

ISLP Lesson 4

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PLANNING

Essential Question	How can I evaluate expressions in word problems?
Topic or Unit of Study	Evaluating expressions in word problems
Grade/Level	Grade 5
Subject(s)	Mathematics
CT Approval/ Date	

21ST CENTURY SKILLS AND TECHNOLOGY TOOLS

Standards	<p>NC- North Carolina Essential Standards (2011)</p> <p>Subject: Information and Technology</p> <p>Grade or Concentration: Grade 5</p> <p>Strand: Technology as a Tool</p> <p>Essential Standard: 5.TT.1 Use technology tools and skills to reinforce and extend classroom concepts and activities.</p> <p>Clarifying Objective: 5.TT.1.3 Use technology tools to present data and information (e.g., multimedia, audio and visual recording, online collaboration tools, etc.).</p> <p>Strand: Safety and Ethical Issues</p> <p>Essential Standard: 5.SE.1 Understand issues related to the safe, ethical, and responsible use of information and technology resources.</p> <p>Clarifying Objective: 5.SE.1.3 Understand internet safety precautions (e.g., personal information, passwords, etc.).</p> <p>USA- Common Core State Standards (June 2010)</p> <p>Subject: Mathematics</p> <p>Grade: Grade 5</p> <p>Domain: Operations and Algebraic Thinking 5.OA</p> <p>Entire Cluster: Write and interpret numerical expressions. 1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols. 2. Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. For example, express the calculation "add 8 and 7, then multiply by 2" as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.</p>
Learning Targets/Objectives	<p>I can analyze the use of algebraic expressions and interpret variables in those expressions.</p> <p>I will generate multiple expressions from word problems and solve for the variable.</p>
Technology Tools	<ul style="list-style-type: none">Materials and resources: Students will use the iPads to play algebraic jeopardy with a partner.The number of computers required is 1 per 2 students.
Assessment/Rubrics	The teacher will score the practice sheet.

IMPLEMENTATION

Introduction to Lesson	The teacher will tell students that they have been working on learning the steps to solving expressions and that today we are going to see what that looks like in word problems and with variables.
Teacher Input	<p>The teacher will write problems on the board that contain variables.</p> <p>The teacher will ask students. "What is different about this problem than the ones we have seen this week?"</p> <p>How do you think we may solve this problem?</p> <p>The teacher will give students a value for the variable and solve it as a class.</p> <p>$5-a=2$ $a=3$</p>

	$2x(5-b)=6$ $b=2$ $(5+c)/(10-c)=2$ $c=5$ <p>The teacher will display word problems on the smart board and have students come and circle the key words in the problem along with the necessary information.</p> <p>The teacher will then guide student to setting up the problem.</p> <p>What is the problem asking me to find?</p> <p>What operation am I going to use for that?</p> <p>What is going to be my first step to solving this problem?</p>
Guided Practice	<p>Students will work with the teacher to solve the problems that are on the board.</p> <p>Before students break into partners to play algebraic jeopardy the teacher will discuss with students internet safety with a focus on usernames. The teacher will remind students that the usernames that they use should not show gender, age, or name. The teacher will have students come to the smart board to write examples of good usernames.</p>
Independent Practice	<p>Students will complete practice sheets.</p> <p>Students will play algebraic jeopardy with a partner on the iPad.</p>
Differentiated Instruction	<p>Students who are EC will have fewer problems to complete.</p> <p>Students who are ELL, as well as, EC will have the word problems read aloud. These students will be pulled to a designated area in the classroom so that they can have problems read aloud.</p> <p>Students who are AIG will be asked how could they write a word problem for the algebraic expression $4a=8$?</p>
Closure	<p>The teacher will ask students to think about what they learned in math today and to write their own word problem that contains a variable.</p>
Time Allotment	<p>1 class periods. 1 Hr. per class.</p>

MATERIALS AND RESOURCES

Instructional Materials	<p>practice sheet, word problems, iPads</p> <p>http://www.superteachertools.com/jeopardy/usergames/May201022/game1275294565.php</p>
Resources	

REFLECTION

Author's comments and reflection	
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