In Plain Language

Nevada Academic Content Standards in Math

A Guide for Parents
on
K–5
Student Expectancies
In Mathematics

The following information is provided to assist parents in their understanding of the major concepts and skills being taught in mathematics for grades K through 5. This information is not meant to be seen as an all-inclusive document, but gives parents a snapshot of the highlights of student expectancies as they progress through each grade in elementary school.

Kindergarten

Major Skills & Concepts Taught in Kindergarten

1. Counting the number of objects in a group to 20
2. Count forward from any number up to 100 (i.e. 13, 14, 15, 16,…)
3. Comparing the numbers of objects in two groups to determine which is larger (greater than)/ (less than) smaller
4. Ordering numbers to determine which number *is greater than* or *is less than*
5. Learning that addition means to combine, subtraction means to take away
6. Learning that numbers can be broken up in different ways; 7 = 6 + 1; 7= 5 + 2; 7 = 4 + 3
7. Solving word problems using addition or subtraction with numbers up to 10 (using objects or drawings)
8. Identifying and describing shapes as squares, rectangles, circles, triangles, hexagons, cubes, cones, cylinders and spheres
9. Identifying shapes as two or three dimensional

First Grade

Major Skills & Concepts Taught in First Grade

1. Learning the addition and subtraction facts through 20
2. Learning fact families; 5 + 4 = 9, then 9 – 4 = 5
3. Developing automatic recall for adding numbers up to 10 or less and subtracting from numbers up to 10
4. Understanding the Commutative, {4 + 3 = 3 + 4} and Associative Properties for addition [(6 + 2) + 8 = 6 + (8 + 2)] to make computation easier.
5. Understanding place value up to the tens column and write numbers in expanded notation. 27 = 20 + 7   or (2 tens + 7 ones)
6. Comparing numbers using "is less than" < ; is equal to = or "is greater than" >
7. Understanding the meaning of the equal sign.
8. Adding one and two digit numbers together; adding 10 to any number within 100
9. Solving word problems using addition or subtraction with numbers up to 20
10. Ordering objects by their length from shortest to longest
11. Organizing objects into groups and describing why they were put into a group
12. Dividing shapes like rectangles and circles into equal parts; halves and fourths

Second Grade

Major Concepts & Skills Taught in Second Grade

1. Developing automatic recall for adding numbers up to 20 and subtracting from up to 20
2. Understanding place value up to the hundreds column and write numbers in expanded form
   345 = 300 + 40 + 5 (3 hundreds + 4 tens + 5 ones)
3. Adding and subtracting three digit numbers using concrete models, drawings and strategies
4. Solving one and two step word problems using addition/subtraction with numbers up to 100
5. Using standard units of measure (centimeters and inch)
6. Solving word problems involving time and money
7. Solving word problems by using information from a bar graph
8. Dividing shapes like squares, rectangles and circles in to equal parts; halves, thirds, and fourths
9. Drawing pictograph (picture graph) and bar graph to represent up to 4 quantities

Third Grade

Major Concepts & Skills taught in Third Grade

1. Understanding that multiplication is defined as repeated addition; 4 x 3 means 3+3+3+3
2. Understanding that division is defined as repeated subtraction; 12 ÷ 3 means 12–3–3–3–3
3. Developing automatic recall of the multiplication and division facts through 100
4. Multiplying one digit numbers by multiples of 10 (10, 20, 30, …)
5. Rounding numbers to the nearest 10 or 100
6. Solving one and two step word problems using addition, subtraction, multiplication and division
7. Finding areas and perimeters of rectangles and squares and irregular shapes with rectangles by adding areas together
8. Drawing scaled pictures and represent data on a bar graph or pictograph using a scale to show the quantity that one picture represents -such as one square represent 4 cats.

FRACTIONS (halves, thirds, fourths, sixths, eighths)
9. Introducing fractions as part of a whole
10. Locating or plotting a fraction on a number line, i.e. ¼, 2/4, ¾, 4/4, 2 ½
11. Identifying whole numbers as fractions (i.e. 3 = 3/1)
12. Comparing the size of 2 fractions of the same unit; 1/8 vs 1/3; ½ = 2/4

Fourth Grade

<u>Major Concept & Skills Taught in Fourth Grade</u>

1. Adding/subtracting numbers up to 1,000,000 quickly and accurately using a variety of strategies including the standard algorithm
2. Multiplying and dividing multi-digit numbers
3. Solving multi-step problems using the add, subtract, multiply and divide
4. Drawing and identifying parallel and perpendicular lines
5. Drawing and identifying angles as acute, right, or obtuse
6. Drawing and identifying right triangles

FRACTIONS (halves, thirds fourths, fifths, sixths, eighths, tenths, twelfths, and hundredths DECIMALS

7. Making equal fractions by multiplying by 1 in the form of a fraction (i.e. 3/3— ; $\frac{1}{2} = \frac{3}{6}$ because

   $\frac{1}{2} x \frac{3}{3} = \frac{3}{6}$
8. Adding/subtracting fractions with common denominators
9. Multiplying a fraction by a whole number
10. Converting fractions with denominators of 10 or 100 to decimals
11. Locating decimals on a number line
12. Comparing decimals using <, =, or >

Fifth Grade

<u>Major Concepts & Skills Taught in Fifth Grade</u>

1. Multiplying multi-digit whole numbers, using a variety of strategies including the standard algorithm
2. Dividing up to 4 numbers by 2 numbers 1284 ÷ 23, using a variety of strategies
3. Using exponential notation to write powers of 10; 10^1, 10^2, 10^3, …
4. Identifying and describe numerical patterns; 3, 8, 13, …
5. Converting measurement within a given system; 1 yard = 3 feet or 36 inches
6. Finding volumes of prisms
7. Graphing points on the Rectangular Coordinate System (x-y axes)
8. Classifying two dimensional figure by properties

FRACTIONS/DECIMALS
9. Reading, writing and comparing decimals
10. Adding, subtracting, multiplying and dividing decimals
11. Adding/subtracting fractions with unlike denominators
12. Multiplying and dividing fractions and mixed numbers
13. Writing decimals in expanded notation; 23.45 is 2(10) + 3(1) + 4(0.1) + 5(0.01)
14. Solving multi-step word problems using the different number sets