

Nebraska State Accountability - Alternate Assessment of Mathematics (NeSA-AAM) Tables of Specification

Grade 4

NUMBER SENSE

| Gr4 Number System | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
|--|--------------------------|---------|---------|---------|---------|-------------|
| MA 4.1.1 Students will represent and show relationships among positive rational numbers within the base-ten number system. | | | | | | |
| MA 4.1.1.b <u>General</u> Demonstrate multiple equivalent representations for decimal numbers through the hundredths place <u>Extended</u> <i>Identify representations of whole numbers from 0-20</i> | 3 | 0-1 | 0-1 | 0-2 | 0 | 1-3 |
| MA 4.1.1.c <u>General</u> Compare and order whole numbers and decimals through the hundredths place <u>Extended</u> <i>Compare and order whole numbers 0-20</i> | 4 | 0 | 0-2 | 0-2 | 0-2 | 1-4 |
| MA 4.1.1.e <u>General</u> Represent a fraction as parts of a whole and/or parts of a set <u>Extended</u> <i>Use models to represent halves and fourths as parts of a whole and parts of a set</i> | 3 | 0-1 | 1-2 | 0-1 | 0 | 1-3 |
| MA 4.1.1.f <u>General</u> Use visual models to find equivalent fractions <u>Extended</u> <i>Use models to identify equivalent fractions 1/2 and whole</i> | 3 | 0-1 | 0-1 | 0-1 | 0 | 1-2 |
| Gr4 Operations | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
| MA 4.1.2 Students will demonstrate the meaning of division with whole numbers. | | | | | | |
| MA 4.1.2.a <u>General</u> Use drawings, words, and symbols to explain the meaning of division <u>Extended</u> <i>Represent a number up to 20 in equal sized groups</i> | 4 | 0 | 0-1 | 0-2 | 0-2 | 1-2 |
| Gr4 Computation | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
| MA 4.1.2 Students will compute fluently and accurately using appropriate strategies and tools. | | | | | | |
| MA 4.1.3.b <u>General</u> Add and subtract decimals to the hundredths place <u>Extended</u> <i>Add and subtract single digit numbers</i> | 4 | 0 | 0 | 0-2 | 0-2 | 1-2 |

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| MA 4.1.3.c General Multiply two-digit whole numbers Extended <i>Add equal groups with sums up to 20</i> | 4 | 0 | 0-1 | 0-2 | 0-1 | 1-2 |
| MA 4.1.3.e General Mentally compute multiplication and division involving powers of 10 Extended <i>Use groups of 10 for computation up to 50</i> | 4 | 0 | 0-1 | 0-2 | 0-1 | 1-2 |
| MA 4.1.3.f General Select and apply the appropriate method of computation when problem solving Extended <i>Select the appropriate method of computation (addition and subtraction) when problem solving</i> | 4 | 0 | 0 | 0-2 | 0-2 | 1-3 |

GEOMETRIC/MEASUREMENT CONCEPTS

| Gr4 Characteristics | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
|---|--------------------------|---------|---------|---------|---------|-------------|
| MA 4.2.1 Students will classify two-dimensional shapes and three- dimensional objects. | | | | | | |
| MA 4.2.1.a General Identify two- and three- dimensional shapes according to their sides and angle properties Extended <i>Identify two dimensional shapes (triangle, rectangle)</i> | 3 | 0-1 | 0-1 | 0-2 | 0 | 1-2 |
| MA 4.2.1.b General Classify an angle as acute, obtuse, or right Extended <i>Identify the number of angles/corners of a given shape</i> | 3 | 0 | 0-1 | 0-2 | 0 | 1-2 |
| MA 4.2.1.c General Identify parallel, perpendicular, and intersecting lines Extended <i>Recognize parallel and intersecting lines</i> | 3 | 0-1 | 0-1 | 0-2 | 0 | 1-2 |
| Gr4 Coordinate Geometry | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
| MA 4.2.2 Students will describe locations using coordinate geometry. | | | | | | |
| MA 4.2.2.a General Identify the ordered pair of a plotted point in the first quadrant by its location Extended <i>Determine the distance between two points on a number line</i> | 3 | 0 | 0-1 | 0-2 | 0 | 1-2 |
| Gr4 Measurement | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
| MA 4.2.5 Students will apply appropriate procedures and tools to estimate and determine measurements using customary and metric units. | | | | | | |
| MA 4.2.5.b General Identify time to the minute on an analog clock Extended <i>Identify time to the hour on an analog clock</i> | 3 | 0 | 0-2 | 0-1 | 0 | 1-2 |

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|---|---|-----|-----|-----|---|-----|
| MA 4.2.5.c General Solve problems involving elapsed time Extended <i>Solve problems involving elapsed time to the hour</i> | 3 | 0 | 0-1 | 0-3 | 0 | 1-3 |
| MA 4.2.5.d General Identify the appropriate metric unit for measuring length, weight, and capacity/volume Extended <i>Determine the appropriate tool for measuring length, capacity/volume, and weight</i> | 3 | 0-1 | 0-2 | 0-2 | 0 | 1-3 |
| MA 4.2.5.g General Compute simple unit conversions for length within a system of measurement Extended <i>Identify the length of an object using non-standard units</i> | 3 | 0 | 0-2 | 0-2 | 0 | 1-2 |

ALGEBRAIC CONCEPTS

| Gr4 Relationships | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
|---|--------------------------|---------|---------|---------|---------|-------------|
| MA 4.3.1 Students will represent and analyze relationships. | | | | | | |
| MA 4.3.1.c General Use symbols to compare quantities Extended <i>Use objects and symbols (<, >, =) to compare quantities</i> | 3 | 0-1 | 0-2 | 0-3 | 0 | 1-3 |
| MA 4.3.1.d General Select appropriate operational and relational symbols to make a number sentence true Extended <i>Select appropriate operational symbols (addition and subtraction) to make a number sentence true</i> | 3 | 0-1 | 0-2 | 0-3 | 0 | 1-3 |
| Gr4 Procedures | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
| MA 4.3.3 Students will identify and apply properties of whole numbers to solve equations involving multiplication and division. | | | | | | |
| MA 4.3.3.c General Use symbolic representations of the commutative property of multiplication Extended <i>Identify the commutative property of addition using pictures and models</i> | 4 | 0 | 0-1 | 0-2 | 0-2 | 1-2 |
| MA 4.3.3.d General Solve simple one-step whole number equations Extended <i>Solve simple one-step single digit equations involving addition and subtraction with sums and differences 0-20</i> | 4 | 0 | 0 | 0-2 | 0-2 | 1-2 |

DATA ANALYSIS/PROBABILITY CONCEPTS

| Gr4 Display and Analysis | Highest DOK Stage Tested | Stage 1 | Stage 2 | Stage 3 | Stage 4 | Item Totals |
|---|--------------------------|---------|---------|---------|---------|-------------|
| MA 4.4.1 Students will organize, display, compare, and interpret data. | | | | | | |

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|--|---|---|-----|-----|-----|-----|
| <p>MA 4.4.1.b <u>General</u> Compare different representations of the same data <u>Extended</u> Compare different representations of the same data</p> | 4 | 0 | 0-1 | 0-3 | 0-2 | 1-3 |
| <p>MA 4.4.1.c <u>General</u> Interpret data and draw conclusions using dot/line plots <u>Extended</u> Interpret data on vertical and horizontal bar graphs</p> | 4 | 0 | 0 | 0-2 | 0-2 | 1-3 |