



TEAM
Student Growth Portfolio
Rubric
Second Grade
Mathematics

Second Grade Mathematics

Operations and Algebraic Thinking (OA)

Cluster: Represent and solve problems involving addition and subtraction.

Standard: 2.O.A.A.1 Add and subtract within 100 to solve one- and two-step contextual problems, with unknowns in all positions, involving situations of *add to*, *take from*, *put together/take apart*, and *compare*. Use objects, drawings, and equations with a symbol for the unknown number to represent the problem.

0	<ul style="list-style-type: none"> • Teacher presents student with two addition and two subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using at least two different situations from the following four: <ol style="list-style-type: none"> 1) add to-start unknown, 2) take from-start unknown, 3) compare-smaller unknown (version with more), or 4) compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> ○ Student does not accurately represent any of the problems. AND • Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> ○ Student does not accurately represent any of the problems with a mathematical drawing, diagram, or equation(s).
1	<ul style="list-style-type: none"> • Teacher presents student with two addition and two subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using at least two different situations from the following four: <ol style="list-style-type: none"> 1) add to-start unknown, 2) take from-start unknown, 3) compare-smaller unknown (version with more), or 4) compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> ○ Student accurately represents 1 or 2 problems with a mathematical drawing or concrete models. <p>AND</p> • Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> ○ Student does not accurately represent any of the problems with a mathematical drawing, diagram, or equation(s).
2	<ul style="list-style-type: none"> • Teacher presents student with two addition and two subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using at least two different situations from the following four: <ol style="list-style-type: none"> 1) add to-start unknown, 2) take from-start unknown, 3) compare-smaller unknown (version with more), or 4) compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> ○ Student accurately represents 3 or 4 problems with a mathematical drawing or concrete models. <p>AND</p> • Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> ○ Student accurately represents one problem with a mathematical drawing, diagram, or equation(s).
3	<ul style="list-style-type: none"> • Teacher presents student with two addition and two subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using at least two different situations from the following four: <ol style="list-style-type: none"> 1) add to-start unknown, 2) take from-start unknown, 3) compare-smaller unknown (version with more), or 4) compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> ○ Student accurately represents all 4 problems with a mathematical drawing, diagram, or equation with a symbol for the unknown number. <p>AND</p> • Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> ○ Student accurately represents both problems with a mathematical drawing, diagram, or equation(s).

4	<ul style="list-style-type: none"> Teacher presents student with three addition and three subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using at least three different situations from the following four: <ol style="list-style-type: none"> add to-start unknown, take from-start unknown, compare-smaller unknown (version with more), or compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> Student accurately represents all 6 problems with a mathematical drawing, diagram, or equation with a symbol for the unknown number. <p>AND</p> Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> Student accurately represents both problems with a number line model or equation(s) with a symbol for the unknown number(s).
5	<ul style="list-style-type: none"> Teacher presents student with four addition and four subtraction one-step contextual problems within 100 that do not require composing or decomposing tens, using all four situations below: <ol style="list-style-type: none"> add to-start unknown, take from-start unknown, compare-smaller unknown (version with more), or compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> Student accurately represents all 8 problems with a number line model or equation(s) with a symbol for the unknown number(s). <p>AND</p> Teacher presents student with one addition and one subtraction two-step contextual problem within 100. <ul style="list-style-type: none"> Student accurately represents both problems with a number line model and equation(s) with a symbol for the unknown number(s).
6*	<ul style="list-style-type: none"> Teacher provides student with two one-step equations arising from two of the following situations: <ol style="list-style-type: none"> add to-start unknown, take from-start unknown, compare-smaller unknown (version with more), or compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> Student accurately creates two unique contextual problems that could be solved using the provided equations. <p>AND</p> Teacher presents student with two addition and two subtraction two-step contextual problems within 100. <ul style="list-style-type: none"> Student accurately represents all 4 problems with a single equation for each that encompasses both steps needed to solve the problem.
7*	<p>In addition to providing evidence that the student met the expectations of level 6,</p> <ul style="list-style-type: none"> Teacher provides student with two, two-step equations (one of which incorporates both addition and subtraction) arising from two of the following situations: <ol style="list-style-type: none"> add to-start unknown, take from-start unknown, compare-smaller unknown (version with more), or compare-bigger unknown (version with fewer). <ul style="list-style-type: none"> Student accurately creates two unique contextual problems that could be solved using the provided equations.

