



## 2020+ WY-ALT Assessment Blueprints Grade 3 Mathematics

### Operations and Algebraic Thinking [12-14 Items; 37.5-43.75%]

EE3.OA.1–4	Represent and solve problems.
EE3.OA.5–6	Build the foundations for multiplication and division.
EE3.OA.7	Fluently use math strategies for multiplication and division.
EE3.OA.8	Add/subtract to solve real-world one-step story problems.
EE3.OA.9	Identify arithmetic patterns.

### Numbers and Operations – Fractions [5-7 Items; 15.5-22%]

EE3.NF.1–3	Understand fractions.
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### Measurement and Data [5-7 Items; 15.5-22%]

EE3.MD.2	Identify standard units of measure for mass and liquid.
EE3.MD.3–4	Represent and interpret data.
EE3.MD.5–7	Understand concepts of area.
EE3.MD.8	Build understanding of perimeter.

### Geometry [4-6 Items; 12.5-19%]

EE3.G.1	Recognize shapes.
EE3.G.2	Recognize that shapes can be partitioned into equal areas.

**32 Items in Total**



## 2020+ WY-ALT Assessment Blueprints Grade 4 Mathematics

<b>Operations and Algebraic Thinking [5-7 Items; 15.5-22%]</b>	
EE4.OA.1	Use operations to solve problems.
EE4.OA.2–3	Use operations to solve word problems.
EE4.OA.4	Build understanding of multiplication and division.
EE4.OA.5	Analyze patterns.
<b>Numbers and Operations in Base Ten [5-7 Items; 15.5-22%]</b>	
EE4.NBT.1	Compare numbers to each other based on place value groups.
EE4.NBT.2	Compare 2 whole numbers (<, >, =).
EE4.NBT.3	Round one- and two-digit whole numbers.
EE4.NBT.4	Add and subtract double-digit whole numbers.
EE5.NBT.5–6	Extend understanding of multiplication and division.
<b>Number and Operations – Fractions [8-10 Items; 25-31%]</b>	
EE4.NF.1–2	Extend understanding of fractions.
EE4.NF.3–4	Apply understanding of fractions in relationship to operations on whole numbers.
EE4.NF.5–7	Extend understanding of 10ths and 100ths.
<b>Measurement and Data [5-7 Items; 15.5-22%]</b>	
EE4.MD.1–3	Solve problems involving measurement.
EE4.MD.4.a-b	Represent and interpret data.
EE4.MD.5 & 7	Recognize angles in geometric shapes.
EE4.MD.6	Identify angles as larger and smaller.
<b>Geometry [4-6 Items; 12.5-19%]</b>	
EE4.G.1–2	Identify lines, angles, and properties of shapes.
EE4.G.3	Identify lines of symmetry in simple shapes.

**32 Items in Total**



## 2020+ WY-ALT Assessment Blueprints Grade 5 Mathematics

<b>Operations and Algebraic Thinking [4-6 Items; 12.5-19%]</b>	
EE5.OA.1–2	Write numerical expressions.
EE5.OA.3	Identify and extend numerical patterns.
<b>Numbers and Operations in Base Ten [8-10 Items; 25-31%]</b>	
EE5.NBT.1	Compare numbers to each other based on place value.
EE5.NBT.2	Recognize patterns when multiplying a number by powers of 10.
EE5.NBT.3–4	Understand rounding in the place value system.
EE5.NBT.5–7	Perform operations with whole numbers.
<b>Number and Operations – Fractions [4-6 Items; 12.5-19%]</b>	
EE5.NF.1–2	Develop an understanding of addition and subtraction with fractions.
<b>Measurement and Data [5-7 Items; 15.5-22%]</b>	
EE5.MD.1	Solve measurement problems.
EE5.MD.2	Represent and interpret data.
EE5.MD.3–5	Determine volume of a cube by counting units of measure.
<b>Geometry [5-7 Items; 12.5-22%]</b>	
EE5.G.3–4	Classify two-dimensional figures.

