NSCAS–Alternate Achievement Level Descriptors
Mathematics Grade 8

Extended Indicator	Developing	On Track	Advanced
	Developing learners do not yet demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. These results provide evidence that the student may need additional support for academic success at the next grade level.	**On Track** learners demonstrate proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. These results provide evidence that the student will likely be ready for academic success at the next grade level.	**Advanced** learners demonstrate high levels of proficiency in the knowledge and skills necessary at this grade level, as specified in the assessed Nebraska College and Career Ready Standards. These results provide evidence that the student will likely be ready for academic success at the next grade level.
	Students at this level	**Students at this level**	**Students at this level**
MAE 8.N.1.a	Recognize a number as a whole number, fraction, or decimal when given an example.	Identify a number as a whole number, fraction, or decimal.	Determine when a set of numbers has been sorted into correct categories of whole numbers, fractions, or decimals.
MAE 8.N.1.b	Recognize the expanded form of a base number of 2, 3, 4, or 5 with a positive exponent of 2 or 3 when given the equivalent expression.	Identify the expanded form of a base number of 2, 3, 4, or 5 with a positive exponent of 2.	Represent base numbers of 2, 3, 4, or 5 with a positive exponent of 3 in expanded form.
MAE 8.N.1.d	Use a number line from 0 to 1 to order tenths, fifths, fourths, thirds, and halves and compare tenths with tenths, fifths with fifths, fourths with fourths, thirds with thirds, and halves with halves.	Use a number line to order tenths, fifths, fourths, thirds, halves, and whole numbers 1–100 (e.g., order 54 1/4, 54 2/4, 54 3/4; order 71.2, 71.5, 71.6; order 65 1/10, 65 6/10, 65 7/10).	Use a number line to compare tenths, fifths, fourths, thirds, halves, and whole numbers 1–100 (e.g., compare 54 1/4, 54 2/4, 54 3/4; compare 71.2, 71.5, 71.6; compare 65 1/10, 65 6/10, 65 7/10).
MAE 8.N.2.a	Identify the squares of whole numbers 1 and 2.	Identify the squares of whole numbers 3–5 and 10.	Identify the squares of whole numbers 6–9.
MAE 8.N.2.c	Recognize the absolute value of a number shown on a model.	Use a model to identify the absolute value of a number.	Use a model to determine the absolute value represented in an authentic situation.
MAE 8.A.1.a	Recognize the point of intersection for intersecting lines on a coordinate plane when given a visual model, limited to naming the point without determining the coordinate pair. (e.g., What is the point of intersection?).	Identify the point of intersection as the solution for intersecting lines on a coordinate plane when given the definition of a solution and/or a visual model, limited to naming the point without determining the coordinate pair (e.g., Which point is the solution for this set of intersecting lines?).	Identify the solution for intersecting lines on a coordinate plane, limited to naming the point without determining the coordinate pair (e.g., Which point is the solution for this set of intersecting lines?).

