

Eads Elementary School Math Standards 2nd 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
2.1.a.	Using objects and pictures, represent whole numbers from 0 to 1,000.				
2.1.b.	Apply equalities and inequalities with whole numbers from 0 to 1,000 using the symbols =, ′, <, >.				
2.1.c.	Using concrete materials, demonstrate the meanings of fractions, including halves, thirds, fourths, eighths, and tenths of sets and wholes.				
2.1.d.	Demonstrate equivalencies of coins (eg: 5 nickels = 1 quarter).				
2.1.e.	Combine coins up to \$1.00 (eg: 20 cents = 2 dimes = 1 dime + 2 nickels = 4 nickels).				
2.1.f.	Read and write numerals from 0 to 1,000 in meaningful contexts.				
2.1.g.	Read and write the number words for zero to one hundred.				
2.1.h.	Group objects by ones, tens, and hundreds.				
2.1.i.	Order according to place value.				
2.1.j.	Write three-digit numbers in expanded form.				
2.1.k.	Count by 1's, 2's, 5's, and 10's.				
2.1.l.	Count from 1 to 1,000 by 100's.				
2.1.m.	Starting with any whole number less than 1,000, count forward to 1,000.				
2.1.n.	Use ordinal positions for first through thirty-first.				
2.1.o.	Sequence selected whole numbers from 0 to 1,000.				
2.1.p.	Locate and label the halfway point between whole numbers on the number line.				
2.1.q.	Locate and label a point in the first quadrant of the coordinate plane (eg: 4,0)				
2.1.r.	Verify the commutative property of addition of whole numbers.				
2.1.s.	Verify the addition and subtraction properties of zero with whole numbers.				
2.1.t.	Estimate sums and differences 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
2.2.a.	Verbally describe patterns.				
2.2.b.	Create and extend patterns using symbols, such as words and numbers.				
2.2.c.	Find missing elements of a repeating pattern.				

2.2.d.	Match tables and graphs of points on a coordinate plane.				
2.2.e.	Verbally describe the relationship between a graph and a table.				
2.2.f.	Using concrete or pictorial patterns, determine how the change in one variable affects the change in another (eg: how changing the number of hands changes the number of fingers.)				

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
2.3.a.	Design a survey and collect data.				
2.3.b.	Display data using tallies, bar graphs, pictographs, or tables.				
2.3.c.	Transfer the same set of data to different displays (eg: from a table to a bar graph).				
2.3.d.	Interpret and compare data from displays, using the terms 'least often,' 'most often', and 'how much more' or 'how much less.'				
2.3.e.	Use survey data to make predictions about a larger similar population (eg: from a class survey make a prediction about all second graders in the school.)				
2.3.f.	Roll a number cube to generate and record results.				
2.3.g.	Analyze the results (including likely, more likely, less likely, and unlikely outcomes) of spinning a spinner.				
2.3.h.	Recognize if different spinners are fair or unfair.				
2.3.i.	Determine the number of outcomes when spinning a spinner.				
2.3.j.	Using manipulatives or pictures, determine the possible combination of matching a set containing two elements with a different set containing two 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
2.4.a.	Identify congruent figures from a selection of similar figures.				
2.4.b.	Slide, flip, and turn concrete materials such as tangrams and pattern blocks to create and reproduce simple designs.				
2.4.c.	Describe symmetry.				
2.4.d.	Identify lines of symmetry of squares and rectangles.				
2.4.e.	Describe the attributes of circles, triangles, and quadrilaterals such as squares and rectangles.				
2.4.f.	Identify right angles and not-right angles.				
2.4.g.	Recognize the three-dimensional figures: cubes, spheres, cylinders, cones, and pyramids.				
2.4.h.	Draw right angles and not-right angles.				
2.4.i.	Measure the lengths of the sides of triangles, squares, rectangles to the nearest half inch and centimeter.				
2.4.j.	Measure the perimeter of triangles, squares, and rectangles using non-standard and standard units.				

2.4.k.	Draw a picture or diagram to solve a problem (eg: draw a map of the room to show how to get from a desk to the reading area; draw a map of the neighborhood).				
2.4.l.	Investigate and predict which pattern block shapes can be formed from the pattern block triangles.				
2.4.m.	Investigate and predict the geometric shapes 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
2.5.a.	Tell time to the nearest fifteen minutes, using an analog and digital clock.				
2.5.b.	Use AM and PM.				
2.5.c.	Estimate and measure the length of objects to the nearest half inch, foot, yard, centimeter, and meter.				
2.5.d.	Estimate and measure the perimeter of a figure using non-standard and standard units.				
2.5.e.	Estimate and measure the capacity of a container in cups, pints, quarts, and gallons.				
2.5.f.	Estimate and weigh an object on a balance with a non-standard unit and use a scale to measure an object to the nearest pound.				
2.5.g.	Measure temperature to the nearest 2 degrees and 10 degrees F				
2.5.h.	Describe the units for measuring time, length, capacity, weight, and temperature.				
2.5.i.	Know the number of hours in a day, months in a year, inches in a foot, feet in a yard, and cups in a pint.				
2.5.j.	Compare objects according to the measurable attributes of length, capacity, weight, and temperature.				
2.5.k.	Order objects according to the measurable attributes of length, capacity, weight, and temperature.				
2.5.l.	Compare and order various times.				
2.5.m.	Use familiar objects as referents for measurement (eg: a second grader is a little taller than a meter).				
2.5.n.	Select the appropriate units of measurement of time, length, 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
2.6.a.	Using concrete materials, demonstrate and verbally explain addition of whole numbers with regrouping for two-digit numbers.				
2.6.b.	Using concrete materials, demonstrate and verbally explain subtraction of				

	whole numbers without regrouping for two-digit numbers.				
2.6.c.	Using concrete materials or pictures, demonstrate multiplication without regrouping of whole numbers.				
2.6.d.	Using concrete materials or pictures, demonstrate division of whole numbers without remainders as partitioning of sets.				
2.6.e.	Using concrete materials or pictures, demonstrate the inverse relationship of addition and subtraction of whole numbers.				
2.6.f.	Using concrete materials or pictures, demonstrate multiplication of whole numbers as repeated addition.				
2.6.g.	Using concrete materials or pictures, add and subtract halves, thirds, and fourths.				
2.6.h.	Find the total value of coins not to exceed \$1.00.				
2.6.i.	Demonstrate understanding of basic addition and subtraction facts.				
2.6.j.	Demonstrate automatic recall of basic addition and subtraction facts.				
2.6.k.	Use sums on an addition facts table to locate all addends for a particular sum (eg: $7=0+7$, $7=1+6$, ...)				
2.6.l.	Use estimation techniques, such as rounding and compatible numbers (whose sum is 10) before performing operations.				
2.6.m.	Using paper-and-pencil, demonstrate addition of two-digit whole numbers without regrouping.				
2.6.n.	Using paper-and-pencil, demonstrate subtraction of two-digit whole numbers without regrouping.				
2.6.o.	Given a real-world problem-solving situation, use the correct operation and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem.				
2.6.p.	Determine from real-world problems whether an estimated or exact sum or difference is acceptable.				

Adopted Spring 2003.