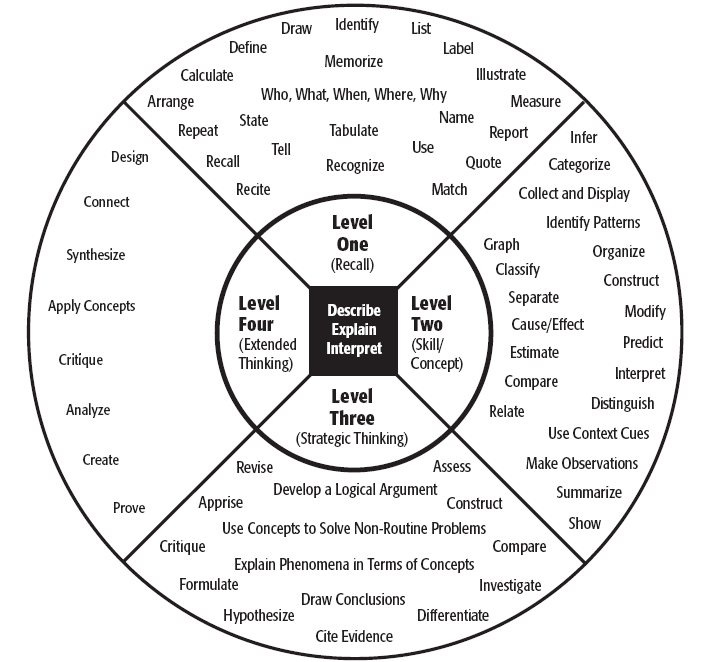
**Algebraic Expressions**

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| Standard(s):  Write, read, and evaluate expressions in which letters stand for numbers. (6.EE.2)  Write expressions that record operations with numbers and with letters standing for numbers. *For example, express the calculation “Subtract y from 5” as 5 – y.* (6.EE.2a)  Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts of an expression as a single entity. *For example, describe the expression 2 8 as a product of two factors; view*  *(8 + 7) as both a single entity and a sum of two terms.* (6.EE.2b) | Instructional Shift(s) and Explanation:  Shift 1 – Focus: Students will be able to read, write, and evaluate algebraic expressions.  Shift 2 – Coherence: Reviewing Order of Operations, teaching vocabulary, and reemphasizing past math skills, e.i. addition, subtraction, multiplication, and division.  Shift 3 – Rigor – Applying algebraic expressions to real world problems. |
| Length of Lesson: 1 hour | EFL’s Targeted: 6th Grade |
| Materials and Resources Needed: Common Core Basics: Mathematics; McGraw-Hill Education  Missing Numbers in Equations (A & B),Translating Algebraic Phrases ( A); Translating English Phrases into Algebraic Expressions; [www.Math-Drills.com](http://www.Math-Drills.com)  Algebra; McGraw-Hill Children’s Publishing, page 21 | |

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| Objective | DOK Level(s) | Activity(ies) | Assessment(s)/Check(s) for Understanding |
| Students will be able to read & write expressions that include letters as whole numbers. | 1 | Instruction/Modeling/Practice | Algebra, page 18 – 1-3 as a class, then remaining problems individually and checked. |
| Students will know basic math vocabulary. | 1 | Vocabulary match. | Vocabulary Review, page 138 |

*\*Objectives should be tied directly to DOK Levels, an activity, and a form of assessment.*

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| Lesson Flow |
| Warm Up/Introduction: Rate the student’s confidence when solving math problems that include letters as whole numbers. “How do you feel about math?/Algebra? 1 -> 5. . The intro “fold a piece of paper in half and write before and after on each side, then rate how you feel about math with the scale 1 – hate;2 – scared; 3 – ok; 4- comfortable; 5 – fun.  Introduction - [www.mathgoodies.com/lessons/vol7/expressions.html](http://www.mathgoodies.com/lessons/vol7/expressions.html) |
| Direct Instruction/Classroom Activities: CCB 5.1 p. 134. Begin with Verbal and Symbolic Representations of Expressions. Work through Examples 1 as a class.  CCB 1.6 Order of Operations Review – pages 36 & 37. Quick review of PEMDAS. Review Examples 1 & 2 as a class. Then have the students complete Think about Math page 37 on their own. Review as a class.  (Optional – Identify Key Words on page 135). Continue working through Examples 2 -6 as a class. Have the class work as individuals to complete Think about Math on page 137. The teacher needs to walk around and assess the student’s progress. Review as a class. Complete Algebra (Grades 7-9) page 18.  Vocabulary: The vocabulary will be introduced throughout the lesson and written on the board. There will be definitions, along with examples. The class then will work together to match the vocabulary with the definition and an example. The vocabulary word will be on a strip of paper. The definition will be on another strip of paper. An example will be on a third strip of paper. The strips of paper will be divided among groups of 2-3. |
| Recommended Strategies: |
| Differentiation options: Higher level learners – Identify Key Words on page 135. Have students work in pairs. |
| Assessments: CCB 5.1 Think about Math, page 137  Order of Operations - Think about Math, page 37 |
| Independent/Distance/Homework Options: Algebra p. 21 |

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&docid=p30Z6fLBnETREM&tbnid=3BiBjse4ExeIOM:&ved=0CAUQjRw&url=http://theteachablemoments.wordpress.com/2012/03/08/dok-is-not-a-verb-and-it-is-not-blooms-taxonomy-in-a-circle/&ei=2VOYU-r5CtLNsQSpn4LgCA&bvm=bv.68693194,d.cWc&psig=AFQjCNEhpUPWlItP8Z9C6ZJLXC_1E7v7uA&ust=1402578252955798)**Lesson Planning Resources**

**Webb’s DOK Levels:**

DOK Level 1: Recall and Reproduction

DOK Level 2: Skills/Concepts

DOK Level 3: Strategic Thinking

DOK Level 4: Extended Thinking

*Every lesson delivered should hit more than one DOK level. For a more detailed explanation of DOK and a comparison to Bloom’s Taxonomy click* [*here*](http://blogs.mtlakes.org/curriculum/files/2012/10/Screen-Shot-2012-10-21-at-4.57.09-PM.png)*.*

**Standards & Instructional Shifts:**

Indiana Adult Education is using the College and Career Readiness Standards for Adults developed by OCTAE. You can access a copy of the standards [here](http://lincs.ed.gov/publications/pdf/CCRStandardsAdultEd.pdf) to assist you in identifying the standards aligned to and the instructional shifts targeted in your lesson plan

**A note about this lesson plan template:**

This lesson plan template was created in 2012 and revised in 2014 to better reflect standards based education and assessment changes. The original was designed by Indiana Adult Education Teachers during a statewide teacher meeting. In addition to identifying the required “components” of a lesson plan, teachers also contributed a list of “characteristics” of good lesson plans: *engaging, fun, visual examples, accommodates for learning styles, clear and concise, flexible within structure, allows for student ownership, includes modifications and adaptations, evokes passion, builds on previous knowledge, and appropriately reflects its audience.*