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MAE 8.A.1.b	Use substitution to recognize that a given value for a variable makes a two-step, single-operation equation true or not true, limited to addition, subtraction, and multiplication equations where the third term is the variable (e.g., 4 + 2 + n = 7, when n = 1; 12 – 10 – n = 0, when n = 2; 3 × 2 × n = 12, when n = 2).	Use substitution to determine whether a given value for a variable makes a two-step equation true, limited to mixed addition and subtraction equations (e.g., n + 12 – 5 = 15, when n = 8).	Use substitution to identify if a given value for a variable makes a two-step equation true, limited to multiplication and addition or subtraction equations (e.g., 3 × n - 4 = 26, when n =10).
MAE 8.A.2.a	Recognize a two-step, single-operation expression that represents an authentic situation, limited to addition, subtraction, and multiplication (e.g., 4 + 2 + 1; 12 – 5 – 4; 3 × 2 × 2).	Identify a two-step expression with mixed addition and subtraction that represents an authentic situation (e.g., 12 + 2 – 4; 20 – 5 + 9).	Identify a two-step expression with multiplication and addition or subtraction that represents an authentic situation (e.g., 3 × 5 – 2; 6 – 1 × 5).
MAE 8.A.2.b	Given a table, recognize that the rate of change does not change in a proportional relationship.	Given a table, identify the rate of change of a proportional relationship when the ratio table includes the value for the unit rate.	Given a table, determine the rate of change of a proportional relationship when the ratio table does not include the value for the unit rate.
MAE 8.A.2.c	Given a graph of a line that goes through the origin and has two points indicated, recognize the location of a point on the line (e.g., Which point is located at (2, 2)?).	Given a graph of a line that goes through the origin and has two points indicated, identify the x- or y-coordinate of one point on the line (e.g., What is the x-coordinate of point B? or What is the y-coordinate of point B?).	Given a graph of a line that goes through the origin and has two points indicated, identify the x- and y-coordinates of one point on the line (e.g., What is the location of point B?).
MAE 8.G.1.a	Recognize 90 degrees as the missing angle measure in a 45-45-90 triangle or 30-60-90 triangle when given the other two angles and a drawing of the triangle that has the 90-degree angle marked with the right angle symbol.	Recognize 45 degrees as the missing angle measure in a 45-45-90 triangle when given the other two angles and a drawing of the triangle.	Recognize 30 or 60 degrees as the missing angle measure in a 30-60-90 triangle when given the other two angles and a drawing of the triangle.
MAE 8.G.1.b	Recognize a pair of congruent angles in two intersecting lines when given a model.	Identify a pair of congruent angles in two parallel lines cut by a transversal when given an example of the same type of congruent angles, limited to locating but not naming the angles.	Identify a pair of congruent angles in two intersecting lines or in two parallel lines cut by a transversal, limited to locating but not naming the angles.

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MAE 8.G.2.a	Recognize the image of a shape or letter following a reflection when given a visual model of the reflection for the specific shape or letter.	Identify the image of a shape or letter following a reflection when given a definition and/or a visual model of reflection using a different shape or letter.	Identify the image of a shape or letter following a reflection.
MAE 8.G.2.b	Recognize a pair of two-dimensional figures as congruent when given a model of the congruent figures.	Identify a pair of similar figures and a pair of congruent figures when given the definition of similar figures and congruent figures.	Determine whether a pair of figures is congruent or similar.
MAE 8.G.3.c	Recognize the distance between two points on a horizontal or vertical grid line when given a visual model to assist in counting the distance, limited to the first quadrant.	Find the distance between two points on a horizontal line on a coordinate graph, limited to the first quadrant.	Find the distance between two points on a vertical line on a coordinate graph, limited to the first quadrant.
MAE 8.G.3.d	Recognize the cone, cylinder, or sphere that will hold the most when given three cone-shaped containers with either the same base or the same height, three cylinder-shaped containers with either the same base or the same height, or three spheres of different sizes (e.g., Which cylinder could hold the most liquid?).	Identify the cone, cylinder, or sphere that has the greatest volume when given three cone-shaped containers with either the same base or the same height, three cylinder-shaped containers with either the same base or the same height, or three spheres of different sizes and the definition of volume (e.g., Which cylinder has the greatest volume?).	Identify the cone, cylinder, or sphere that has the greatest volume when given three cones, three cylinders, or three spheres of different sizes, that are labeled with base and height dimensions (e.g., Which cylinder has the greatest volume?).
MAE 8.D.2.c	Recognize a line of best fit when given a model of the line of best fit for the same set of data points.	Identify a line of best fit for a set of data points when given a definition of a line of best fit.	Determine a line of best fit for a set of data points.
MAE 8.D.2.d	Recognize a point on a graph that follows a given line of best fit.	Use a line of best fit to predict whether the data will increase, decrease, or stay the same.	Use a line of best fit to make a prediction.