

In this program I will develop and apply number sense to solve a variety of real-life problems and to determine if the results are reasonable by:

- 1) Demonstrating an understanding of number meanings and relationships
 - a) Placing numbers between 0 and 1000 on a number line
 - b) Describing fractions as parts of a whole
 - c) Knowing the difference between odd and even numbers
- 2) Recognizing relationships between real-life representations, number names, and symbolic representation of numbers
 - a) Reading and writing whole numbers between 0 and 1000 as numerals
 - b) Reading and writing whole numbers between 0 and 1000 as number words
 - c) Matching a fraction to a picture representation of halves, thirds, and fourths
 - d) Matching a number word to a picture representation of halves, thirds, and fourths
- 3) Representing and using numbers in equivalent forms
 - a) Writing whole numbers between 0 and 1000 in expanded notation (for example: $89 = 80 + 9$)
 - b) Making a model to represent a fractional representation of halves, thirds and fourths
- 4) Using coins and currency:

Expressing equal relationships of coins and currency using pennies, nickels, dimes, quarters, half-dollars, and bills up to \$5.00
- 5) Demonstrating the meaning of operations and the relationships between them
 - a) Explaining that addition joins groups and that subtraction decreases, takes away, finds the difference between numbers
 - b) Using addition to check subtraction problems and vice versa
- 6) Performing the operations of addition, subtraction, multiplication, and division of whole numbers
 - a) Adding, subtracting up to 500; multiplying and dividing single digit whole numbers
 - b) Selecting the correct operation in addition or subtraction to solve one-step word problems involving whole numbers up to 500
 - c) Selecting the appropriate operation in multiplication and division to solve one-step word problems with single digit numbers
- 7) Selecting and using rounding and estimating methods to solve problems
 - a) Rounding whole numbers to tens and hundreds
 - b) Estimating to check the reasonableness of the answer in a one-step word problem involving addition or subtraction of whole numbers
 - c) Using estimation to check the reasonableness of the answer in a one-step word problem involving multiplication and division of whole numbers

I will also be able to apply data collection, data analysis, and probability to interpret, predict, and/or solve real-life problems by:

- 1) Constructing, reading, analyzing, and interpreting tables, charts, and graphs
- 2) Predicting and measuring the likelihood of events
 - a) Collecting and recording, and organizing data from a one-step probability experiment
 - b) Predicting possible, most likely, and least likely outcomes from a one-step probability experiment
 - c) Comparing the outcome of the experiment to the prediction

I will apply algebraic concepts and methods to explore, analyze, or solve problems by:

- 1) Creating and identifying number patterns in order to make predictions
- 2) Extending a pattern using a series of objects

Another skill I will develop is to use geometric properties, relationships, and methods to identify, analyze and solve problems by:

- 1) Identifying basic geometric shapes (triangle, square, rectangle)
- 2) Identifying solid geometric figures (cube, rectangular solid)

Finally, I will be able to apply knowledge of standard measurement to actual situations by:

- 1) Knowing different units of measurement (length, weight, time, liquid measures, area, volume, temperature)
- 2) Comparing units of measurement to determine equal relationships (for example – 2 cups = 1 pint)
- 3) Creating real-life situations in which to apply measurement skills

When I am able to demonstrate the skills listed above most of the time, and score between the 2nd to 3.9th grade level on the math skills assessment, I will receive an ABE I Certificate of Achievement in Math:

Student Signature

Instructor Signature

Date