

Nebraska State Mathematics Test Table of Specifications

Grade 5

NUMBER SENSE

Gr5 Number System	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.1.1 Students will represent and show relationships among positive rational numbers.					
<i>MA 5.1.1.a Demonstrate multiple equivalent representations for whole numbers and decimals through the thousandths place</i>	2	0-1	2-3	0	2-4
<i>MA 5.1.1.b Compare and order whole numbers, fractions, and decimals through the thousandths place</i>	1	2-4	0	0	2-4
<i>MA 5.1.1.c Identify and name fractions in their simplest form and find common denominators for fractions</i>	1	2-4	0	0	2-4
<i>MA 5.1.1.d Recognize and generate equivalent forms of commonly used fractions, decimals, and percents</i>	2	0-1	2-3	0	2-4
<i>MA 5.1.1.e Classify a number as prime or composite</i>	1	1-2	0	0	1-2
<i>MA 5.1.1.f Identify factors and multiples of any whole number</i>	1	1-2	0	0	1-2
<i>MA 5.1.1.g Round whole numbers and decimals to any given place</i>	Assessed at the local level				
Gr5 Operations	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.1.2 Students will demonstrate the meaning of arithmetic operations with whole numbers.					
<i>MA 5.1.2.a Use words and symbols to explain the meaning of the identity properties for addition and multiplication</i>	Assessed at the local level				
<i>MA 5.1.2.b Use words and symbols to explain the meaning of the commutative and associative properties of addition and multiplication</i>	Assessed at the local level				
<i>MA 5.1.2.c Use words and symbols to explain the distributive property of multiplication over addition</i>	2	0-1	1-2	0	1-3
Gr5 Computation	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.1.3 Students will compute fluently and accurately using appropriate strategies and tools.					
<i>MA 5.1.3.a Add and subtract positive rational numbers</i>	1	2-4	0	0	2-4
<i>MA 5.1.3.b Select, apply, and explain the appropriate method of computation when problem solving</i>	2	0-1	3-4	0	3-5
<i>MA 5.1.3.c Multiply decimals</i>	1	1-3	0	0	1-3

<i>MA 5.1.3.d Divide a decimal by a whole number</i>	1	1-3	0	0	1-3
Gr5 Estimation	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.1.4 Students will estimate and check reasonableness of answers using appropriate strategies and tools.					
<i>MA 5.1.4.a Estimate the sums and differences of positive rational numbers to check the reasonableness of such results</i>	2	0-1	1-2	0	1-3
GEOMETRIC/MEASUREMENT CONCEPTS					
Gr5 Characteristics	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.2.1 Students will describe relationships among two-dimensional shapes and three-dimensional objects.					
<i>MA 5.2.1.a Identify the number of edges, faces, and vertices of triangular and rectangular prisms</i>	1	1-3	0	0	1-3
<i>MA 5.2.1.b Justify congruence of two-dimensional shapes</i>	Assessed at the local level				
<i>MA 5.2.1.c Justify the classification of two-dimensional shapes</i>	Assessed at the local level				
<i>MA 5.2.1.d Identify degrees on a circle</i>	1	1-2	0	0	1-2
Gr5 Coordinate Geometry	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
5.2.2 Students will identify locations using coordinate geometry.					
<i>MA 5.2.2.a Plot the location of an ordered pair in the first quadrant</i>	1	1-2	0	0	1-2
Gr5 Transformations	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.2.3 Students will identify simple transformations.					
<i>MA 5.2.3.a Perform one-step transformations on two-dimensional shapes</i>	Assessed at the local level				
Gr5 Spatial Modeling	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
5.2.4 Students will create and use geometric models to solve problems.					
<i>MA 5.2.4.a Build or sketch a geometric model to solve a problem</i>	Assessed at the local level				
<i>MA 5.2.4.b Sketch congruent shapes</i>	Assessed at the local level				
<i>MA 5.2.4.c Build rectangular prisms using cubes</i>	Assessed at the local level				
Gr5 Measurement	DOK Level	DOK 1	DOK 2	DOK 3	Item Total

