

## **MATHEMATICS DESCRIPTOR LINKS TO GENERAL STANDARDS**

The Mathematics Domains and Clusters to which each descriptor is linked are identified in brackets follow each descriptor in the following tables. Use the information below as a key for the abbreviated Domains found in the tables that follow:

A-CED – Create equations that describe numbers or relationships

A-REI – Algebra-Creating Functions and Reasoning with Equations and Inequalities

EE – Expressions and Equations

F – Functions

G – Geometry

G-CO – Geometry-Congruence

MD – Measurement and Data

NBT – Numbers and Operations Base Ten

NF – Numbers and Operations-Fractions

N-RN – Number and Quantity-Real Numbers

NS – The Number System

OA – Operations and Algebraic Thinking

RP – Ratios and Proportions

SP – Statistics and Probability

S-ID – Statistics and Probability-Interpreting Categorical and Quantitative Data

## Mathematics Grade 3

### Third grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:

- Use number of angles or number of sides to describe or identify a figure *[G]*
- Measure the length of an object to the nearest whole unit *[MD]*
- Round two-digit numbers (0-30) to the nearest 10 *[NBT]*
- Identify a unit fraction of a model fraction or use a model to represent a unit fraction *[NF]*
- Solve one-step real-world problems using addition or subtraction with sums/differences within 20 *[OA]*

### Third grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:

- Recognize sides or angles in two dimensional shapes *[G]*
- Identify tools that can be used to measure length *[MD]*
- Identify numbers between 0 and 30 using base ten models *[NBT]*
- Recognize whole and parts of two dimensional figures *[NF]*
- Solve one step real world problems using objects or models to compose or decompose numbers up to 10 *[OA]*

### Third grade students performing at a Level Two on the alternate assessment:

- Identify circles, squares and triangles *[G]*
- Identify the longest/shortest object when given two objects *[MD]*
- Identify numbers between 0 and 10 *[NBT]*
- Recognize a whole and parts in relation to the whole of real-world objects *[NF]*
- Count (up to 5) to solve real-world problems *[OA]*

### Third grade students performing at a Level One on the alternate assessment:

- Identify numbers 1-5 *[NBT]*
- Recognize whole objects *[NF]*
- Count up to 5 *[OA]*

## Mathematics Grade 4

### Fourth grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:

- Create parallel lines and intersecting lines [G]
- Calculate the perimeter of a rectangle with unit markings (each dimension  $\leq 5$ ) [MD]
- Compare whole numbers to 10 using symbols (<,>=) [NBT]
- Identify or create models that are equivalent to one half ( $2/4$ ,  $3/6$ ,  $5/10$ ...) [NF]
- Skip count by 2's, 5's or 10's [OA]

### Fourth grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:

- Identify parallel and intersecting lines [G]
- Differentiate between area and perimeter [MD]
- Identify models that represent less than, greater than or equal [NBT]
- Identify models of one half and one fourth [NF]
- Identify models that represent the sum of two of the same number [OA]

### Fourth grade students performing at a Level Two on the alternate assessment:

- Differentiate between straight lines and curved lines [G]
- Trace the perimeter of a shape [MD]
- Identify the model that shows more [NBT]
- Identify real world objects that represent one half or one whole [N]
- Identify equal groups [OA]

### Fourth grade students performing at a Level One on the alternate assessment:

- Identify a line [G]
- Identify a shape [MD]
- Identify a group [NBT]

## Mathematics Grade 5

### **Fifth grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:**

- Sort two dimensional figures using attributes (angles, number of sides) they have in common *[G]*
- Complete a bar graph, line plot or picture graph when given collected data and graph template *[MD]*
- Identify a model to solve problems involving divisors and quotients (up to 10) *[NBT]*
- Use models to solve addition problems involving fractions (halves, thirds, fourths and tenths) with like denominators with a sum less than or equal to 1. *[NF]*
- Identify and extend numerical addition and subtraction patterns *[OA]*