Scoring Notes: Reference [Table 1: Common Addition and Subtraction Situations Chart in the Tennessee State Standards](#). First grade students should have experience with all 12 problem types but are not expected to master those labeled second grade. Second grade students should master all of these problem types. Please note that contextual problems can be read aloud to any student.

Second Grade Mathematics

Number and Operations in Base Ten (NBT)		Cluster: Use place value understanding and properties of operations to add and subtract.
Standard: 2.NBT.B.6 Add up to four two-digit numbers using properties of operations and strategies based on place value.		
0	Teacher presents student with at least two problems adding two two-digit numbers with sums less than 20 that require composing or decomposing tens.	Student does not accurately complete any problems.
1	Teacher presents student with at least two problems adding two two-digit numbers with sums less than 20 that require composing or decomposing tens.	Student accurately completes all problems.
2	Teacher presents student with at least two problems adding three two-digit numbers with sums within 100 that do not require composing or decomposing tens.	Student accurately completes all problems.
3	Teacher presents student with at least two problems adding four two-digit numbers with sums within 100 that require composing or decomposing tens.	Student accurately completes all problems.
4	In addition to providing evidence that a student met the expectations of level 3: Teacher presents student with at least two problems adding three two-digit numbers with sums greater than 100 that require composing or decomposing tens.	Student accurately completes all problems.
5	In addition to providing evidence that a student met the expectations of levels 3 & 4: Teacher presents student with at least two problems adding four two-digit numbers with sums greater than 100 that require composing or decomposing tens.	Student accurately completes all problems.
6*	In addition to providing evidence that a student met the expectations of levels 3, 4, & 5: Teacher provides student with a whole number within 100 .	Student accurately creates three different equations , each involving the sum of at least three addends and requiring regrouping that add up to the provided whole number. Student explains the properties of operations or place-value based strategies that could be used to solve each of the three created expressions.
7*	In addition to providing evidence that a student met the expectations of levels 3, 4, 5, & 6: Teacher provides student with a whole number within 100 .	Student accurately creates three different equations , each involving the sum of at least four addends and requiring regrouping that add up to the provided whole number. Student explains the properties of operations or place-value based strategies that could be used to solve each of the three created expressions.

Second Grade Mathematics

Number and Operations in Base Ten (NBT)		Cluster: Use place value understanding and properties of operations to add and subtract.
Standard: 2.NBT.B.7 Add and subtract within 1000 using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction to explain the reasoning used.		
0	Teacher presents student with two addition and two subtraction problems containing two whole numbers with sums/differences within 1,000 that do not require composing or decomposing tens or hundreds.	Student does not accurately explain the answer for any problems.
1	Teacher presents student with two addition and two subtraction problems containing two whole numbers with sums/differences within 1,000 that do not require composing or decomposing tens or hundreds.	Student accurately explains the answer for only both addition OR only both subtraction problems using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
2	Teacher presents student with two addition and two subtraction problems containing two whole numbers with sums/differences within 1,000 that do not require composing or decomposing tens or hundreds.	Student accurately explains the answer for all problems using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
3	Teacher presents student with two addition and two subtraction problems containing two whole numbers with sums/differences within 1,000 that require composing or decomposing tens or hundreds.	Student accurately explains the answer for all problems using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
4	Teacher presents student with two addition and two subtraction problems containing two whole numbers with sums/differences within 1,000 that require composing or decomposing tens and hundreds.	Student accurately explains the answer for all problems using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
5	Teacher presents student with two addition and two subtraction problems containing three whole numbers with sums/differences within 1,000 that require composing or decomposing tens and hundreds.	Student accurately explains the answer for all problems using concrete models, drawings, strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
6*	Teacher presents student with two addition and two subtraction problems containing three whole numbers with sums/differences within 1,000 that require composing or decomposing tens and hundreds.	Student accurately explains the answer for all problems using two different strategies and describes how the two selected strategies are similar and how they are different.
7*	Teacher presents student with two subtraction problems containing more than three whole numbers with a difference within 1,000 that require composing or decomposing tens and hundreds.	Student accurately explains the answer for both problems using two different strategies and describes how the two selected strategies are similar and how they are different.

