions that arise from formulas in real-world problems. Perform arithmetic operations, including those involving whole-number exponents, in the conventional order when there are no parentheses to specify a particular order (Order of Operations). <i>For example, use the formulas <math>V=s^3</math> and <math>A=6s^2</math> to find the volume and surface area of a cube with sides of length <math>s=1/2</math>.</i></p> <p><b>E.Q.</b> What properties and conventions do I need to understand in order to simplify and evaluate algebraic expressions?</p> <p><b>E.Q.</b> What strategies can I use to help me understand and represent real situations using expressions?</p> <p><b>MGSE6.EE.4</b> Identify when two expressions are equivalent (i.e., when the two expressions name the same number regardless of which value is substituted into them). <i>For example, the expressions <math>y+y+y</math> and <math>3y</math> are equivalent because they name the same number regardless of which number <math>y</math> stands for.</i></p> <p><b>EQ:</b> How can you determine if two expressions are equivalent?</p>	<ul style="list-style-type: none"> <li>term</li> <li>like terms</li> </ul>	<ul style="list-style-type: none"> <li><a href="#">Flip Book EE.4</a></li> <li><a href="#">Do Eureka Lessons to evaluate</a> <a href="#">License</a></li> <li><a href="#">Eureka Math Optional Lesson 21</a> <a href="#">License</a></li> <li><a href="#">Power Point: Evaluate Expressions</a></li> <li><a href="#">Station Activities</a> <ul style="list-style-type: none"> <li>Station1-make cards prior; need dice</li> <li>Station 2 – no supplies</li> <li>Station 3 – no supplies</li> <li>Station 4- create cards prior</li> </ul> </li> <li>Glencoe CCSS Math Text (McGraw-Hill, 2013) p. 449-456 and 493-502</li> <li>Word Problems           <ul style="list-style-type: none"> <li><a href="#">Variables and Expressions</a></li> <li><a href="#">Writing Expressions</a></li> <li><a href="#">Equivalent Expressions</a></li> </ul> </li> <li><a href="#">Expressions Task</a></li> <li><b>Differentiation Opportunity:</b> <ul style="list-style-type: none"> <li>Support Expressions <a href="#">SE</a>   <a href="#">TE</a></li> <li>Extend/On Target Expressions <a href="#">SE</a>   <a href="#">TE</a></li> </ul> </li> </ul>	<p><b><a href="#">MGSE6.EE.4</a></b></p> <p><a href="#">[Back to Top]</a></p>