

## Operations and Algebraic Thinking (OA)

Cluster Headings	Content Standards
A. Represent and solve problems involving addition and subtraction.	<p><b>1.OA.A.1</b> Add and subtract within 20 to solve contextual problems, with unknowns in all positions, involving situations of <i>add to</i>, <i>take from</i>, <i>put together/take apart</i>, and <i>compare</i>. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem. (See Table 1 – Addition and Subtraction Situations.) Q1, Q2</p> <p><b>1.OA.A.2</b> Add three whole numbers whose sum is within 20 to solve contextual problems using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Q1</p>
B. Understand and apply properties of operations and the relationship between addition and subtraction.	<p style="text-align: center;">(See Table 3 – Properties of Operations)</p> <p><b>1.OA.B.3</b> Apply properties of operations (additive identify, commutative, and associative) as strategies to add and subtract. (Students need not use formal terms for these properties.) Q1</p> <p><b>1.OA.B.4</b> Understand subtraction as an unknown-addend problem. <i>For example, to solve <math>10-8 = \underline{\quad}</math>, a student can use <math>8 + \underline{\quad} = 10</math>.</i> Q2</p>
C. Add and subtract within 20.	<p><b>1.OA.C.5</b> Add and subtract within 20 using strategies such as counting on, counting back, making 10, using fact families and related known facts, and composing/decomposing numbers with an emphasis on making ten (e.g., <math>13-4 = 13-3-1 = 10-1 = 9</math> or adding <math>6+7</math> by creating the known equivalent <math>6+4+3 = 10+3+13</math>). Q1, Q2</p> <p><b>1.OA.C.6</b> Fluently add and subtract within 20 using mental strategies. By the end of 1<sup>st</sup> grade, know from memory all sums up to 10. Q1, Q2</p>
D. Work with addition and subtraction equations	<p><b>1.OA.D.7</b> Understand the meaning of the equal sign (e.g., <math>6 = 6</math>; <math>5 + 2 = 4 + 3</math>; <math>7 = 8 - 1</math>). Determine if equations involving addition and subtraction are true or false. Q2</p> <p><b>1.OA.D.8</b> Determine the unknown whole number in an addition or subtraction equation, with the unknown in any position (e.g., <math>8 + \text{?} = 11</math>, <math>5 = \text{?} - 3</math>, <math>6 + 6 = \text{?}</math>). Q1, Q2</p>

## Number and Operations in Base Ten (NBT)

Cluster Headings	Content Standards
A. Extend the counting sequence.	<b>1.NBT.A.1</b> Count to 120, starting at any number. Read and write numerals to 120 and represent a number of objects with a written numeral. Count backward from 20. Q2
B. Understand place value.	<p><b>1.NBT.B.2</b> Know that the digits of a two-digit number represent groups of tens and ones (e.g., 39 can be represented as 39 ones, 2 tens and 19 ones, or 3 tens and 9 ones). Q2</p> <p><b>1.NBT.B.3</b> Compare two two-digit numbers based on the meanings of the digits in each place and use the symbols <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> to show the relationship. Q3</p>
C. Use place value understanding and properties of operations to add and subtract.	<p><b>1.NBT.C.4</b> Add a two-digit number to a one-digit number and a two-digit number to a multiple of ten (within 100). Use concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used. Q3</p> <p><b>1.NBT.C.5</b> Mentally find 10 more or 10 less than a given two-digit number without having to count by ones and explain the reasoning used. Q3</p> <p><b>1.NBT.C.6</b> Subtract multiples of 10 from multiples of 10 in the range 10-90 using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Q3</p>

Major content of the grade is indicated by the green highlighting of the cluster heading and standard's coding.

Major Content	Supporting Content
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## Measurement and Data (MD)

Cluster Headings	Content Standards
A. Measure lengths indirectly and by iterating length units.	<p><b>1.MD.A.1</b> Order three objects by length. Compare the lengths of two objects indirectly by using a third object. <i>For example, to compare indirectly the heights of Bill and Susan: if Bill is taller than mother and mother is taller than Susan, then Bill is taller than Susan.</i> Q3</p> <p><b>1.MD.A.2</b> Measure the length of an object using non-standard units and express this length as a whole number of units. Q3</p>
B. Work with time and money.	<p><b>1.MD.B.3</b> Tell and write time in hours and half-hours using analog and digital clocks.</p> <p><b>1.MD.B.4</b> Count the value of a set of like coins less than one dollar using the <math>\notin</math> symbol only. Q4</p>
C. Represent and interpret data.	<b>1.MD.C.5</b> Organize, represent, and interpret data with up to three categories. Ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another. Q4

## Geometry (G)

Cluster Headings	Content Standards
A. Reason about shapes and their attributes.	<p><b>1.G.A.1</b> Distinguish between attributes that define a shape (e.g., number of sides and vertices) versus attributes that do not define the shape (e.g., color, orientation, overall size); build and draw two-dimensional shapes to possess defining attributes. Q4</p> <p><b>1.G.A.2</b> Create a composite shape and use the composite shape to make new shapes by using two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, rectangular prisms, cones, and cylinders). Q4</p> <p><b>1.G.A.3</b> Partition circles and rectangles into two and four equal shares, describe the shares using the words <i>halves</i>, <i>fourths</i>, and <i>quarters</i>, and use the phrases <i>half of</i>, <i>fourth of</i>, and <i>quarter of</i>. Describe the whole as two of, or four of the shares. Understand for these examples that partitioning into more equal shares creates smaller shares. Q4</p>

## Fluency Expectations for K-2

**Kindergarten** – Fluently add and subtract within **10** using mental strategies.

**First Grade** – Fluently add and subtract within **20** using mental strategies. By the end of 1<sup>st</sup> grade, know from memory all sums up to **10**.

**Second Grade** – Fluently add and subtract within **30** using mental strategies. By the end of 2<sup>nd</sup> grade, know from memory **all sums** of two one-digit numbers and **related subtraction facts**.