

# Nebraska State Accountability - Mathematics (NeSA-M)

## Table of Specifications

Grade 5

### NUMBER SENSE

Gr5 Number System	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
<b>MA 5.1.1 Students will represent and show relationships among positive rational numbers.</b>					
<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	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total
<b>MA 5.1.2 Students will demonstrate the meaning of arithmetic operations with whole numbers.</b>					
<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	Highest DOK Level Tested	DOK 1	DOK 2	DOK 3	Item Total

<b>MA 5.1.3</b> Students will compute fluently and accurately using appropriate strategies and tools.					
<i>MA 5.1.3.a</i> Add and subtract positive rational numbers	1	2-4	0	0	2-4
<i>MA 5.1.3.b</i> Select, apply, and explain the appropriate method of computation when problem solving	2	0-1	3-4	0	3-5
<i>MA 5.1.3.c</i> Multiply decimals	1	1-3	0	0	1-3
<i>MA 5.1.3.d</i> Divide a decimal by a whole number	1	1-3	0	0	1-3
<b>Gr5 Estimation</b>	Highest DOK Level Tested	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.1.4</b> Students will estimate and check reasonableness of answers using appropriate strategies and tools.					
<i>MA 5.1.4.a</i> Estimate the sums and differences of positive rational numbers to check the reasonableness of such results	2	0-1	1-2	0	1-3
<b>GEOMETRIC/MEASUREMENT CONCEPTS</b>					
<b>Gr5 Characteristics</b>	Highest DOK Level Tested	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.2.1</b> Students will describe relationships among two-dimensional shapes and three-dimensional objects.					
<i>MA 5.2.1.a</i> Identify the number of edges, faces, and vertices of triangular and rectangular prisms	1	1-3	0	0	1-3
<i>MA 5.2.1.b</i> Justify congruence of two-dimensional shapes	Assessed at the local level				
<i>MA 5.2.1.c</i> Justify the classification of two-dimensional shapes	Assessed at the local level				
<i>MA 5.2.1.d</i> Identify degrees on a circle	1	1-2	0	0	1-2
<b>Gr5 Coordinate Geometry</b>	Highest DOK Level Tested	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>5.2.2</b> Students will identify locations using coordinate geometry.					
<i>MA 5.2.2.a</i> Plot the location of an ordered pair in the first quadrant	1	1-2	0	0	1-2
<b>Gr5 Transformations</b>	Highest DOK Level Tested	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.2.3</b> Students will identify simple transformations.					
<i>MA 5.2.3.a</i> Perform one-step transformations on two-dimensional shapes	Assessed at the local level				

<b>Gr5 Spatial Modeling</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>5.2.4 Students will create and use geometric models to solve problems.</b>					
<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				
<b>Gr5 Measurement</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.2.5 Students will apply appropriate procedures, tools, and formulas to determine measurements using customary units and metric units.</b>					
<i>MA 5.2.5.a Select and use appropriate tools to measure perimeter and angles</i>	Assessed at the local level				
<b>MA 5.2.5.b Identify correct unit (customary or metric) to the measurement situation</b>	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				
<b>MA 5.2.5.f Determine the area of rectangles and squares</b>	2	0-1	1-2	0	1-3
<b>ALGEBRAIC CONCEPTS</b>					
<b>Gr5 Relationships</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.3.1 Students will represent, analyze, and generalize relationships.</b>					
<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				
<b>Gr5 Modeling in Context</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>

<b>MA 5.3.2 Students will create, use, and compare models representing mathematical situations.</b>					
<b>MA 5.3.2.a Model situations that involve the addition, subtraction, and multiplication of positive rational numbers using words, graphs, and tables</b>	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				
<b>Gr5 Procedures</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.3.3 Students will apply properties of simple positive rational numbers to solve one-step equations.</b>					
<i>MA 5.3.3.a Explain the addition property of equality</i>	Assessed at the local level				
<b>MA 5.3.3.b Use symbolic representations of the associative property</b>	2	0	1-2	0	1-2
<b>MA 5.3.3.c Evaluate numerical expressions by using parentheses with respect to order of operations</b>	1	2-4	0	0	2-4
<b>MA 5.3.3.d Evaluate simple algebraic expressions involving addition and subtraction</b>	2	0	1-2	0	1-2
<b>MA 5.3.3.e Solve one-step addition and subtraction equations involving common positive rational numbers</b>	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				
<b>DATA ANALYSIS/PROBABILITY CONCEPTS</b>					
<b>Gr5 Display and Analysis</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.4.1 Students will organize, display, compare, and interpret data.</b>					
<b>MA 5.4.1.a Represent data using line plots</b>	2	0	1-2	0	1-2
<b>MA 5.4.1.b Represent the same set of data in different formats</b>	2	0-1	1-2	0	1-3
<b>MA 5.4.1.c Draw conclusions based on a set of data</b>	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				

<b>Gr5 Predictions and Inferences</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.4.2 Students will construct predictions based on data.</b>					
<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				
<b>Gr5 Probability</b>	<b>Highest DOK Level Tested</b>	<b>DOK 1</b>	<b>DOK 2</b>	<b>DOK 3</b>	<b>Item Total</b>
<b>MA 5.4.3 Students will determine theoretical probabilities.</b>					
<i>MA 5.4.3.a Perform and record results of probability experiments</i>	Assessed at the local level				
<i><b>MA 5.4.3.b Generate a list of possible outcomes for a simple event</b></i>	1	1-3	0	0	1-3
<i><b>MA 5.4.3.c Explain the likelihood of an event that can be represented by a number from 0 to 1</b></i>	1	1-3	0	0	1-3