NSCAS–Alternate Achievement Level Descriptors
Mathematics Grade 6

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 6.N.1.a	Recognize one common factor when given the factors of two numbers in a multiplication sentence, limited to 4, 6, 8, 9, 10, 12, 15, and 20.	Identify all the common factors of two numbers when given the factors of the two numbers in a multiplication sentence, limited to 4, 6, 8, 9, 10, 12, 15, and 20.	Identify all the common factors of two numbers when given the factors of the two numbers in an array, limited to 4, 6, 8, 9, 10, 12, 15, and 20.
MAE 6.N.1.c	Recognize an integer on a number line, limited to integers from −10 to 10.	Identify a missing integer on a number line and identify other models of integers using drawings, words, manipulatives, and symbols, limited to integers from −10 to 10.	Identify and label more than one missing integer on a number line, limited to integers from −10 to 10.
MAE 6.N.1.d	Recognize the absolute value of integers −3, −2, −1, 0, 1, 2, and 3 when given a visual model to count the distance from 0 on a number line.	Identify the absolute value of an integer between −10 and 10 when given a number line.	Identify the absolute value of an integer between −10 and 10.
MAE 6.N.1.e	Recognize halves, quarters, and tenths from 0 to 1 on a number line and order integers from 0 to 10 on a number line.	Order halves, quarters, and tenths from 0 to 1 on a number line and order integers from −10 to 0 on a number line.	Compare halves with halves, quarters with quarters, and tenths with tenths from 0 to 1 on a number line and compare integers from −10 to 10 on a number line.
MAE 6.N.2.a	Recognize a visual representation of the given solution of a two-digit number divided by a one-digit number with a remainder.	Divide 11, 21, 31, 41, 51, 61, 71, 81, and 91 by a single-digit whole number in which the quotient is 10 with a remainder of 1 (e.g., 31 ÷ 3 = 10 r1, 71 ÷ 7 = 10 r1). Divide a two-digit number by 2 and 5, limited to quotients with a remainder.	Divide a two-digit number by 3, 4, 6, 7, 8, and 9, limited to quotients with a remainder.

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MAE 6.N.2.b	Recognize the number of halves in 2/2, the number of fourths in 4/4, the number of thirds in 3/3, and the number of tenths in 10/10.	Use a fraction model to divide positive fractions by positive unit fractions with like denominators, limited to halves, fourths, thirds, and tenths and dividends not equal to 1 whole (e.g., 2/3 divided by 1/3, 4/3 divided by 1/3).	Use a fraction model to divide positive fractions by positive non-unit fractions with like denominators, limited to halves, fourths, thirds, and tenths (e.g., 6/3 divided by 2/3, 9/10 divided by 3/10).
MAE 6.N.2.c	Recognize the first step in evaluating two-step numerical expressions involving addition, subtraction, and multiplication.	Evaluate two-step numerical expressions involving addition, subtraction, and multiplication with respect to order of operations, limited to single-digit numbers.	Evaluate numerical expressions that have two or more steps and numbers greater than 9 involving addition, subtraction, and multiplication with respect to order of operations.
MAE 6.R.1.a	Recognize a ratio between two quantities using concrete models and drawings, limited to numbers 1–5.	Identify a ratio between two quantities using concrete models and drawings, limited to at least one quantity greater than 5.	Determine the ratio between two quantities using drawings, limited to at least one quantity greater than 10.
MAE 6.R.1.c	Recognize a visual model that represents the ratios 1/10 and 1/100.	Recognize that 1/10 is equivalent to 10 percent and 1/100 is equivalent to 1 percent using models.	Convert 1/10 and 1/100 to their equivalent percents.
MAE 6.R.1.d	Using a model, convert tenths to decimals. Using a hundreds grid, recognize 50 shaded unit squares as being 50%.	Using a model, convert halves and fourths to decimals. Using a hundreds grid, recognize 25 shaded unit squares as being 25% and 75 shaded unit squares as being 75%.	Using fraction models without grids, identify the corresponding percentages for the fractions 1/4, 1/2, and 3/4.
MAE 6.R.1.e	Solve authentic problems using a 1:1 ratio.	Solve authentic problems using the ratios 1:2, 1:3, and 1:5.	Solve authentic problems using the ratio 1:10.
MAE 6.R.2.f	Recognize the line that represents the values given in a ratio table when given a line on a coordinate grid with data points labeled with the ordered pairs, limited to two or three data points.	Identify the line on a coordinate grid that represents the values given in a ratio table, limited to two or three data points.	Identify the line on a coordinate grid that represents the values given in a ratio table with more than three data points.
MAE 6.A.1.a	Recognize an equivalent expression with one like term, limited to digits 1–9 and one variable (e.g., $3n = 3n$).	Identify equivalent expressions by combining two like terms, limited to digits 1–9 and one variable ($2n + 3n = 5n$).	Identify equivalent expressions by combining more than two like terms, limited to digits 1–9 and one variable (e.g., $3n + 1n + 2n = 6n$).