### **Fifth grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:**

- Identify two-dimensional figures with a common attribute *[G]*
- Read a picture graph , line plot, and bar graph to answer a simple question *[MD]*
- Use models and counting to determine the answer to a real-world division problem *[NBT]*
- Identify models of thirds( $1/3$ .... $3/3$ ), fourths ( $1/4$ ..... $4/4$ ) and tenths ( $1/10$ ... $10/10$ ) *[NF]*
- Extend a modeled numerical pattern that involves an addition rule *[OA]*

### **Fifth grade students performing at a Level Two on the alternate assessment:**

- Identify the largest/smallest two dimensional figure *[G]*
- Identify the category in a bar graph or picture graph with the most or least *[MD]*
- Divide objects (up to 10) into equal groups *[NBT]*
- Identify the model that represents one half, one fourth, and one whole *[NF]*
- Extend AB shape patterns *[OA]*

### **Fifth grade students performing at a Level One on the alternate assessment:**

- Identify a two dimensional figure (line versus shape) *[G]*
- Identify a bar or picture graph *[MD]*
- Identify equal groups *[NBT]*
- Identify the model that represents whole or part *[NF]*

## Mathematics Grade 6

### Sixth grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:

- Determine the area of a composite figure made up of two rectangles by counting unit squares [G]
- Identify an algebraic equation that represents a one-step real-world problem (where the variable does not represent the sum or difference) [EE]
- Determine the distance from zero to a given point on a number line [NS]
- Generate a ratio based on a model or real-world situation [RP]
- Identify the median of a set of ordered data (with an odd number of data points) [SP]

### Sixth grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:

- Determine the area of a rectangle by counting unit squares [G]
- Identify an algebraic equation that represents a real world addition problem where the variable represents the sum [EE]
- Identify a real-world scale that shows an amount less than zero (e.g. number line, thermometer) [NS]
- Identify a model of a given simple ratio [RP]
- Identify the greatest value and least value of a set of ordered data [SP]

### Sixth grade students performing at a Level Two on the alternate assessment:

- Determine the area of a rectangle with one dimension equal to 1 by counting unit squares (e.g.,  $\square\square$ ) [G]
- Identify a numerical equation that represents a modeled real-world addition problem [EE]
- Identify a model of zero [NS]
- Identify a model that represents a 1:1 ratio [RP]
- Identify the object that appears most frequently (mode) in a set of ordered data [SP]

### Sixth grade students performing at a Level One on the alternate assessment:

- Identify a rectangle [G]
- Add one more to a group [EE]
- Identify **one** component of a 1:1 ratio of a given, real-life modeled ratio (ex. shown 1 plate, identify 1 cookie) [RP]
- Identify the group that has more [SP]

## Mathematics Grade 7

### Seventh grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:

- Find the volume, by counting, of a rectangular prism made up of unit cubes with one dimension equal to one [G]
- Solve one-step algebraic equations involving addition or subtraction (where the variable does not represent the sum or difference) [EE]
- Solve multiplication or division problems (with a product to 100 or a divisor up to 10 without remainders) [NS]
- Identify an equivalent ratio in a model or a real-world situation [RP]
- Determine whether an event is impossible, unlikely, likely, and certain [SP]

### Seventh grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:

- Determine the area of a rectangle or composite figure made up of rectangles drawn on a grid [G]
- Solve one-step algebraic equations involving addition or subtraction using models (where the variable does not represent the sum or difference) [EE]
- Solve multiplicative word problems involving 2, 5, and 10 [NS]
- Identify a simple ratio of a given, modeled ratio [RP]
- Identify situations that represent equally likely events [SP]

### Seventh grade students performing at a Level Two on the alternate assessment:

- Determine the area of a rectangle using unit squares [G]
- Solve numeric equations involving addition and subtraction using models [EE]
- Identify a model that represents a real-world multiplication problem [NS]
- Identify a 1:2 ratio of a given, modeled ratio [RP]
- Identify events that are impossible or certain [SP]

