| HSA-ALT GRADE-BAND 3–5 MATHEMATICS PERFORMANCE LEVEL DESCRIPTORS | |
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| **Well Below Proficiency** | ▪ Recognizes common geometric shapes (i.e., squares, circles, triangles)<br>▪ Connects numerals and number words to quantities of objects<br>▪ Recognizes a non-numeric AB pattern<br>▪ Observes the grouping of objects into equal groups<br>▪ Explores visual models representing benchmark fractions<br>▪ Recognizes a line that connects two points<br>▪ Identify quantity by counting objects<br>▪ Recognizes whether a single-digit number is closer to 0 or 10 |
| **Approaches Proficiency** | ▪ Recognizes attributes of two-dimensional shapes<br>▪ Recognizes and recalls the properties of addition and subtraction of whole numbers<br>▪ Recognizes whole numbers on a number line and benchmark fractions from visual models<br>▪ Recognizes a simple numeric pattern<br>▪ Identifies the rule used to create a non-numeric pattern<br>▪ Recognizes that time can be shown on an analog or digital clock; recognizes that a schedule can be used to list the time activities take place<br>▪ Understands the general concept of area as it relates to two-dimensional shapes; understands the general concept of volume as it relates to three-dimensional objects<br>▪ Uses number line to round decimals to nearest whole number<br>▪ Recognizes when a group of objects has been evenly divided into two or more groups<br>▪ Recognizes the *x*-axis and *y*-axis of the Cartesian coordinate system; recognizes the first number of an ordered pair as the *x*-coordinate and the second number of an ordered pair as the *y*-coordinate<br>▪ Uses counting skills to solve problems (e.g., area, perimeter, volume, arithmetic problems) |
| **Meets Proficiency** | ▪ Identifies and sorts two-dimensional shapes; identifies two-dimensional shapes with one or more lines of symmetry<br>▪ Recalls strategies for solving problems involving addition, subtraction, multiplication, and division of whole numbers<br>▪ Uses a number line to represent whole numbers and to add and subtract fractions with like denominators<br>▪ Identifies the rule used to create a numeric pattern<br>▪ Identifies the time shown on an analog or digital clock to the nearest hour or quarter hour; matches the time an activity takes place to the time shown on a clock<br>▪ Identifies the area of a two-dimensional shape; identifies the volume of a three-dimensional object<br>▪ Uses place value to round decimals to the nearest whole number and add and subtract decimals<br>▪ Recognizes multiplication and division facts within 100<br>▪ Recognizes simple units within a system of measurement; recognizes and uses appropriate tools to measure the weight and length of objects<br>▪ Identifies the coordinates of a point in the first quadrant of the Cartesian coordinate system |
| **Exceeds Proficiency** | ▪ Classifies two-dimensional shapes; draws one or more lines of symmetry in two-dimensional shapes<br>▪ Uses properties of operations (e.g., commutative and associative) and strategies (e.g., order of operations) to solve problems involving computations with whole numbers<br>▪ Fluently adds and subtracts fractions with like denominators<br>▪ Generalizes and extends a numeric pattern presented in a table or visual model<br>▪ Identifies the time shown on an analog or digital clock; uses a schedule to identify the time an activity takes place |

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| | ▪ Justifies the appropriate units for area and volume; describes the concept of area and volume; measures area and volume using standard and nonstandard units<br>▪ Rounds decimals to specified place value<br>▪ Uses appropriate strategies to multiply and divide decimals; determines the reasonableness of solutions<br>▪ Fluently multiplies and divides whole numbers and describes their inverse relationship<br>▪ Compares the weights and lengths of objects within the same standard unit of measurement; compares measurements of time<br>▪ Explains how coordinates are used to represent the location of points in the Cartesian coordinate system |

