### 2019+ WY-ALT Assessment Blueprints
#### Grade 3 Mathematics

**Operations and Algebraic Thinking [15-17 Items; 37.5-42.5%]**
- 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 [7-9 Items; 17.5-22.5%]**
- EE3.NF.1–3: Understand fractions.

**Measurement and Data [7-9 Items; 17.5-22.5%]**
- 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 [6-8 Items; 15-20%]**
- EE3.G.2: Recognize that shapes can be partitioned into equal areas.

**40 Items in Total**
### 2019+ WY-ALT Assessment Blueprints
#### Grade 4 Mathematics

<table>
<thead>
<tr>
<th><strong>Operations and Algebraic Thinking [7-9 Items; 17.5-22.5%]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EE4.OA.1</td>
</tr>
<tr>
<td>EE4.OA.2–3</td>
</tr>
<tr>
<td>EE4.OA.4</td>
</tr>
<tr>
<td>EE4.OA.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Numbers and Operations in Base Ten [7-9 Items; 17.5-22.5%]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EE4.NBT.1</td>
</tr>
<tr>
<td>EE4.NBT.2</td>
</tr>
<tr>
<td>EE4.NBT.3</td>
</tr>
<tr>
<td>EE4.NBT.4</td>
</tr>
<tr>
<td>EE5.NBT.5–6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Number and Operations – Fractions [11-13 Items; 27.5-32.5%]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EE4.NF.1–2</td>
</tr>
<tr>
<td>EE4.NF.3–4</td>
</tr>
<tr>
<td>EE4.NF.5–7</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Measurement and Data [7-9 Items; 17.5-22.5%]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EE4.MD.1–3</td>
</tr>
<tr>
<td>EE4.MD.4.a-b</td>
</tr>
<tr>
<td>EE4.MD.5 &amp; 7</td>
</tr>
<tr>
<td>EE4.MD.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Geometry [5-7 Items; 12.5-17.5%]</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>EE4.G.1–2</td>
</tr>
<tr>
<td>EE4.G.3</td>
</tr>
</tbody>
</table>

40 Items in Total
### 2019+ WY-ALT Assessment Blueprints
Grade 5 Mathematics

<table>
<thead>
<tr>
<th>Operations and Algebraic Thinking [6-8 Items; 15-20%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE5.OA.1–2 Write numerical expressions.</td>
</tr>
<tr>
<td>EE5.OA.3 Identify and extend numerical patterns.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Numbers and Operations in Base Ten [10-12 Items; 25-30%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE5.NBT.1 Compare numbers to each other based on place value.</td>
</tr>
<tr>
<td>EE5.NBT.2 Recognize patterns when multiplying a number by powers of 10.</td>
</tr>
<tr>
<td>EE5.NBT.3–4 Understand rounding in the place value system.</td>
</tr>
<tr>
<td>EE5.NBT.5–7 Perform operations with whole numbers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number and Operations – Fractions [5-7 Items; 12.5-17.5%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE5.NF.1–2 Develop an understanding of addition and subtraction with fractions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Measurement and Data [7-9 Items; 17.5-22.5%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE5.MD.1 Solve measurement problems.</td>
</tr>
<tr>
<td>EE5.MD.2 Represent and interpret data.</td>
</tr>
<tr>
<td>EE5.MD.3–5 Determine volume of a cube by counting units of measure.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Geometry [7-9 Items; 17.5-22.5%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE5.G.3–4 Classify two-dimensional figures.</td>
</tr>
</tbody>
</table>

