

# ISLP Lesson 1

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## PLANNING

<b>Essential Question</b>	What are the key words in writing and interpreting expressions? How do I write and interpret expressions?
<b>Topic or Unit of Study</b>	Writing and interpreting expressions
<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> <b>Subject:</b> Information and Technology <b>Grade or Concentration:</b> Grade 5 <b>Strand:</b> Technology as a Tool <b>Essential Standard:</b> 5.TT.1 Use technology tools and skills to reinforce and extend classroom concepts and activities. <b>Clarifying Objective:</b> 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> <b>Subject:</b> Mathematics <b>Grade:</b> Grade 5 <b>Domain:</b> Operations and Algebraic Thinking 5.OA <b>Cluster:</b> Write and interpret numerical expressions. <b>Standard:</b> 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 <math>2 \times (8 + 7)</math>. Recognize that <math>3 \times (18932 + 921)</math> is three times as large as <math>18932 + 921</math>, without having to calculate the indicated sum or product.</p>
<b>Learning Targets/Objectives</b>	I can evaluate how to use numerical expressions with parenthesis, brackets, and braces. I will use PEMDAS to accurately interpret expressions.
<b>Technology Tools</b>	<ul style="list-style-type: none"><li>Materials and resources: The teacher will display a smart board lesson on the smart board and have students come up and use the key words to interpret the expression.</li><li>The number of computers required is 1.</li></ul>
<b>Assessment/Rubrics</b>	The teacher will formatively assess the students work as we do the board work. The teacher will check the practice sheet for understanding.

## IMPLEMENTATION

<b>Introduction to Lesson</b>	The teacher will tell students that they have been working with multiplication and division to get them ready for our new unit. The teacher will tell students that in this unit they will be learning about algebraic expressions, number patterns, and graphing. The teacher will tell students that today they will be focusing on writing and interpreting expressions.
<b>Teacher Input</b>	The teacher will tell students that there are some key words that we need to know as we move into algebraic expressions. The teacher will ask students if they can think of any key words.  What key words do you know for addition? (Add, Sum, More Than, etc.)  What key words do you know for subtraction? (How Many More, Left, Change, etc.)  What key words do you know for multiplication? (Array, Multiplies, Product, etc.)  What key words do you know for division? (Each, Share, Half, etc.)

	<p>The teacher will go through the smart board lesson with students to cover the key words. The teacher will pass out the key words for students to cut out and glue into their math notebooks.</p> <p>The teacher will ask students to title the next blank page in their math notebooks "Writing Expressions." On this page students will write the expressions down. The teacher will guide students through the first one.</p> <p>The teacher will remind students of PEMDAS to help them put the operations in the correct order.</p> <p>What does PEMDAS stand for?</p> <p>During the word problem part of the practice the teacher will ask students to find the key words.</p> <p>"Joanne picked 15 more than twice as many apples as her sister. Her sister picked 35 apples."</p> <p>What are the key words in this problem?</p> <p>What operation is it asking me to do?</p>
<b>Guided Practice</b>	The teacher will call students to the board to the smart board to write the expression.
<b>Independent Practice</b>	<p>Students will complete the practice in their notebook as the group does it.</p> <p>Students will independently complete a practice sheet. As students complete this they will underline the key words in the problem.</p>
<b>Differentiated Instruction</b>	<p>Students who are EC will be given fewer problems and have the word problems read aloud. These students will be moved to a separate area in the room to have the problems read aloud.</p> <p>Students who are ELL will have the word problems read aloud. These students will be moved to a separate area in the room to have the problems read aloud.</p> <p>Students who are AIG will be moved on to evaluating expressions using PEMDAS when they are ready. These students sit in AIG grouping and will work together to advance in math.</p>
<b>Closure</b>	<p>The teacher will ask students to write down as many key words for each operation as they can remember on a note card.</p> <p>The teacher will have students discuss in their learning teams the words that they wrote down and to write two things that they do on a daily basis that uses these key words. Students will write this on the back of the notecards.</p>
<b>Time Allotment</b>	1 class periods. 1 Hr. per class.

## MATERIALS AND RESOURCES

<b>Instructional Materials</b>	<p>Practice sheet, math notebook</p> <p><b>Attachments:</b></p> <ol style="list-style-type: none"> <li>1. <b>AIG ISLP Lesson 1.docx</b></li> <li>2. <b>How do I interpret expressions.notebook</b></li> </ol>
<b>Resources</b>	

## REFLECTION

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