| HSA-ALT GRADE-BAND 6–8 MATHEMATICS PERFORMANCE LEVEL DESCRIPTORS | |
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| **Well Below Proficiency** | ▪ Recognizes common geometric two-dimensional shapes and three-dimensional objects<br>▪ Identifies data listed in order from least to greatest or from greatest to least<br>▪ Recognizes whole numbers up to 20<br>▪ Locates whole numbers on a number line up to 10<br>▪ Recognizes a non-numeric pattern |
| **Approaches Proficiency** | ▪ Recognizes and estimates the location of rational numbers on a number line<br>▪ Recognizes the *x*-axis and *y*-axis of the Cartesian coordinate system; recognizes the first number of an ordered pair as the *x*-coordinate and the second number of an ordered pair as the *y*-coordinate<br>▪ Recognizes a simple numeric pattern and identifies the rule used to create a visual pattern<br>▪ Recognizes and recalls basic properties of geometric shapes<br>▪ Recognizes linear and nonlinear relationships in a graph<br>▪ Recognizes the exponent in an algebraic expression<br>▪ Recalls the measures of central tendencies (i.e., mean, median, mode) of a data set; recalls how to compute the probability of a simple event<br>▪ Recalls fact families to solve for an unknown in an open sentence; recognizes steps in solving algebraic equations in one variable<br>▪ Uses matching skills to solve problems |
| **Meets Proficiency** | ▪ Identifies the location of rational numbers on a number line; compares, orders, and performs computations with rational numbers<br>▪ Identifies the coordinates of a point in the Cartesian coordinate system or the point of intersection between two or more lines<br>▪ Identifies the rule used to create a numeric pattern<br>▪ Identifies the basic properties of geometric shapes; determines whether two shapes are congruent<br>▪ Selects and uses appropriate terminology to describe a linear relationship shown in a graph or table; differentiates between linear and nonlinear relationships in tables and graphs<br>▪ Identifies equivalent expressions involving exponents<br>▪ Determines the measures of central tendencies (i.e., mean, median, mode) of a data set; computes the probability of a simple event<br>▪ Uses fact families to solve for an unknown in an open sentence; identifies and uses strategies to solve algebraic equations in one variable<br>▪ Identifies the line of best fit |
| **Exceeds Proficiency** | ▪ Identifies equivalent forms of rational numbers; fluently performs computations with rational numbers to solve problems<br>▪ Analyzes a linear relationship to determine the slope of a line<br>▪ Generalizes and extends a numeric pattern presented in a table or visual model<br>▪ Recognizes geometric shapes and properties of geometric shapes that are formed by connecting points in a coordinate plane; uses properties to classify different types of polygons<br>▪ Uses the line of best fit to make a prediction about a set of data<br>▪ Proves that expressions involving exponents are equivalent by evaluating the expressions |

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| | ▪ Explains what each measure of central tendency (i.e., mean, median, mode) indicates about a data set; explains how the probability of a simple event was computed<br>▪ Explains how fact families were used to solve for an unknown in an open sentence; justifies steps when solving algebraic equations |

| HSA-ALT GRADE 10 MATHEMATICS PERFORMANCE LEVEL DESCRIPTORS | |
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| **Well Below Proficiency** | ▪ Locates whole numbers, decimals, and benchmark fractions (e.g., one-half, two-thirds, three-fourths) on a number line<br>▪ Uses a number line to add and subtract whole numbers up to 20<br>▪ Identifies and extends a simple numeric or non-numeric pattern<br>▪ Recognizes a plotted point in the first quadrant of the Cartesian coordinate plane |
| **Approaches Proficiency** | ▪ Recognizes a line that connects two points in the Cartesian coordinate plane; identifies the *x*-axis and *y*-axis<br>▪ Selects and uses appropriate terminology to describe a linear relationship shown in a graph or table<br>▪ Recognizes variable and constant terms in an algebraic equation; recognizes and uses fact families to solve for the unknown in an open sentence<br>▪ Recognizes and selects the appropriate term or visual model that represents an expression involving whole number operations and exponents<br>▪ Recognizes whether a correlation exists in a set of data; uses appropriate terminology to describe the correlation<br>▪ Recognizes perfect squares, benchmark fractions, and terminating decimals as rational numbers<br>▪ Recalls the measures of central tendencies (i.e., mean, median, mode) of a data set<br>▪ Solves for unknown involving addition and subtraction<br>▪ Determines the probability of an outcome using words (i.e., likely, unlikely, certain, impossible) |
| **Meets Proficiency** | ▪ Identifies the coordinates of a linear function; identifies the point of intersection between two or more lines<br>▪ Analyzes a linear relationship to determine the slope of a line<br>▪ Recalls the steps in solving linear equations; applies the inverse relationships to solve linear equations with one variable<br>▪ Identifies equivalent expressions involving whole number operations and exponents<br>▪ Identifies the line of best fit that models the trend (if a trend exists)<br>▪ Determines the measures of central tendencies (i.e., mean, median, mode) of a data set<br>▪ Determines the probability of different outcomes given a data generating device |
| **Exceeds Proficiency** | ▪ Recognizes the equation of a line when given two points on the line; recalls how to use the *x*-intercept and *y*-intercept techniques to determine the equation of a line<br>▪ Explains and recognizes the slope of a line as describing constant rate of change<br>▪ Solves linear equations with one variable; justifies the steps used to solve for the unknown<br>▪ Explains and applies the laws of exponents to simplify an algebraic expression<br>▪ Uses the line of best fit to make a prediction about a set of data<br>▪ Identifies and selects repeating decimals as rational numbers; understands that decimals that neither terminate nor repeat are irrational numbers<br>▪ Recognizes and generates equivalent forms of rational numbers; identifies the inverse relationship between square numbers and square roots<br>▪ Explains what each measure of central tendency (i.e., mean, median, mode) indicates about a data set<br>▪ Determines the relationship between the experimental probability and the theoretical probability of an experiment |