40 Items in Total
<table>
<thead>
<tr>
<th>Category</th>
<th>Item Numbers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratios and Proportional Relationships</td>
<td>EE6.RP.1–3</td>
<td>Demonstrate a simple ratio relationship.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Number System</td>
<td>EE6.NS.1</td>
<td>Compare relationships between fractions and understand that a number can be expressed as a fraction.</td>
</tr>
<tr>
<td></td>
<td>EE6.NS.2</td>
<td>Divide two-digit/three-digit numbers without remainders.</td>
</tr>
<tr>
<td></td>
<td>EE6.NS.3</td>
<td>Add, subtract, multiply, and divide whole numbers with decimals up to the hundredths place.</td>
</tr>
<tr>
<td></td>
<td>EE6.NS.4</td>
<td>Identify common factors within numbers.</td>
</tr>
<tr>
<td></td>
<td>EE6.NS.5</td>
<td>Compare the value of numbers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressions and Equations</td>
<td>EE6.EE.1–2</td>
<td>Evaluate algebraic expressions.</td>
</tr>
<tr>
<td></td>
<td>EE6.EE.3–4</td>
<td>Demonstrate understanding of equivalent expressions.</td>
</tr>
<tr>
<td></td>
<td>EE6.EE.5–6</td>
<td>Match an equation to a real-world problem in which variables are used to represent numbers.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geometry</td>
<td>EE6.G.1</td>
<td>Demonstrate area.</td>
</tr>
<tr>
<td></td>
<td>EE6.G.2</td>
<td>Demonstrate volume.</td>
</tr>
<tr>
<td></td>
<td>EE6.G.3</td>
<td>Plot points on a coordinate grid.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Statistics and Probability</td>
<td>EE6.SP.1</td>
<td>Develop a statistical question.</td>
</tr>
<tr>
<td></td>
<td>EE6.SP.2–3</td>
<td>Analyze data with mean, median, mode, and range.</td>
</tr>
<tr>
<td></td>
<td>EE6.SP.5</td>
<td>Summarize data distributions on a graph or table.</td>
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</tbody>
</table>

40 Items in Total
# 2019+ WY-ALT Assessment Blueprints

## Grade 7 Mathematics

### Ratios and Proportional Relationships [7-9 Items; 17.5-22.5%]

- **EE7.RP.1–3**: Understand how to use ratios to solve problems.

### The Number System [6-8 Items; 15-20%]

- **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.
- **EE7.NS.2**: Solve multiplication and division problems involving fractions.

### Expressions and Equations [8-10 Items; 20-25%]

- **EE7.EE.1–2**: Use the relationship within addition and/or multiplication to illustrate that two expressions are equivalent.
- **EE7.EE.3**: Solve two-step real-world addition and subtraction equations using positive and negative numbers.
- **EE7.EE.4**: Use the concept of equality with models to solve addition and subtraction equations.

### Geometry [7-9 Items; 17.5-22.5%]

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

### Statistics and Probability [6-8 Items; 15-20%]

- **EE7.SP.1**: Understand characteristics of sampling.
- **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.
- **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.
- **EE7.SP.6**: Make predictions regarding the probability of a chance event based on data.

**40 Items in Total**
# 2019+ WY-ALT Assessment Blueprints
## Grade 8 Mathematics

### The Number System [4-5 Items; 10-12.5%]
- **EE8.NS.1** Understand the comparability between fractions and decimals.
- **EE8.NS.2** Understand the comparability between fractions and decimals.

### Expressions and Equations [10-12 Items; 25-30%]
- **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 [8-10 Items; 20-25%]
- **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 [8-10 Items; 20-25%]
- **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 [5-7 Items; 12.5-17.5%]
- **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.

40 Items in Total
# 2019+ WY-ALT Assessment Blueprints
## High School Mathematics – pg. 1 of 2

### Number and Quantity [7-9 Items; 17.5-22.5%]

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEN-RN.1</td>
<td>Solve division problems with remainders using concrete objects.</td>
</tr>
<tr>
<td>EEN-Q.1–3</td>
<td>Express quantities to the appropriate precision of measurement.</td>
</tr>
<tr>
<td>EEN-CN.2</td>
<td>Use the operations of addition, subtraction, and multiplication with decimals (decimal value × whole number) in real-world situations using money as the standard units.</td>
</tr>
</tbody>
</table>

### Algebra [6-8 Items; 15-20%]

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

### Functions [4-6 Items; 10-15%]

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EEF-IF.1–3</td>
<td>Use the concept of function to solve problems.</td>
</tr>
<tr>
<td>EEF-IF.4–6</td>
<td>Interpret rate of change (e.g., higher/lower, faster/slower).</td>
</tr>
<tr>
<td>EEF-BF.1</td>
<td>Select the appropriate graphical representation (first quadrant) given a situation involving constant rate of change.</td>
</tr>
<tr>
<td>EEF-BF.2</td>
<td>Build an arithmetic sequence when provided a linear pattern.</td>
</tr>
<tr>
<td>EEF-LE.1–4</td>
<td>Interpret a simple linear function such as y = mx to show functions grow by equal factors over equal intervals.</td>
</tr>
<tr>
<td>EEF-LE.5</td>
<td>Indicate the boundaries of a function.</td>
</tr>
</tbody>
</table>
### Geometry [13-15 Items; 32.5-37.5%]

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

### Statistics and Probability [5-7 Items; 12.5-17.5%]

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

**40 Items in Total**