

**2011 Mathematics Test Standard and Performance Indicator Map
Grade 4**

Question	Type	Points	Strand	Content Performance Indicator
Book 1				
1	Multiple Choice	1	Number Sense and Operations	4.N03 Compare and order numbers to 10,000
2	Multiple Choice	1	Measurement	4.M02 Use a ruler to measure to the nearest standard unit (whole, 1/2 and 1/4 inches, whole feet, whole yards, whole centimeters, and whole meters)
3	Multiple Choice	1	Number Sense and Operations	4.N02 Read and write whole numbers to 10,000
4	Multiple Choice	1	Algebra	4.A02 Use the symbols $<$, $>$, $=$, and \neq (with and without the use of a number line) to compare whole numbers and unit fractions and decimals (up to hundredths)
5	Multiple Choice	1	Number Sense and Operations	4.N16 Understand various meanings of multiplication and division
6	Multiple Choice	1	Geometry	4.G04 Find the area of a rectangle by counting the number of squares needed to cover the rectangle
7	Multiple Choice	1	Number Sense and Operations	4.N01 Skip count by 1,000's
8	Multiple Choice	1	Number Sense and Operations	4.N11 Read and write decimals to hundredths using money as a context
9	Multiple Choice	1	Number Sense and Operations	4.N18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping)
10	Multiple Choice	1	Number Sense and Operations	4.N20 Develop fluency in multiplying and dividing multiples of 10 and 100 up to 1,000
11	Multiple Choice	1	Geometry	4.G01 Identify and name polygons, recognizing that their names are related to the number of sides and angles (triangle, quadrilateral, pentagon, hexagon, and octagon)
12	Multiple Choice	1	Number Sense and Operations	4.N05 Recognize equivalent representations for numbers up to four digits and generate them by decomposing and composing numbers
13	Multiple Choice	1	Number Sense and Operations	4.N17 Use multiplication and division as inverse operations to solve problems
14	Multiple Choice	1	Number Sense and Operations	3.N15 Compare and order unit fractions (1/2, 1/3, 1/4) and find their approximate locations on a number line

**2011 Mathematics Test Standard and Performance Indicator Map
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
Book 1 (continued)				
15	Multiple Choice	1	Algebra	4.A03 Find the value or values that will make an open sentence true, if it contains $<$ or $>$
16	Multiple Choice	1	Number Sense and Operations	4.N21 Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders)
17	Multiple Choice	1	Geometry	4.G02 Identify points and line segments when drawing a plane figure
18	Multiple Choice	1	Measurement	4.M10 Calculate elapsed time in days and weeks, using a calendar
19	Multiple Choice	1	Number Sense and Operations	4.N16 Understand various meanings of multiplication and division
20	Multiple Choice	1	Number Sense and Operations	4.N10 Develop an understanding of decimals as part of a whole
21	Multiple Choice	1	Geometry	4.G03 Find perimeter of polygons by adding sides
22	Multiple Choice	1	Measurement	4.M03 Know and understand equivalent standard units of length: 12 inches = 1 foot, 3 feet = 1 yard
23	Multiple Choice	1	Statistics and Probability	3.S01 Formulate questions about themselves and their surroundings
24	Multiple Choice	1	Geometry	4.G05 Define and identify vertices, faces, and edges of three-dimensional shapes
25	Multiple Choice	1	Measurement	4.M09 Calculate elapsed time in hours and half hours, not crossing A.M./P.M.
26	Multiple Choice	1	Number Sense and Operations	4.N19 Use a variety of strategies to multiply two-digit numbers by two-digit numbers (with and without regrouping)
27	Multiple Choice	1	Number Sense and Operations	3.N14 Explore equivalent fractions ($\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$)
28	Multiple Choice	1	Measurement	4.M01 Select tools and units (customary and metric) appropriate for the length being measured
29	Multiple Choice	1	Number Sense and Operations	4.N13 Develop an understanding of the properties of odd/even numbers as a result of multiplication
30	Multiple Choice	1	Measurement	4.M06 Select tools and units appropriate to the capacity being measured (milliliters and liters)
31	Multiple Choice	1	Algebra	4.A01 Evaluate and express relationships using open sentences with one operation
32	Multiple Choice	1	Statistics and Probability	4.S06 Formulate conclusions and make predictions from graphs
33	Multiple Choice	1	Measurement	4.M04 Select tools and units appropriate to the mass of the object being measured (grams and kilograms)