MA 5.2.5 Students will apply appropriate procedures, tools, and formulas to determine measurements using customary units and metric units.					
<i>MA 5.2.5.a Select and use appropriate tools to measure perimeter and angles</i>	Assessed at the local level				
MA 5.2.5.b Identify correct unit (customary or metric) to the measurement situation	2	0-1	1-2	0	1-3
<i>MA 5.2.5.c Estimate and measure length with customary units to the nearest 1/4 inch</i>	Assessed at the local level				
<i>MA 5.2.5.d Measure capacity/volume with customary units</i>	Assessed at the local level				
<i>MA 5.2.5.e Measure weight (mass) and temperature using metric units</i>	Assessed at the local level				
MA 5.2.5.f Determine the area of rectangles and squares	2	0-1	1-2	0	1-3
ALGEBRAIC CONCEPTS					
Gr5 Relationships	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.3.1 Students will represent, analyze, and generalize relationships.					
<i>MA 5.3.1.a Describe, extend, apply rules, and make generalizations about numeric and geometric patterns</i>	Assessed at the local level				
<i>MA 5.3.1.b Create and analyze numeric patterns using words, tables, and graphs</i>	Assessed at the local level				
<i>MA 5.3.1.c Communicate relationships using expressions and equations</i>	Assessed at the local level				
Gr5 Modeling in Context	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.3.2 Students will create, use, and compare models representing mathematical situations.					
MA 5.3.2.a Model situations that involve the addition, subtraction, and multiplication of positive rational numbers using words, graphs, and tables	2	0-1	1-2	0	1-3
<i>MA 5.3.2.b Represent a variety of quantitative relationships using tables and graphs</i>	Assessed at the local level				
<i>MA 5.3.2.c Compare different models to represent mathematical situations</i>	Assessed at the local level				
Gr5 Procedures	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.3.3 Students will apply properties of simple positive rational numbers to solve one-step equations.					
<i>MA 5.3.3.a Explain the addition property of equality</i>	Assessed at the local level				

<i>MA 5.3.3.b Use symbolic representations of the associative property</i>	2	0	1-2	0	1-2
<i>MA 5.3.3.c Evaluate numerical expressions by using parentheses with respect to order of operations</i>	1	2-4	0	0	2-4
<i>MA 5.3.3.d Evaluate simple algebraic expressions involving addition and subtraction</i>	2	0	1-2	0	1-2
<i>MA 5.3.3.e Solve one-step addition and subtraction equations involving common positive rational numbers</i>	1	1-2	0	0	1-2
<i>MA 5.3.3.f Identify and explain the properties of equality used in solving one-step equations involving common positive rational numbers</i>	Assessed at the local level				
DATA ANALYSIS/PROBABILITY CONCEPTS					
Gr5 Display and Analysis	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.4.1 Students will organize, display, compare, and interpret data.					
<i>MA 5.4.1.a Represent data using line graphs</i>	2	0	1-2	0	1-2
<i>MA 5.4.1.b Represent the same set of data in different formats</i>	2	0-1	1-2	0	1-3
<i>MA 5.4.1.c Draw conclusions based on a set of data</i>	3	0	0-1	1-2	1-3
<i>MA 5.4.1.d Find the mean, median, mode, and range for a set of whole numbers</i>	Assessed at the local level				
<i>MA 5.4.1.e Generate questions and answers from data sets and their graphical representations</i>	Assessed at the local level				
Gr5 Predictions and Inferences	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.4.2 Students will construct predictions based on data.					
<i>MA 5.4.2.a Make predictions based on data to answer questions from tables, bar graphs, and line graphs</i>	Assessed at the local level				
Gr5 Probability	DOK Level	DOK 1	DOK 2	DOK 3	Item Total
MA 5.4.3 Students will determine theoretical probabilities.					
<i>MA 5.4.3.a Perform and record results of probability experiments</i>	Assessed at the local level				
<i>MA 5.4.3.b Generate a list of possible outcomes for a simple event</i>	1	1-3	0	0	1-3
<i>MA 5.4.3.c Explain the likelihood of an event that can be represented by a number from 0 to 1</i>	1	1-3	0	0	1-3