**32 Items in Total**



## 2020+ WY-ALT Assessment Blueprints Grade 6 Mathematics

### Ratios and Proportional Relationships [4-6 Items; 12.5-19%]

EE6.RP.1–3	Demonstrate a simple ratio relationship.
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### The Number System [5-7 Items; 15.5-22%]

EE6.NS.1	Compare relationships between fractions and understand that a number can be expressed as a fraction.
EE6.NS.2	Divide two-digit/three-digit numbers without remainders.
EE6.NS.3	Add, subtract, multiply, and divide whole numbers with decimals up to the hundredths place.
EE6.NS.4	Identify common factors within numbers.
EE6.NS.5	Compare the value of numbers.

### Expressions and Equations [8-10 Items; 25-31%]

EE6.EE.1–2	Evaluate algebraic expressions.
EE6.EE.3–4	Demonstrate understanding of equivalent expressions.
EE6.EE.5–6	Match an equation to a real-world problem in which variables are used to represent numbers.

### Geometry [4-6 Items; 12.5-19%]

EE6.G.1	Demonstrate area.
EE6.G.2	Demonstrate volume.
EE6.G.3	Plot points on a coordinate grid.
EE6.G.4	Identify common three-dimensional shapes.

### Statistics and Probability [4-6 Items; 12.5-19%]

EE6.SP.1	Develop a statistical question.
EE6.SP.2–3	Analyze data with mean, median, mode, and range.
EE6.SP.5	Summarize data distributions on a graph or table.

**32 Items in Total**



## 2020+ WY-ALT Assessment Blueprints Grade 7 Mathematics

### Ratios and Proportional Relationships [5-7 Items; 15.5-22%]

EE7.RP.1–3	Understand how to use ratios to solve problems.
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### The Number System [4-6 Items; 12.5-19%]

EE7.NS.1	Add and subtract fractions with like denominators (halves, thirds, fourths, and tenths) so the solution is less than or equal to one.
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EE7.NS.2	Solve multiplication and division problems involving fractions.
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### Expressions and Equations [6-8 Items; 19-25%]

EE7.EE.1–2	Use The relationship within addition and/or multiplication to illustrate that two expressions are equivalent.
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EE7.EE.3	Solve two-step real-world addition and subtraction equations using positive and negative numbers.
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EE7.EE.4	Use the concept of equality with models to solve addition and subtraction equations.
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### Geometry [5-7 Items; 15.5-22%]

EE7.G.1	Recognize similarities among basic two-dimensional geometric figures.
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EE7.G.2	Draw, model, or trace basic two-dimensional geometric shapes without a model. (circle, triangle, rectangle, square)
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EE7.G.3	Match a two-dimensional shape with a three- dimensional shape that shares an attribute.
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EE7.G.4	Understand area and circumference as these concepts relate to circles.
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EE7.G.5	Understand different types of angles.
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EE7.G.6	Understand the geometric concepts of area, volume, and surface area.
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### Statistics and Probability [4-6 Items; 12.5-19%]

EE7.SP.1	Understand characteristics of sampling.
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EE7.SP.2	Answer a question related to data from an experiment, given a model of data, or from data collected by the student using a random sample.
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EE7.SP.3	Compare two sets of data within a single data display (such as a picture graph, line plot, or bar graph) and make inferences based on the comparison.
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EE7.SP.6	Make predictions regarding the probability of a chance event based on data.
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**32 Items in Total**



## 2020+ WY-ALT Assessment Blueprints Grade 8 Mathematics

### The Number System [3-4 Items; 9-12.5%]

EE8.NS.1	Understand the comparability between fractions and decimals.
EE8.NS.2	Understand the comparability between fractions and decimals.

### Expressions and Equations [8-10 Items; 25-31%]

EE8.EE.1	Know and apply the properties of integer exponents to whole numbers greater than 1.
EE8.EE.2	Understand and use square roots as they relate to small perfect squares up to 100.
EE8.EE.3	Understand and use a number expressed in the form of a single digit times an integer power up to 10 to estimate quantity and size.
EE8.EE.4	Use scientific notation to choose the appropriate expression for very large or very small quantities.
EE8.EE.5	Understand proportional relationships.

