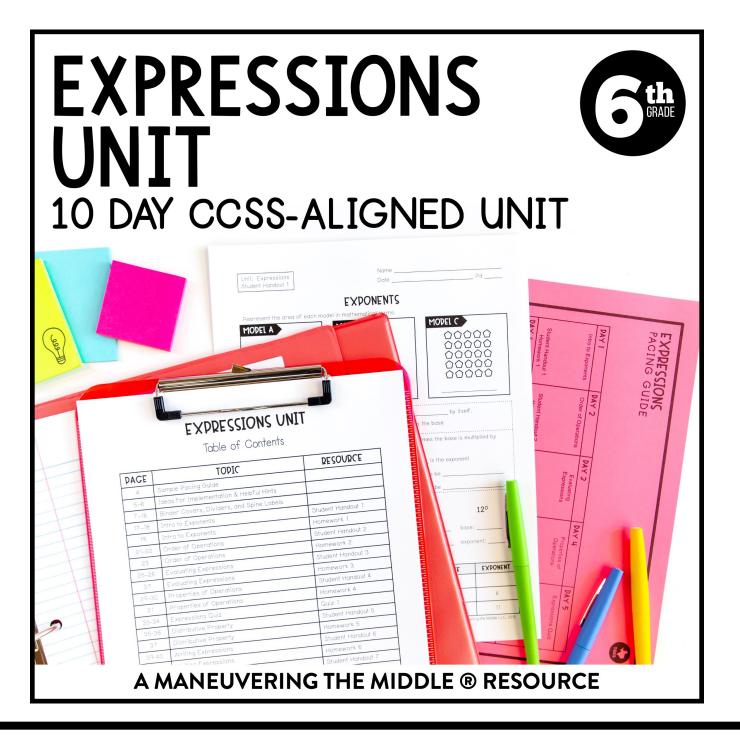
## learning focus:

- generate equivalent expressions using order of operations
- √ write and evaluate expressions
- apply properties of operations to generate equivalent expressions





a 10 day CCSS-aligned unit

CCSS: 6.EE.1, 6.EE.2, 6.EE.2a-c, 6.EE.3, 6.EE.4

# ready-to-go, scaffolded student materials

### EXPRESSIONS UNIT

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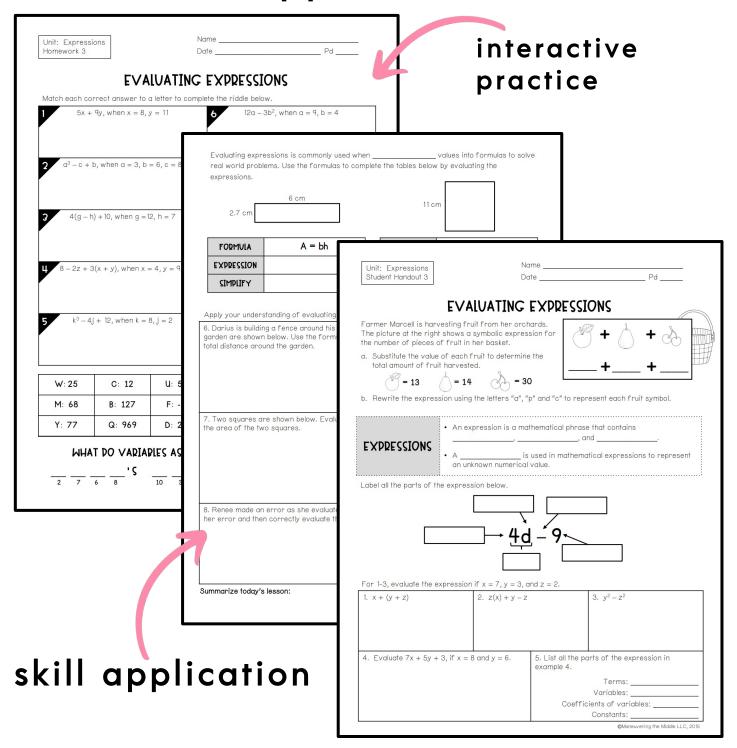
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a 10 day CCSS-aligned unit CCSS: 6.EE.1, 6.EE.2, 6.EE.2a-c, 6.EE.3, 6.EE.4

