

# ISLP Lesson 2

**Author:** Breanna Seagle

**Date created:** 10/03/2013 11:10 PM EST ; **Date modified:** 10/11/2013 3:21 PM EST

## PLANNING

<b>Essential Question</b>	How do I use the order of operations to help me evaluate expressions?
<b>Topic or Unit of Study</b>	Order of operations
<b>Grade/Level</b>	Grade 5
<b>Subject(s)</b>	Mathematics
<b>CT Approval/ Date</b>	

## 21ST CENTURY SKILLS AND TECHNOLOGY TOOLS

<b>Standards</b>	<p><b>NC- North Carolina Essential Standards (2011)</b></p> <p><b>Subject:</b> Information and Technology</p> <p><b>Grade or Concentration:</b> Grade 5</p> <p><b>Strand:</b> Technology as a Tool</p> <p><b>Essential Standard:</b></p> <p>5.TT.1 Use technology tools and skills to reinforce and extend classroom concepts and activities.</p> <p><b>Clarifying Objective:</b></p> <p>5.TT.1.2 Use a variety of technology tools to organize data and information (e.g., word processor, graphic organizer, audio and visual recording, online collaboration tools, etc.).</p> <p><b>Clarifying Objective:</b></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><b>USA- Common Core State Standards (June 2010)</b></p> <p><b>Subject:</b> Mathematics</p> <p><b>Grade:</b> Grade 5</p> <p><b>Domain:</b> Operations and Algebraic Thinking 5.OA</p> <p><b>Cluster:</b> Write and interpret numerical expressions.</p> <p><b>Standard:</b></p> <p>1. Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.</p>
<b>Learning Targets/Objectives</b>	<p>I can evaluate how to use numerical expressions with parenthesis.</p> <p>I will evaluate a numerical expression by using the order of operations.</p>
<b>Technology Tools</b>	<ul style="list-style-type: none"><li>Materials and resources: The teacher will show students the PEMDAS rap song and then show student the PEMDAS power point. Students will solve problems within the power point.</li><li>Technology resources: IE Explorer</li><li>The number of computers required is 1.</li></ul>
<b>Assessment/Rubrics</b>	The teacher will score a practice sheet.

## IMPLEMENTATION

<b>Introduction to Lesson</b>	The teacher will tell students that yesterday we learned about key words for expressions and how to write them. The teacher will tell students that today we are going to learn how to evaluate those expressions that we were working with yesterday.
<b>Teacher Input</b>	<p>The teacher will ask students if they have ever heard of PEMDAS before. (Most students learned this in 4th grade) The teacher will ask students what each part stands for.</p> <p>What does the P stand for? (Parenthesis)</p> <p>What does the E stand for? (Exponents)</p> <p>What does the M stand for? (Multiply)</p>

	<p>What does the D stand for? (Divide)</p> <p>What does the A stand for? (Add)</p> <p>What does the S stand for? (Subtract)</p> <p>Once we have discussed this the teacher will play the PEMDAS rap.</p> <p>After the rap the teacher will ask students if they can remember what PEMDAS stands for and the order that you must follow is.</p> <p>The teacher will show the power point to students. The teacher will question students thinking during the power point.</p> <p>What do you do first multiplication or division?</p> <p>What do you do first addition or subtraction?</p> <p>The teacher will be sure that students understand multiplication/division and addition/subtraction come at the same time in order from left to right.</p>
<b>Guided Practice</b>	<p>The teacher will facilitate as students come to the board to work through the problems on the smart board.</p> <p>The teacher will ask questions like:</p> <p>What are you going to do first?</p> <p>Why should you do that first?</p> <p>What should you do next?</p> <p>What should my next step be?</p> <p>What will my answer be?</p>
<b>Independent Practice</b>	Students will complete a practice sheet.
<b>Differentiated Instruction</b>	<p>Students who are EC will be given fewer problems and will be pulled to the side to work together on the problems with guidance from the teacher.</p> <p>Students who are ELL will be getting everything they need through the rap song and the visual power point. The teacher will read the instructions to the students.</p> <p>Students who are AIG will be given a practice sheet that contains short answer problems.</p>
<b>Closure</b>	The teacher will ask students to use PEMDAS to solve the expression $4 \times (7 + 3) - 4$ on a note card.
<b>Time Allotment</b>	1 class periods. 1 Hr. per class.

## MATERIALS AND RESOURCES

<b>Instructional Materials</b>	<p>Rap Song- <a href="http://www.flocabulary.com/pemdas/">http://www.flocabulary.com/pemdas/</a></p> <p><b>Attachments:</b></p> <ol style="list-style-type: none"> <li>1. <b>Order of operations ISLP.pdf</b></li> <li>2. <b>order-operations AIG ISLP.pdf</b></li> <li>3. <b>PEMDAS.ppt</b></li> </ol>
<b>Resources</b>	

## REFLECTION

<b>Author's comments and reflection</b>	
---	--