### Functions [6-8 Items; 19-25%]

EE8.F.1	Understand that a function is a rule that assigns to each input exactly one output.
EE8.F.5	Describe the functional relationship between two positive quantities by analyzing a linear graph.

### Geometry [6-8 Items; 19-25%]

EE8.G.1	Understand rotation, reflection, and translation in objects and shapes containing angles.
EE8.G.2	Understand the principles of congruency.
EE8.G.3	Understand dilation in objects and shapes containing angles.
EE8.G.5	Understand the relationship among angles within a right triangle, and understand that the angles within any triangle add up to 180°.
EE8.G.7	Understand the basic principles of right triangles.
EE8.G.9	Understand the concept of volume as it relates to cylinders, cones, and spheres.

### Statistics and Probability [4-6 Items; 12.5-19%]

EE8.SP.1&4	Understand associations between two pieces of data and how scatter plots can help convey these associations.
EE8.SP.2	Understand the use of straight lines within scatter plots to suggest a linear association.

**32 Items in Total**

## 2020+ WY-ALT Assessment Blueprints Grade 9-10 Mathematics – pg. 1 of 2

### Number and Quantity [5-7 Items; 15.5-22%]

EEN-RN.1	Solve division problems with remainders using concrete objects.
EEN-Q.1–3	Express quantities to the appropriate precision of measurement.
EEN-CN.2	Use the operations of addition, subtraction, and multiplication with decimals (decimal value $\times$ whole number) in real-world situations using money as the standard units.

### Algebra [4-6 Items; 12.5-19%]

EEA-SSE.1	Match or write an algebraic expression involving one or more operations to represent a given expression with illustrations.
EEA-SSE.2	Calculate equivalent expressions.
EEA-SSE.3	Solve simple one-step equations (multiplication or division) with a variable.
EEA-CED.1	Solve an algebraic expression using one variable.
EEA-REI.10–12	Represent/solve equations graphically.

### Functions [3-4 Items; 9-12.5%]

EEF-IF.1–3	Use the concept of function to solve problems.
EEF-IF.4–6	Interpret rate of change (e.g., higher/lower, faster/slower).
EEF-BF.1	Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change.
EEF-BF.2	Build an arithmetic sequence when provided a linear pattern.
EEF-LE.1–4	Interpret a simple linear function such as $y = mx$ to show functions grow by equal factors over equal intervals.
EEF-LE.5	Indicate the boundaries of a function.

## 2020+ WY-ALT Assessment Blueprints Grade 9-10 Mathematics – pg. 2 of 2

### Geometry [10-12 Items; 31-37.5%]

EEG-CO.1	Recognize the attributes of perpendicular lines, parallel lines, and line segments, angles, and circles.
EEG-CO.4–5	Identify rotations (spin), reflections (flip), and translations (slides).
EEG-CO.6–8	Identify corresponding congruent (the same) parts of shapes.
EEG-CO.12–13	Create geometric figures.
EEG-SRT.4–5	Describe the properties of regular polygons and/or symmetry.
EEG-C.1–3	Understand representations of properties of circles.
EEG-GPE.7	Calculate perimeter and area of squares and rectangles to solve real-world problems.
EEG-GMD.1&3	Make a prediction based on knowledge of volume to identify volume of common containers (cups, pints, gallons, etc.).
EEG-GMD.4	Distinguish between two-dimensional and three-dimensional objects to solve real-world problems.
EEG-MG.1–3	Apply properties of geometric shapes to describe real-life objects.

### Statistics and Probability [4-6 Items; 12.5-19%]

EES-ID.1–2	Construct a simple graph with given data (table, line, pie, bar, or picture) and answer questions about the data.
EES-ID.3	Indicate general trends on a graph or chart.
EES-ID.4	Calculate the mean of a given data set (limit data points to less than five).
EES-ID.8–9	Determine the difference between fact and opinion.
EES-IC.1–2	Predict the likelihood of an event occurring when the outcomes are equally likely to occur.
EES-CP.1–5	Compare/identify when events are independent or dependent.

**32 Items in Total**