

ISLP Lesson 3

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PLANNING

Essential Question	How do I use grouping symbols to evaluate expressions?
Topic or Unit of Study	Evaluating expressions with grouping symbols
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:</p> <p>5.TT.1 Use technology tools and skills to reinforce and extend classroom concepts and activities.</p> <p>Clarifying Objective:</p> <p>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>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>Cluster: Write and interpret numerical expressions.</p> <p>Standard:</p> <p>1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p>
Learning Targets/Objectives	<p>I can evaluate expressions with other grouping symbols such as brackets and braces.</p> <p>I will evaluate expressions through interactive practice.</p>
Technology Tools	<ul style="list-style-type: none">Materials and resources: The teacher will go through the smart board lesson with students, having them come to the board to answer questions. Students will participate in a smart board race.The number of computers required is 1.
Assessment/Rubrics	The teacher will formatively assess students as they play a smart board race. The teacher will check the written work for understanding.

IMPLEMENTATION

Introduction to Lesson	The teacher will remind students that yesterday we worked on PEMDAS. The teacher will tell students that today we are going to work with the order of operations and add brackets and braces.
Teacher Input	<p>The teacher will ask students how they think that they might use brackets and braces to help them evaluate expressions.</p> <p>The teacher will show students the smart board lesson. The teacher will tell students that they will evaluate things in the parentheses first (). Then they will evaluate the items in the brackets []. Lastly students will evaluate the items in the braces {}.</p> <p>The teacher will go over the examples step by step in the lesson asking students leading questions?</p> <p>According to PEMAS what should I do first?</p> <p>How do I rewrite my expression now that I have completed the first step?</p> <p>What should I do next?</p> <p>What operation do I do first?</p>

	What operation do I do last?
Guided Practice	<p>Students will come to the smart board to complete steps of the practice problems.</p> <p>Students will come to the board to participate in the smart board race.</p> <p>Students will be in four teams and each team will send a student to the board to compete.</p> <p>When students come to the board they will complete the problem given to them with the answer on the board they will buzz their buzzer to signify they have the answer to the expression.</p>
Independent Practice	Students will complete the Smart Board race on a piece of paper as their team mates participate on the board.
Differentiated Instruction	<p>The teacher will monitor students who are EC to be sure they are getting the correct process.</p> <p>The teacher will be selective in the students that come to compete, so that the competition is fair.</p>
Closure	The teacher will ask students to evaluate the expression $5 \times \{16 - (4 + 2)\} / 2$ on a notecard.
Time Allotment	1 class periods. 1 Hr. per class.

MATERIALS AND RESOURCES

Instructional Materials	Attachments: <ol style="list-style-type: none"> 1. Evaluating expressions with grouping symbols.notebook 2. Evaluating Expressions.notebook
Resources	

REFLECTION

Author's comments and reflection	
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