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MAE 6.A.1.b	Evaluate addition and subtraction expressions when given the positive integer value of a single variable, limited to unknown change and digits 1–9.	Evaluate addition and subtraction expressions when given the positive integer value of a single variable, limited to an unknown start or a two-digit unknown change and to two digits and no regrouping.	Evaluate addition and subtraction expressions involving regrouping or more than two digits when given the positive integer value of a single variable.
MAE 6.A.1.c	Use substitution to recognize that a given value for a variable makes an addition or subtraction equation true or not true, limited to unknown change and digits 1–9.	Use substitution to determine whether a given value for a variable makes an addition or subtraction equation true, limited to digits 1–9 and unknown start. Use substitution to solve multiplication equations, limited to digits 1–5 and 10.	Use substitution to determine whether a given value for a variable makes an addition or subtraction equation true, limited to two-digit numbers. Use substitution to determine whether a given value for a variable makes a multiplication equation true, limited to digits greater than 5.
MAE 6.A.1.d	Add and subtract two decimal numbers without regrouping, limited to sums and minuends 0 through 10.00 and at most two decimal places.	Add and subtract two decimal numbers without regrouping, limited to sums and minuends from 10.01 to 50.00 and at most two decimal places.	Add and subtract two decimal numbers without regrouping, limited to sums and minuends greater than 50.00 and at most two decimal places.
MAE 6.A.1.e	Recognize a solution to an inequality when given a visual stimulus including the inequality and the solution set graphed on a number line from 0 to 10, limited to symbols > or < and whole numbers.	Identify a solution to an inequality when given a visual stimulus including the inequality and the solution set graphed on a number line from 0 to 10, limited to symbols ≥ or ≤ and whole numbers.	Identify a solution to an inequality represented on a number line from 0 to 10 or represent a solution to an inequality on a number line from 0 to 10, limited to whole numbers.
MAE 6.A.2.a	Recognize an addition or subtraction word phrase that matches an input-output box when given the amount of the change.	Identify an addition or subtraction word phrase that matches an input-output box. Identify a multiplication word phrase that matches an input-output box, limited to change factors of ×1,×2, ×5, and ×10.	Identify a multiplication word phrase that matches an input-output box with change factors other than ×1, ×2, ×5, and ×10. Identify a division word phrase that matches an input-output box.
MAE 6.A.2.b	Add and subtract two decimal numbers without regrouping in an authentic problem, limited to sums and minuends 0 through 10.00 and at most two decimal places.	Add and subtract two decimal numbers without regrouping in an authentic problem, limited to sums and minuends from 10.01 to 50.00 and at most two decimal places.	Add and subtract two decimal numbers without regrouping in an authentic problem, limited to sums and minuends greater than 50.00 and at most two decimal places.
MAE 6.A.2.c	Recognize an inequality using the symbols > or < in an authentic situation when given objects or drawings of objects that represent the solution.	Identify an inequality using the symbols > or < that represents a solution to a problem involving an authentic situation.	Identify an inequality using the symbols ≥ or ≤ that represents a solution to a problem involving an authentic situation.

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MAE 6.G.1.a	Recognize a cube, cylinder, cone, rectangular prism, pyramid, and sphere when given a three-dimensional model.	Use three-dimensional models to identify cubes, cylinders, cones, rectangular prisms, pyramids, and spheres.	Use two-dimensional net drawings to identify cubes, cylinders, cones, rectangular prisms, and pyramids.
MAE 6.G.3.a	Recognize a multiplication expression that could be used to represent the area of a rectangle when given the formula to find the area, limited to whole-number side lengths.	Find the area of a rectangle when given the formula to find the area, limited to whole-number side lengths.	Find the area of a rectangle using its whole-number side lengths.
MAE 6.G.3.b	Recognize the surface area of a rectangular prism when given the total number of unit squares in the net of a figure and the definition of surface area.	Find the surface area of a rectangular prism by counting unit squares in a net of the figure when given the definition of surface area.	Find the surface area of a rectangular prism by counting unit squares in a net of the figure.
MAE 6.G.3.c	Recognize a multiplication expression that could be used to represent the volume of a rectangular prism when given the definition of volume and the formula to find the volume, limited to whole-number side lengths.	Use the volume formula to determine the volume of a rectangular prism when given the definition of volume and the formula, limited to whole-number side lengths.	Use the volume formula to determine the volume of a rectangular prism, limited to whole-number side lengths.
MAE 6.D.2.a	Recognize the title, labels, and intervals on a histogram.	Identify quantities on a histogram.	Identify a histogram that matches a data set.
MAE 6.D.2.b	Recognize solutions to problems using information in histograms with 2 intervals (categories) and circle graphs with halves.	Solve problems using information in histograms with 2 intervals (categories) and circle graphs with thirds and fourths.	Solve problems using information in histograms with more than 2 intervals (categories).
MAE 6.D.2.c	Recognize the number that occurs the most in a set of ordered whole-number data.	Identify the mode in a set of ordered whole-number data when given the definition of a mode. Identify the range in a set of ordered whole-number data when given the definition of a range and the subtraction problem needed to identify the range.	Find the mode and range of a set of ordered whole-number data.
MAE 6.D.2.d	Recognize the middle number in a set of ordered whole-number data, limited to data sets with an odd number of values.	Identify the median in an ordered set of whole-number data when given the definition of a median, limited to data sets with an odd number of values.	Find the median of a set of ordered whole-number data.

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MAE 6.D.3.a	Recognize an outcome of a simple event when given a list of possible outcomes.	Identify a list of possible outcomes for a simple event when given the number of total possible outcomes, limited to four possible outcomes.	Identify all possible outcomes for a simple event, limited to four possible outcomes.
MAE 6.D.3.c	Recognize the probability of an event with one possible outcome as always or never.	Identify the probability of an event with up to four possible outcomes as always, sometimes, or never.	Identify the probability of an event with more than four possible outcomes as always, sometimes, or never.