

# ADULT LITERACY FUNDAMENTAL MATHEMATICS (ALFM)

## Goal Statement

Adult Literacy Fundamental Level Mathematics (ALF-M) will give students a strong foundation of basic skills, concepts, mathematical vocabulary, and problem solving strategies to prepare them to meet personal, career or further academic goals.

The ALF-M levels are six designated levels that range from pre-numeracy to readiness for the Intermediate ABE level. Learning Outcomes for all six levels are categorized as CONCEPTS, OPERATIONS/APPLICATIONS or SKILLS & STRATEGIES FOR LEARNING. The outcomes in each of the six ALF-M levels are cumulative and reflect all the skills encompassed by the previous ALF-M level. In many cases, it is necessary to spiral back to review concepts mastered at previous ALF-M levels.

Students are expected to develop conceptual understanding as well as skills. They are expected to apply the learned mathematical concepts and skills to a variety of problem-solving situations. They are to be encouraged to develop automaticity and estimation skills in order to increase their confidence and competence in mathematics.

## ADULT LITERACY FUNDAMENTAL MATHEMATICS (ALFM) LEVEL 1

Students need to demonstrate competency in these outcomes before progressing to the next level. In assessment, it may be determined that some of the outcomes have already been met. In this case, students will focus on the outcomes which still need to be achieved.

### In Level 1 the student will be able to:

<b>NUMBER &amp; NUMBER OPERATIONS CONCEPTS</b>	<ul style="list-style-type: none"><li>▶ Explain or use examples of keywords:<ul style="list-style-type: none"><li>▶ digit, place value, rounding, estimating, greater than, less than, equal, not equal, odd , even, zero, horizontal, vertical, operation, sum, difference, addition, subtraction, increase , decrease</li></ul></li><li>▶ Identify place value to 100</li><li>▶ Recognize vertical and horizontal format for adding and subtracting</li></ul>
<b>OPERATIONS AND APPLICATIONS</b>	<ul style="list-style-type: none"><li>▶ Read and write digits 0 to 9</li><li>▶ Count to 100</li><li>▶ Read and write whole numbers to 100</li><li>▶ Compare and order whole numbers to 100</li><li>▶ Add whole numbers whose sum is 20 or less without carrying</li><li>▶ Subtract whole numbers that are 20 or less, without borrowing/trading in</li><li>▶ Round whole numbers to the nearest 10</li></ul>

<p><b>PATTERNS, FUNCTIONS &amp; RELATIONS</b> CONCEPTS</p> <p>OPERATIONS AND APPLICATIONS</p>	<ul style="list-style-type: none"> <li>▶ Use and apply patterns (shapes, letter and numbers)</li> <li>▶ Count by 2's; 5's; 10's; up to 100</li> </ul>
<p><b>REAL LIFE APPLICATIONS</b> CONCEPTS</p> <p>OPERATIONS AND APPLICATIONS</p>	<ul style="list-style-type: none"> <li>▶ Recognize coins and their values</li> <li>▶ Show the relationship between manipulatives and numbers to 20</li> <li>▶ Estimate (ex. "It takes me about an hour to get to work in the morning")</li> <li>▶ Use estimation in situations such as transportation and time management (ex. estimating commuting time per day)</li> <li>▶ Apply addition (to 20) to one step word problems in real life situations</li> <li>▶ Apply subtraction (20 or less) to one step word problems in real life situations</li> </ul>
<p><b>GEOMETRY</b> CONCEPTS</p> <p>OPERATIONS AND APPLICATIONS</p>	<ul style="list-style-type: none"> <li>▶ Explain or use examples of keywords: <ul style="list-style-type: none"> <li>▶ Rectangle, square, triangle, circle, perimeter</li> </ul> </li> <li>▶ Identify rectangle, square, triangle, circle</li> </ul>
<p><b>TIME</b> CONCEPTS</p>	<ul style="list-style-type: none"> <li>▶ Recognize am/pm clock notation</li> <li>▶ Recognize common base time units and their relationship to each other (seconds to minutes, etc)</li> </ul>
<p><b>SKILLS &amp; STRATEGIES FOR LEARNING</b></p>	<ul style="list-style-type: none"> <li>▶ Apply logical thinking to math operations</li> <li>▶ Use critical thinking skills</li> <li>▶ Give and receive help in a respectful manner</li> <li>▶ Organize work, with help, for easy access</li> <li>▶ Work independently for short periods of time</li> <li>▶ Receive feedback and respond appropriately</li> <li>▶ Identify personal short-term numeracy goals</li> <li>▶ Ask for help appropriately</li> <li>▶ Recognize personal learning strengths</li> <li>▶ Recognize math anxiety</li> <li>▶ Use strategies to manage math anxiety</li> <li>▶ Locate information in a text book with help</li> <li>▶ Manage frustrations of learning</li> </ul>