**2011 Mathematics Test Standard and Performance Indicator Map
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
Book 1 (continued)				
34	Multiple Choice	1	Algebra	4.A05 Analyze a pattern or a whole-number function and state the rule, given a table or an input/output box
35	Multiple Choice	1	Number Sense and Operations	4.N08 Recognize and generate equivalent fractions (halves, fourths, thirds, fifths, sixths, and tenths) using manipulatives, visual models, and illustrations
36	Multiple Choice	1	Number Sense and Operations	4.N07 Develop an understanding of fractions as locations on number lines and as divisions of whole numbers
37	Multiple Choice	1	Number Sense and Operations	4.N22 Interpret the meaning of remainders
38	Multiple Choice	1	Number Sense and Operations	4.N06 Understand, use, and explain the associative property of multiplication
39	Multiple Choice	1	Number Sense and Operations	4.N04 Understand the place value structure of the base ten number system 10 ones = 1 ten 10 tens = 1 hundred 10 hundreds = 1 thousand 10 thousands = 1 ten thousand
40	Multiple Choice	1	Statistics and Probability	4.S04 Read and interpret line graphs
41	Multiple Choice	1	Number Sense and Operations	4.N26 Round numbers less than 1,000 to the nearest tens and hundreds
42	Multiple Choice	1	Number Sense and Operations	4.N09 Use concrete materials and visual models to compare and order unit fractions or fractions with the same denominator (with and without the use of a number line)
43	Multiple Choice	1	Measurement	4.M06 Select tools and units appropriate to the capacity being measured (milliliters and liters)
44	Multiple Choice	1	Statistics and Probability	4.S05 Develop and make predictions that are based on data
45	Multiple Choice	1	Number Sense and Operations	4.N24 Express decimals as an equivalent form of fractions to tenths and hundredths
Book 2				
46	Short Response	2	Number Sense and Operations	4.N18 Use a variety of strategies to multiply two-digit numbers by one-digit numbers (with and without regrouping)
47	Short Response	2	Number Sense and Operations	4.N14 Use a variety of strategies to add and subtract numbers up to 10,000
48	Short Response	2	Algebra	4.A01 Evaluate and express relationships using open sentences with one operation

**2011 Mathematics Test Standard and Performance Indicator Map
Grade 4 (continued)**

Question	Type	Points	Strand	Content Performance Indicator
Book 2 (continued)				
49	Short Response	2	Number Sense and Operations	4.N16 Understand various meanings of multiplication and division
50	Short Response	2	Geometry	4.G01 Identify and name polygons, recognizing that their names are related to the number of sides and angles (triangle, quadrilateral, pentagon, hexagon, and octagon)
51	Short Response	2	Number Sense and Operations	4.N27 Check reasonableness of an answer by using estimation
52	Short Response	2	Number Sense and Operations	4.N21 Use a variety of strategies to divide two-digit dividends by one-digit divisors (with and without remainders)
53	Short Response	2	Measurement	4.M08 Make change, using combined coins and dollar amounts
54	Extended Response	3	Statistics and Probability	4.S05 Develop and make predictions that are based on data
55	Extended Response	3	Geometry	4.G04 Find the area of a rectangle by counting the number of squares needed to cover the rectangle
56	Extended Response	3	Statistics and Probability	4.S03 Represent data using tables, bar graphs, and pictographs
57	Extended Response	3	Algebra	4.A04 Describe, extend, and make generalizations about numeric (+, -, ×, ÷) and geometric patterns