Nebraska State Mathematics Test Table of Specifications

Grade 4

NUMBER SENSE

Gr4 Number System	DOK Level	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.					
MA 4.1.1.a Read and write numbers through the millions	Assessed at the local level				
MA 4.1.1.b Demonstrate multiple equivalent representations for decimal numbers through the hundredths place	2	0-1	2-3	0	2-4
MA 4.1.1.c Compare and order whole numbers and decimals through the hundredths place	1	2-4	0	0	2-4
MA 4.1.1.d Classify a number as even or odd	Assessed at the local level				
MA 4.1.1.e Represent a fraction as parts of a whole, and/or parts of a set	2	0-1	1-2	0	1-3
MA 4.1.1.f Use visual models to find equivalent fractions	1	1-3	0	0	1-3
MA 4.1.1.g Determine the size of a fraction relative to one half using equivalent forms	Assessed at the local level				
MA 4.1.1.h Locate fractions on a number line	1	1-3	0	0	1-3
MA 4.1.1.i Round a whole number to millions	Assessed at the local level				

Gr4 Operations	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 4.1.2 Students will demonstrate the meaning of division with whole numbers.					
MA 4.1.2.a Use drawings, words, and symbols to explain the meaning of division	2	0-1	1-2	0	1-3

Gr4 Computation	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
4.1.3 Students will compute fluently and accurately using appropriate strategies and tools.					
MA 4.1.3.a Compute whole number division facts 0-10 fluently	Assessed at the local level				
MA 4.1.3.b Add and subtract decimals to the hundredth place	1	1-2	0	0	1-2
MA 4.1.3.c Multiply two-digit whole numbers	1	1-3	0	0	1-3
MA 4.1.3.d Divide a three-digit number by a one digit divisor with and without a remainder	Assessed at the local level				
MA 4.1.3.e Mentally compute multiplication and division involving powers of 10	1	1-3	0	0	1-3

MA 4.1.3.f Select and apply the appropriate method of computation when problem solving	2	0-1	3-4	0	3-5
Gr4 Estimation	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
4.1.4 Students will estimate and check reasonableness of answers using appropriate strategies and tools.					
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	Assessed at the local level				

GEOMETRIC/MEASUREMENT CONCEPTS

Gr4 Characteristics	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
MA 4.2.1 Students will classify two-dimensional shapes and three-dimensional objects.					
MA 4.2.1.a Identify two- and three- dimensional shapes according to their sides and angle properties	2	0-1	2-3	0	2-4
MA 4.2.1.b Classify an angle as acute, obtuse, and right	2	0-1	1-2	0	1-3
MA 4.2.1.c Identify parallel, perpendicular, and intersecting lines	1	1-2	0	0	1-2
MA 4.2.1.d Identify the property of congruency when dealing with plane geometric shapes	Assessed at the local level				
Gr4 Coordinate Geometry	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
MA 4.2.2 Students will describe locations using coordinate geometry.					
MA 4.2.2.a Identify the ordered pair of a plotted point in first quadrant by its location	1	1-2	0	0	1-2
Gr4 Transformations	**DOK Level**	**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	**DOK Level**	**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	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**

	DOK Level	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	DOK Level	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 ≤ and ≥ 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	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 4.3.2 Students will create and use models to represent mathematical situations.					
MA 4.3.2.a Model situations that involve the multiplication of whole numbers using number lines and symbols	Assessed at the local level				
MA 4.3.2.b Describe and model quantitative change involving quantitative change involving multiplication	Assessed at the local level				
Gr4 Procedures	DOK Level	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.					
MA 4.3.3.a Represent the idea of a variable as an unknown quantity using a letter or a symbol	Assessed at the local level				

MA 4.3.3.b Use symbolic representation of the identity property of multiplication	Assessed at the local level				
MA 4.3.3.c Use symbolic representations of the commutative property of multiplication	1	1-3	0	0	1-3
MA 4.3.3.d Solve simple one-step whole number equations	1	2-4	0	0	2-4
MA 4.3.3.e Explain the procedures(s) used in solving simple one-step whole number equations	Assessed at the local level				

DATA ANALYSIS/PROBABILITY CONCEPTS

Gr4 Display and Analysis	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
MA 4.4.1 Students will organize, display, compare, and interpret data.					
MA 4.4.1.a Represent data using bar dot/line plots	Assessed at the local level				
MA 4.4.1.b Compare different representations of the same data	2	0-1	1-2	0	1-3
MA 4.4.1.c Interpret data and draw conclusions using dot/line plots	2	0-1	1-2	0	1-3
MA 4.4.1.d Find the mode and range for a set of whole numbers	Assessed at the local level				
MA 4.4.1.e Find the whole number mean for a set of whole numbers	Assessed at the local level				
Gr4 Predictions and Inferences	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
MA 4.4.2 Students will construct predictions based on data.					
MA 4.4.2.a Make predictions based on data to answer questions from tables and bar graphs	2	0-1	1-2	0	1-3
Gr4 Probability	**DOK Level**	**DOK 1**	**DOK 2**	**DOK 3**	**Item Total**
MA 4.4.3 Students will find, describe, and compare experimental probabilities.					
MA 4.4.3.a Perform simple experiments and compare the degree of likelihood	Assessed at the local level				