

Eads Elementary School Math Standards 3rd Grade

MATH STANDARD #1

Students develop number sense and use numbers and number relationships in problem-solving situations and communicate the reasoning used in solving these problems.

Ref.	Expectation	P	PP	NI	US
3.1.a.	Using objects and pictures, represent whole numbers including odds and evens from 0 to 10,000.				
3.1.b.	Apply equalities and inequalities with whole numbers from 0 to 10,000 using the symbols =, <, >.				
3.1.c.	Using concrete materials (eg: fraction strips) compare and order fractions with like denominations, such as halves, thirds, fourths, eighths, and tenths.				
3.1.d.	Demonstrate different combinations of coins for change.				
3.1.e.	Using concrete materials, make change up to \$1.00.				
3.1.f.	Read and write numerals from 0 to 10,000 in meaningful contexts.				
3.1.g.	Read and write the number words for selected numbers from zero to one thousand.				
3.1.h.	Order according to place value (eg: given 9 ones, 5 tens, 4 hundreds, and 7 thousands, the student can write the number 7,459).				
3.1.i.	Identify place value through ten thousands.				
3.1.j.	Write four-digit numbers in expanded form.				
3.1.k.	Count forward from any even number by 2's and from any number by 10's and 100's.				
3.1.l.	Use ordinal positions for selected whole numbers greater than thirty-first.				
3.1.m.	Sequence selected whole numbers from 0 to 10,000.				
3.1.n.	Locate and label 1/2's and multiples of 1/4's between whole numbers on the number line.				
3.1.o.	Locate and label a point in the first quadrant of the coordinate plane.				
3.1.p.	Verify the commutative and associative properties of addition and multiplication of whole numbers.				
3.1.q.	Verify the multiplication properties of zero and one with whole numbers.				
3.1.r.	Estimate sums and differences first by rounding to the nearest ten and hundred prior to performing the operation and, then, using the estimate to determine the reasonableness of the solution.				
3.1.s.	Estimate products first by rounding to the nearest ten prior to performing the operation, and then using the estimate to determine the reasonableness of the solution.				

MATH STANDARD #2

Students use algebraic methods to explore, model, and describe patterns and functions involving numbers, shapes, data, and graphs in problem-solving situations and communicate the reasoning used in solving these problems.

Ref.	Expectation	P	PP	NI	US
3.2.a.	Reproduce, extend, create, and describe patterns, such as in common fractions				

	geometric shapes, money, measurement, addition, subtraction, and multiplication facts.				
3.2.b.	Find missing elements of patterns of multiples.				
3.2.c.	Given data, extend a table and plot points on a coordinate plane.				
3.2.d.	Identify a rule using addition or subtraction and solve a problem using the rule.				
3.2.e.	Determine how the change in one variable affects the change in the other by addition or subtraction.				

MATH STANDARD #3:

Students use data collection and analysis, statistics, and probability in problem-solving situations and communicate the reasoning and processes using in solving these problems

Ref.	Expectations	P	PP	NI	US
3.3.a.	Select the appropriate type of graph to use in various problem-solving situations.				
3.3.b.	Collect and display data using surveys, tallies, bar graphs, dot plots, pictographs, or tables.				
3.3.c.	Use a computer to create bar and circle graphs.				
3.3.d.	Use a timeline to display a sequence of events.				
3.3.e.	Determine the median and mode from a data set.				
3.3.f.	Using various displays of data, interpret and draw conclusions.				
3.3.g.	Use survey data to make a prediction from various displays of data.				
3.3.h.	Analyze the results of rolling a number cube.				
3.3.i.	Predict the most likely outcome from spinners.				
3.3.j.	Analyze the fairness of different spinners.				
3.3.k.	Determine the number of outcomes when rolling a number cube.				
3.3.l.	Using manipulatives or pictures, determine the possible combinations of matching a set containing two elements with a set containing three elements.				

MATH STANDARD #4:

Students use geometric concepts, properties, and relationships in problem-solving situations and communicate the reasoning used in solving these problems.

