

MATHEMATICS

Level 2.0 - 3.9 • (Beginning)

Student: _____	ID # _____	Entry Date: _____
Institution: _____		Date Achieved: _____
Site: _____		Instructor(s): _____

PLEASE CHECK CORRESPONDING BOX AS EACH STANDARD IS ACHIEVED.

STANDARD 7

The student shows awareness of ways numbers are represented and used in the real world.

Date: _____ Instructor: _____

Benchmarks:

- 7.1 Associating verbal names, written word names, and standard numerals with whole numbers less than 100;
- 7.2 Understanding the relative size of whole numbers between 0 and 100;
- 7.3 Using objects to represent whole numbers, commonly-used fractions, or mixed numbers and relating these numbers to real-world situations (for example: 1/4 pizza, 1/2 sandwich, 1 and 1/2 pies).

STANDARD 8

The student understands number systems.

Date: _____ Instructor: _____

Benchmarks:

- 8.1 Understanding and applying the concepts of counting by 2, 3, 5, 10, 25, and 50;
- 8.2 Understanding place value for ones, tens, hundreds, tenths, and hundredths;
- 8.3 Classifying numbers as even or odd.

STANDARD 9

The student computes addition and subtractions problems.

Date: _____ Instructor: _____

Benchmarks:

- 9.1 Understanding and explaining the inverse (opposite) relationship of addition and subtraction;
- 9.2 Adding whole numbers to solve real-world problems using appropriate methods of computing, such as manipulatives, mental mathematics, paper and pencil (for example: adding a 1-or 2-digit number to a 2-digit number with and without regrouping, given in vertical and horizontal notation);
- 9.3 Subtracting whole numbers to solve real-world problems using appropriate methods of computing, such as manipulatives, mental mathematics, paper and pencil (for example: subtracting a 1-or 2-digit number from a 2-digit number with and without regrouping, given in vertical and horizontal notation).

STANDARD 10

The student computes multiplication and division problems.

Date: _____ Instructor: _____

Benchmarks:

- 10.1 Understanding and explaining the effect of multiplication on whole numbers;
- 10.2 Identifying multiplication terminology and symbols;
- 10.3 Recalling multiplication facts using a table or memory;
- 10.4 Multiplying a 2-digit number by a 1-digit number with and without regrouping and multiplying three 1-digit numbers;
- 10.5 Understanding and explaining the effect of division on whole numbers;
- 10.6 Identifying division terminology and symbols;
- 10.7 Understanding the inverse relationship between multiplication and division;
- 10.8 Recalling division facts using a table or memory;
- 10.9 Dividing a 2-digit number by a 1-digit number with and without remainders.

STANDARD 11

The student applies math skills in word problem applications.

Date: _____ Instructor: _____

Benchmarks:

- 11.1 Recognizing clue words in choosing operations to be used to solve real-world problems (for example: add, plus, total, sum, subtract, difference, left, remaining, multiply, times, several, divide, each, per);
- 11.2 Explaining the reasoning steps in solving real-world problems by:
 - determining the question;
 - identifying the information given;
 - deciding on the operation;
 - working and checking;
 - making certain the answer is logical;
- 11.3 Recognizing that all math has only four operations: addition, subtraction, multiplication, and division;
- 11.4 Selecting the appropriate operation to solve specific problems involving +, -, x, and ÷.

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STANDARD 12

- The student demonstrates estimation skills.

Date: _____ Instructor: _____

Benchmarks:

- 12.1 Rounding numbers to 10's and 100's;
- 12.2 Using rounding techniques to estimate the solution to a real-world addition or subtraction problem, then determining the actual result through computation.

STANDARD 13

- The student uses units of measurement.

Date: _____ Instructor: _____

Benchmarks:

- 13.1 Identifying the larger of two U.S. measures;
- 13.2 Identifying common units of U.S. measurements for length, capacity, weight, and temperature;
- 13.3 Identifying, selecting, and using appropriate tools from the U.S. system for measuring length, capacity, weight, and temperature;
- 13.4 Telling time on the half hour, quarter hour, and in minutes.

STANDARD 14

- The student demonstrates proficiency in interpreting data.

Date: _____ Instructor: _____

Benchmarks:

- 14.1 Reading a simple bar graph or line graph;
- 14.2 Displaying solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts;
- 14.3 Interpreting data from a chart or a table;
- 14.4 Interpreting data from a diagram.

STANDARD 15

- The student recognizes a wide variety of patterns, relations, and functions.

Date: _____ Instructor: _____

Benchmarks:

- 15.1 Using informal methods to solve real-world problems requiring simple equations that contain one variable;
- 15.2 Recognizing a variety of patterns and relationships using symbols and objects (for example: if the function of $x = 3$, $x + 1 = 4$; if the function of $x = 7$, $x + 1 = 8$);
- 15.3 Recognizing symbols and concepts of equal ($=$), unequal (\neq), less than ($<$), and greater than ($>$);
- 15.4 Identifying the next item of a pattern or a number sequence;
- 15.5 Identifying the missing item of a pattern or a number sequence.

STANDARD 16

- The student describes and identifies two- and three-dimensional shapes.

Date: _____ Instructor: _____

Benchmark:

- 16.1 Identifying and describing the characteristics of basic two- and three-dimensional shapes.

STANDARD 17

- The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.

Date: _____ Instructor: _____

Benchmarks:

- 17.1 Understanding basic concepts of spatial relationships, symmetry, and reflections;
- 17.2 Using objects to perform geometric transformations including flips, slides, and turns.

STANDARD 18

- The student solves money problems.

Date: _____ Instructor: _____

Benchmarks:

- 18.1 Counting coins and currency;
- 18.2 Determining equivalent amounts of up to five dollars using coins and paper currency;
- 18.3 Determining change from a one-dollar bill;
- 18.4 Determining equivalent amounts of up to twenty dollars using coins and paper currency;
- 18.5 Solving real-world problems involving change after purchases with a twenty-dollar bill;
- 18.6 Solving real-world problems involving comparison shopping for purchases of less than ten dollars.

LITERACY COMPLETION POINT B