Grade 6 Math
Assessment Items by Quarter
2004-05

"S" following an indicator means it is a state assessed item. "SN" following an indicator means it is non-calculator state assessed item.

1st quarter

Standard-Indicator

1-1 **S** compare and order: integers; decimals greater than or equal to zero through thousandths place

1-3 **S** estimate to check whether or not the result of a real-word problem using rational numbers is reasonable and make predictions based on the information

2-1 **SN** perform and explain these computational procedures: divide whole numbers through a 2-digit divisor and a 4-digit dividend and express the remainder as a whole number, fraction, or decimal

2-2 **S** generate and / or solve one and two-step real-world problems with rational numbers using these computational procedures: addition, subtraction, multiplication, and division of decimals through hundredths place

2-3 add and subtract integers

3-1 **S** state the rule to find the next number of a pattern with one operational change (addition, subtraction, multiplication, division) to move between consecutive terms

3-4 **S** recognize and examine linear relationships using various methods including mental math, paper and pencil, concrete objects, and graphing utilities or appropriate technology

5-1 **S** list all possible outcomes of an experiment or simulation with a compound event composed of two independent events in a clear and organized way

5-2 **S** represent the probability of a simple event in an experiment or simulation using fractions and decimals

2nd quarter

1-1 **S** compare and order: fractions greater than or equal to zero

2-1 **SN** perform and explain these computational procedures: add, subtract, and multiply fractions (including mixed numbers) expressing answers in simplest form

3-5 **S** select a mathematical model and justify why some mathematical models are more accurate than other mathematical models in certain situations

3-6 know, explain, and use Venn diagrams to sort data and show relationships

5-3 determine mean, median, mode, and range for: a whole number data set; a decimal data set with decimals greater than or equal to zero

5-4 use data analysis (mean, median, mode, range) of a whole number data set or a decimal data set with decimals greater than or equal to zero to make reasonable inferences, predictions, and decisions to develop convincing arguments from these data displays:

a. graphs using concrete objects
b. frequency tables and plots
c. bar, line, and circle graphs
d. Venn diagrams or other pictorial displays
e. charts and tables
f. single stem-and-leaf plots

3rd quarter

1-2 **S** know and explain numerical relationships between percents, decimals, and fractions between 0 and 1

1-3 **SN** estimate to check whether or not the result of a real-world problem using rational numbers and / or the irrational number pi is reasonable and make predictions based on the information

3-2 **S** represent real-world problems using variables and symbols to write and/or solve one-step equations (addition subtraction, multiplication, and division)

3-3 know and use the relationship between ratios, proportions, and percents and find the missing term in simple proportions where the missing term is a whole number

4-1 **S** classify: angles as right, obtuse, acute, or straight; triangles as right, obtuse, acute, scalene, isosceles, or equilateral

4-2 recognize that the sum of the angles of a triangle equals 180 degrees

4-5 select, explain the selection of, and use measurement tools, units of measure, and level of precision appropriate for a given situation to find accurate rational number representations for length, weight, volume, temperature, time, perimeter, area, and angle measurements

4-6 recognize and state perimeter and area formulas for squares, rectangles, and triangles: given measurement formulas to find perimeter and area of squares and rectangles; given figures derived from squares and/or rectangles

4-7 **S** solve real-world problems by applying these measurement formulas: perimeter of polygons; area of squares, rectangles, and triangles

4-8 **S** convert within the metric system

4-9 **S** estimate to check whether or not measurements and calculations for length, width, weight, volume, temperature, time, perimeter, and area in real-world problems are reasonable and adjusts original measurement of estimation based on additional information (a frame of reference)

4-10 **S** identify, describe, and perform one or two transformations (reflection, rotation, translation) on a two-dimensional figure

4th quarter

3-7 solves: one-step linear equations (addition, subtraction, multiplication, division) with one variable and whole number solutions, e.g. $2x = 8$ or $x + 7 = 12$; one step linear inequalities (addition, subtraction) in one variable with whole numbers, e.g. $x - 5 < 12$; $x < 17$

4-3 identify and define circumference, radius, and diameter of circles and semicircles

4-4 determine the radius or diameter of a circle given one or the other

4-11 represent, generate, and/or solve real-world problems using a number line and integers

4-12 represent and/or generate real-world problems using a coordinate plane to find: the perimeter of squares and rectangles; the area of triangles, squares, and rectangles