Ref.	Expectation	P	PP	NI	US
3.4.a.	Compare similarities and differences between the concepts of similarity and congruence.				
3.4.b.	Make a pattern by rotating, flipping, and sliding a two-dimensional figure.				
3.4.c.	Identify lines of symmetry of regular hexagons, pentagons, and octagons.				
3.4.d.	Identify points, lines, line segments, and rays.				
3.4.e.	Recognize and identify hexagons, pentagons, and octagons.				
3.4.f.	Classify angles as obtuse, acute, or right.				
3.4.g.	Draw obtuse, acute, and right angles.				
3.4.h.	Compare what is the same and what is different between two-dimensional figures and three-dimensional figures.				
3.4.i.	Draw rectangles and squares on a coordinate plane and identify the vertices				

	with coordinates.				
3.4.j.	Identify cubes, spheres, cylinders, cones, and pyramids.				
3.4.k.	Build cubes (eg: marshmallows and toothpicks) and spheres (eg: soap bubbles).				
3.4.l.	Measure the sides and perimeters of geometric shapes to the nearest half inch and centimeter.				
3.4.m.	Measure the area of geometric figures using nonstandard units.				
3.4.n.	Draw a picture or diagram to solve a problem (eg: draw a number line to locate one-half).				
3.4.o.	Investigate and predict the result of changing the lengths of sides of polygons.				
3.4.p.	Investigate and predict geometric shapes by combining and subdividing groups of pattern blocks.				
3.4.q.	Investigate and predict the geometric figures that result from cutting along a line of symmetry.				

MATH STANDARD #5:

Students use a variety of tools and techniques to measure, apply the results in problem-solving situations, and communicate the reasoning used in solving these problems.

Ref.	Expectations	P	PP	NI	US
3.5.a.	Tell time to the nearest five minutes, using an analog and digital clock.				
3.5.b.	Estimate how long a minute is.				
3.5.c.	Estimate and measure the length of objects.				
3.5.d.	Estimate and measure the perimeter of an object with a string measured in U.S. customary and metric units.				
3.5.e.	Estimate and measure areas using non-standard.				
3.5.f.	Estimate and measure the capacity of a container in cups, pints, quarts, gallons, and liters.				
3.5.g.	Estimate and weigh an object on a balance or scale to the nearest ounce.				
3.5.h.	Measure temperatures in both Fahrenheit and Celsius.				
3.5.i.	Describe the units for measure time, length, area, capacity, and temperature.				
3.5.j.	Know the number of seconds in a minute, hours in a day, days in a month, days in a year, pints in a quart, quarts in a gallon, and centimeters in a meter.				
3.5.k.	Compare objects according to the measurable attributes of length, area, capacity, weight, and temperature.				
3.5.l.	Order objects according to the measurable attributes of length, area, capacity, weight, and temperature.				
3.5.m.	Compare and order various times.				
3.5.n.	Use familiar objects as referents for measurement (eg: width of the index fingernail equals approximately one centimeter; ten pennies weight approximately an ounce.)				
3.5.o.	Select the appropriate units of measurement of time, length, area, capacity, weight, and temperature.				

MATH STANDARD #6:

Students link concepts and procedures as they develop and use computational techniques, including estimation, mental arithmetic, paper-and-pencil, calculators, and computers, in problem-solving situations and communicate the reasoning used in solving these problems

Ref.	Expectations	P	PP	NI	US
3.6.a.	Using concrete materials, demonstrate and verbally explain addition and subtraction of whole numbers with regrouping for up to four-digit numbers.				
3.6.b.	Using concrete materials or pictures, demonstrate multiplication with regrouping of whole numbers.				
3.6.c.	Using concrete materials, demonstrate division of whole numbers with remainders as partitioning of sets.				
3.6.d.	Using paper-and-pencil, demonstrate the inverse relationship of addition and subtraction of whole numbers.				
3.6.e.	Using paper-and-pencil, demonstrate multiplication of whole numbers as repeated addition.				
3.6.f.	Using concrete materials, demonstrate addition and subtraction of proper fractions with common denominators of ten or less.				
3.6.g.	Using coins as models, add and subtract decimals in which sums and differences may exceed \$1.00.				
3.6.h.	Demonstrate understanding of basic multiplication and division facts of 1's, 2's, 3's, 5's, and 10's.				
3.6.i.	Demonstrate automatic recall of basic multiplication facts of 1's, 2's, 3's, 5's, and 10's.				
3.6.j.	Continue automatic recall of basic addition and subtraction facts.				
3.6.k.	Use a multiplication facts table to locate all factors for a particular product.				
3.6.l.	Use estimation techniques, such as front-end rounding, rounding, and compatible numbers (numbers whose sum is 10, 100, 1,000..) before performing operations.				
3.6.m.	Using paper-and-pencil, demonstrate four basic operation of whole numbers including: a) addition and subtraction of four digits ; b) multiplication of two digits by one digit, regrouping included ; c) division of two digits by a one-digit divisor obtaining one-digit quotients.				
3.6.n.	Given a real-world problem-solving situation, use the correct operation (addition or subtraction or multiplication) and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem.				
3.6.o.	Determine from real-world problems whether an estimated or exact sum, difference, or product is acceptable.				

Adopted Spring 2003.