### Seventh grade students performing at a Level One on the alternate assessment:

- Sort rectangles based on size [G]
- Add one more and/or take one away from the group [EE]
- *Determine the larger quantity between two groups* [NS]
- Identify one component of a 1:2 ratio of a given, real-life modeled ratio (ex. Show a picture of 1 cup of milk, and 2 cookies) [RP]

- Identify events on a daily schedule [\[SP\]](#)

## Mathematics Grade 8

### **Eighth grade students performing at a Level Four on the alternate assessment, in addition to Level Three skills:**

- Demonstrate understanding of similar figures drawn on a grid (with rotation) *[G]*
- Identify a graph given a ratio relationship displayed in a table *[EE]*
- Describe a relationship between two quantities shown in a scatter plot or line graph *[F]*
- Use models to compare decimals to the hundredths place *[NS]*
- Represent given unorganized data by completing a bar graph or picture graph using a template *[SP]*

### **Eighth grade students performing at a Level Three on the alternate assessment, in addition to Level Two skills:**

- Identify similar figures on a grid without rotation *[G]*
- Locate or identify a point in the first quadrant of a coordinate grid *[EE]*
- Identify a correct statement about a scatter plot or a line graph that shows a relationship between two quantities *[F]*
- Use models to compare decimals to the tenths place *[NS]*
- Identify a bar graph or picture graph that represents given unorganized data *[SP]*

### **Eighth grade students performing at a Level Two on the alternate assessment:**

- Identify similar and congruent circles and squares *[G]*
- Locate or identify a point on a number line *[EE]*
- Identify the topic of information represented in a scatter plot or line graph *[F]*
- Identify the greater decimal using models. *[NS]*
- Sort given unorganized data into two groups *[SP]*

### **Eighth grade students performing at a Level One on the alternate assessment:**

- Match or identify congruent circles and/or squares *[G]*
- Identify a number line when compared to a non-number line (numbers in random order, a cluster of numbers, etc.) *[EE]*
- Sort shapes and/or objects into groups *[SP]*



## High School Mathematics

### High School students performing at a Level Four on the alternate assessment, in addition to Level Three skills:

- Write and solve a one-step algebraic equation representing a real-world situation using any operation [A-CED]
- Interpret the meaning of a point on a line graphed in the first quadrant [A-REI]
- Identify corresponding congruent angles in two similar triangles [G-CO]
- Determine the value of a quantity that is squared (with a base  $>5$ ) or cubed (with a base  $\leq 3$ ) [N-RN]
- Determine the median or the mean from data shown in a frequency table or line plot [S-ID]

### High School students performing at a Level Three on the alternate assessment, in addition to Level Two skills:

- Solve one-step equations involving addition and subtraction representing real-world situations [A-CED]
- Identify the ordered pair of a point plotted in the first quadrant using whole numbers (up to 10) [A-REI]
- Identify corresponding sides in similar rectangles [G-CO]
- Use a model to determine the value of a quantity that is squared (with a base  $\leq 5$ ) [N-RN]
- Identify the [total] size of a population from data shown in a bar graph, line plot, or picture graph [S-ID]

### High School students performing at a Level Two on the alternate assessment:

- Identify an algebraic equation involving addition and subtraction (up to 20) that represents a real-world situation [A-CED]
- Identify the horizontal quantity and the vertical quantity represented in a graph [A-REI]
- Identify regular figures that are similar [G-CO]
- Identify the model with the greater or lesser value when given two models of squared numbers [N-RN]
- Determine the mode from data shown in a bar graph, line plot, or picture graph [S-ID]

### High School students performing at a Level One on the alternate assessment:

- Identify an algebraic equation involving addition (up to 10) that represents a real-world situation [A-CED]
- Identify a quantity represented on a horizontal line [A-REI]
- Match regular figures that are congruent [G-CO]
- Identify the model with the greater or lesser value when given two models [N-RN]