

Nebraska State Accountability - Mathematics (NeSA-M) Table of Specifications

Grade 4

NUMBER SENSE

Gr4 Number System	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.1.1 Students will represent and show relationships among positive rational numbers within the base-ten number system.					
<i>MA 4.1.1.a Read and write numbers through the millions</i>	Assessed at the local level				
<i>MA 4.1.1.b Demonstrate multiple equivalent representations for decimal numbers through the hundredths place</i>	2	0-1	2-3	0	2-4
<i>MA 4.1.1.c Compare and order whole numbers and decimals through the hundredths place</i>	1	2-4	0	0	2-4
<i>MA 4.1.1.d Classify a number as even or odd</i>	Assessed at the local level				
<i>MA 4.1.1.e Represent a fraction as parts of a whole, and/or parts of a set</i>	2	0-1	1-2	0	1-3
<i>MA 4.1.1.f Use visual models to find equivalent fractions</i>	1	1-3	0	0	1-3
<i>MA 4.1.1.g Determine the size of a fraction relative to one half using equivalent forms</i>	Assessed at the local level				
<i>MA 4.1.1.h Locate fractions on a number line</i>	1	1-3	0	0	1-3
<i>MA 4.1.1.i Round a whole number to millions</i>	Assessed at the local level				
Gr4 Operations	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.1.2 Students will demonstrate the meaning of division with whole numbers.					
<i>MA 4.1.2.a Use drawings, words, and symbols to explain the meaning of division</i>	2	0-1	1-2	0	1-3
Gr4 Computation	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
4.1.3 Students will compute fluently and accurately using appropriate strategies and tools.					
<i>MA 4.1.3.a Compute whole number division facts 0-10 fluently</i>	Assessed at the local level				

<i>MA 4.1.3.b Add and subtract decimals to the hundredth place</i>	1	1-2	0	0	1-2
<i>MA 4.1.3.c Multiply two-digit whole numbers</i>	1	1-3	0	0	1-3
<i>MA 4.1.3.d Divide a three-digit number by a one digit divisor with and without a remainder</i>	Assessed at the local level				
<i>MA 4.1.3.e Mentally compute multiplication and division involving powers of 10</i>	1	1-3	0	0	1-3
<i>MA 4.1.3.f Select and apply the appropriate method of computation when problem solving</i>	2	0-1	3-4	0	3-5
Gr4 Estimation	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
4.1.4 Students will estimate and check reasonableness of answers using appropriate strategies and tools.					
<i>MA 4.1.4.a Estimate the three-digit product and the two-digit quotient of whole number multiplication and division and check the reasonableness</i>	Assessed at the local level				
GEOMETRIC/MEASUREMENT CONCEPTS					
Gr4 Characteristics	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.2.1 Students will classify two-dimensional shapes and three-dimensional objects.					
<i>MA 4.2.1.a Identify two- and three-dimensional shapes according to their sides and angle properties</i>	2	0-1	2-3	0	2-4
<i>MA 4.2.1.b Classify an angle as acute, obtuse, and right</i>	2	0-1	1-2	0	1-3
<i>MA 4.2.1.c Identify parallel, perpendicular, and intersecting lines</i>	1	1-2	0	0	1-2
<i>MA 4.2.1.d Identify the property of congruency when dealing with plane geometric shapes</i>	Assessed at the local level				
Gr4 Coordinate Geometry	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.2.2 Students will describe locations using coordinate geometry.					
<i>MA 4.2.2.a Identify the ordered pair of a plotted point in first quadrant by its location</i>	1	1-2	0	0	1-2
Gr4 Transformations	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.2.3 Students will identify simple transformations.					

MA 4.2.3.a Given two congruent geometric shapes, identify the transformation applied to an original shape to create a transformed shape	Assessed at the local level				
Gr4 Spatial Modeling	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.2.4 Students will use geometric models to solve problems.					
MA 4.2.4.a Given a geometric model, use it to solve a problem	Assessed at the local level				
Gr4 Measurement	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.2.5 Students will apply appropriate procedures and tools to estimate and determine measurement using customary units and metric units.					
MA 4.2.5.a Select and use appropriate tools to measure perimeter of polygons	Assessed at the local level				
MA 4.2.5.b Identify time to the minute on an analog clock	2	0-1	1-2	0	1-3
MA 4.2.5.c Solve problems involving elapsed time	2	0-1	1-2	0	1-3
MA 4.2.5.d Identify the appropriate metric unit for measuring length, weight, and capacity/volume	1	2-4	0	0	2-4
MA 4.2.5.e Estimate and measure length using customary and metric units	Assessed at the local level				
MA 4.2.5.f Measure weight and temperature using customary units	Assessed at the local level				
MA 4.2.5.g Compute simple unit conversions for length within a system of measurement	2	0-1	1-2	0	1-3
ALGEBRAIC CONCEPTS					
Gr4 Relationships	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.3.1 Students will represent and analyze relationships.					
MA 4.3.1.a Describe, extend, and apply rules about numeric patterns	Assessed at the local level				
MA 4.3.1.b Represent and analyze a variety of patterns using words, tables, and graphs	Assessed at the local level				
MA 4.3.1.c Use \leq and \geq symbols to compare quantities	2	0-1	1-2	0	1-3
MA 4.3.1.d Select appropriate operational and relational symbols to make a number sentence true	2	0-1	1-2	0	1-3

Gr4 Modeling in Context	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.3.2 Students will create and use models to represent mathematical situations.					
<i>MA 4.3.2.a Model situations that involve the multiplication of whole numbers using number lines and symbols</i>	Assessed at the local level				
<i>MA 4.3.2.b Describe and model quantitative change involving quantitative change involving multiplication</i>	Assessed at the local level				
Gr4 Procedures	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.3.3 Students will identify and apply properties of whole numbers to solve equations involving multiplication and division.					
<i>MA 4.3.3.a Represent the idea of a variable as an unknown quantity using a letter or a symbol</i>	Assessed at the local level				
<i>MA 4.3.3.b Use symbolic representation of the identity property of multiplication</i>	Assessed at the local level				
<i>MA 4.3.3.c Use symbolic representations of the commutative property of multiplication</i>	1	1-3	0	0	1-3
<i>MA 4.3.3.d Solve simple one-step whole number equations</i>	1	2-4	0	0	2-4
<i>MA 4.3.3.e Explain the procedures(s) used in solving simple one-step whole number equations</i>	Assessed at the local level				
DATA ANALYSIS/PROBABILITY CONCEPTS					
Gr4 Display and Analysis	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.4.1 Students will organize, display, compare, and interpret data.					
<i>MA 4.4.1.a Represent data using bar dot/line plots</i>	Assessed at the local level				
<i>MA 4.4.1.b Compare different representations of the same data</i>	2	0-1	1-2	0	1-3
<i>MA 4.4.1.c Interpret data and draw conclusions using dot/line plots</i>	2	0-1	1-2	0	1-3
<i>MA 4.4.1.d Find the mode and range for a set of whole numbers</i>	Assessed at the local level				
<i>MA 4.4.1.e Find the whole number mean for a set of whole numbers</i>	Assessed at the local level				
Gr4 Predictions and Inferences	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.4.2 Students will construct predictions based on data.					

<i>MA 4.4.2.a Make predictions based on data to answer questions from tables and bar graphs</i>	2	0-1	1-2	0	1-3
Gr4 Probability	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
MA 4.4.3 Students will find, describe, and compare experimental probabilities.					
<i>MA 4.4.3.a Perform simple experiments and compare the degree of likelihood</i>	Assessed at the local level				