# student friendly + real-world application



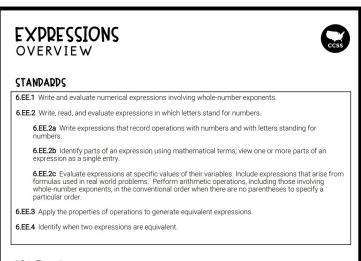
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a 10 day CCSS-aligned unit

CCSS: 6.EE.1, 6.EE.2, 6.EE.2a-c, 6.EE.3, 6.EE.4

## streamline your planning process with unit overviews







#### **PIC IDEAS**

- · Expressions are mathematic
- An expression can include le
- · Expressions are used in rea

#### EXPRESSIONS PACING GUIDE



sample pacing calendar

#### **ESSENTIAL QUESTION**

- · What process can you use
- · Why do properties of operat
- Why is there a process for s
- · Why do we differentiate bety

DAY 1

Intro to Exponents	Order of Operations
Student Handout 1 Homework 1	Student Handout 2 Homework 2
DAY 6	DAY 7
Distributive Property	Writing Expressions
Student Handout 5	Student Handout 6

DAY 2

#### EXPRESSIONS OVERVIEW

Properties of

Evaluating

TOPIC	TEACHING TIPS
	Order of operations can be a tricky concept for students. Consider emphasizing the process and following specific steps.
Order of Operations	<ul> <li>A fun engagement piece is to bring in a recipe for a batch of cookies. If you wanted to get creative, you could bring some of the ingredients and "make" the recipe out of order. Have students discuss why the order is important and then relate it to order of operations.</li> </ul>
	Note: Students need to underline each step. I usually taught it this way and required the work. You could also have them highlight or use a colored pencil.

Expressions Quiz

This is a great activity for dry erase markers and color tiles. Have students write the expression on their **Evaluating Expressions** desk and have each color tile represent a different variable. Students can work with a partner to check their work and coach each other. Just a quick idea to change it up a bit

Properties are a struggle to recall and apply. I would suggest creating a large anchor chart with a three-column table. Include the name of the property and an example of two equivalent expressions. The key concept students should be able to recognize is that each property results in an equivalent expression, Properties of Operations the property does not change the problem

Have students work in groups of four and sketch a graphic organizer similar to a Frayer model on the have students with in gloups of our and security and plantic organized similar of a hayer mode of the butcher paper. In the middle of a large piece of butcher paper write an expression, and then have students come up with four different verbal expressions that are equivalent. Let students use marker to make it a bit more fun! Writing Expressions

It is easy for students to get confused when comparing two unknowns. Encourage students to

Real World Application I have also found it helps when students use variables other than x to describe the different situations For example, the first letter of a person's name in the problem or w for width.

teaching ideas

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### unit study guide + assessments

Unit: Expressions Quiz 1	Name Pd	√ quizzes
QUIZ: EXPRESSIONS Solve each of the problems below. E	Answers  a sure to show your thinking.	editable unit tes
1. What is the value of the expression	2 10 6 + 5 · (8 ÷ 2) <sup>2</sup> ? 3	
2. Which expression is not equivale	Unit: Expressions Review	Name Date Pd
A. 6 <sup>3</sup> B. 6 · 6 · 6 C. 8 · 6 <sup>2</sup>		IS STUDY GUIDE resent the types of questions on your test. Be sure
D. 3 <sup>3</sup> ·8	I CAN WRITE AND EVALUATE NUMERICAL EXPONENTS.  1. Evaluate each expression below.	
For questions 3-4, evaluate the express. $(z-y^2)+x$	a. $5^3 = $	
Determine which property is being us	Write each expression in expande     a. 18 <sup>1</sup> b. 9 <sup>3</sup>	SIXTH GRADE CURRICULUM
<ul> <li>5. 16 + 7 + 9 = 7 + 9 + 16</li> <li>A. commutative property of addition</li> </ul>	c. 6 <sup>7</sup>	
additive identity property     multiplicative identity property     associative property of addition	I CAN WRITE EXPRESSIONS IN WH  4. The product of a number and eight	EXPRESSIONS
	6. Twelve dollars times the number of	UNIT SEVEN: ANSWER KEYS
	8. Two times a number decreased b	
answer		
include	d	©MANEUVERING THE MIDDLE, 2015

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