Second Grade Mathematics

Measurement and Data (MD)

Cluster: Relate addition and subtraction to length

Standard: 2.MD.B.5 Add and subtract within 100 to solve contextual problems involving lengths that are given in the same units by using drawings and equations with a symbol for the unknown to represent the problem.

0	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which do not require composing or decomposing tens.	Student does not accurately represent any problems.
1	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which do not require composing or decomposing tens.	Student accurately represents both addition or both subtraction problems with a <u>mathematical drawing or concrete models</u> .
2	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which do not require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>mathematical drawing or concrete models</u> .
3	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which do not require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>mathematical drawing and equation</u> with a symbol for the unknown number.
4	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>mathematical drawing and equation</u> with a symbol for the unknown number.
5	Teacher presents student with two addition and two subtraction contextual problems within 100 involving lengths given with the same units which require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>number line model and equation</u> with a symbol for the unknown number.
6*	Teacher presents student with two addition and two subtraction contextual problems within 100 involving three or more lengths given with the same units which require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>number line model and equation</u> with a symbol for the unknown number.
7*	Teacher presents student with two addition and two subtraction contextual problems within 100 involving four or more lengths given with the same units which require composing or decomposing tens.	Student accurately represents all 4 problems with a <u>number line model and equation</u> with a symbol for the unknown number.

Scoring Notes: Teachers must reference the [Table 1: Common Addition and Subtraction Situations Chart in the Tennessee State Standards](#) (found on page 20 of the Math Tennessee State Standards).

Second Grade Mathematics

Measurement and Data (MD)		Cluster: Relate addition and subtraction to length
<p>Standard 2.MD.B.6 Represent whole numbers as lengths from 0 on a number line and know that the points corresponding to the numbers on the number line are equally spaced. Use a number line to represent whole number sums and differences of lengths within 100.</p>		
0	Teacher presents student with two addition and two subtraction problems involving whole number lengths within 100 and provides the student with a number line model to solve the problems.	Student does not accurately represent any problems.
1	Teacher presents student with two addition and two subtraction problems involving whole number lengths within 100 and provides the student with a number line model to solve the problems.	Student accurately represents only the addition or only the subtraction problems by using the number line to model the strategy and solution.
2	Teacher presents student with two addition and two subtraction problems involving whole number lengths within 100 and provides the student with a number line model to solve the problems.	Student accurately represents all 4 problems by using the number line to model the strategy and solution.
3	Teacher presents student with two addition and two subtraction problems involving whole number lengths within 100 and prompts the student to create a number line model to solve the problems.	Student accurately represents all 4 problems by creating a number line model, marking and labeling the number line model with equal spaces, and using the number line to model the strategy and solution.
4	Teacher provides student with two addition and two subtraction contextual problems involving whole number lengths within 100 and prompts the student to create a number line model to solve the problems.	Student accurately models all 4 problems by drawing a number model and an equation to represent the situation.
5	<p>In addition to providing evidence the student met the expectations of level 4:</p> <p>Teacher provides student with two addition and two subtraction contextual problems involving whole number lengths within 100 and prompts the student to create a number line model to solve the problems.</p>	<p>Student accurately models all 4 problems by drawing a number model and an equation to represent the situation.</p> <p>Student accurately defends their strategies and solutions with a verbal or written explanation.</p>
6*	<p>In addition to providing evidence the student met the expectations of level 4 and 5:</p> <p>Teacher provides student with a number line model depicting addition within 100.</p>	Student accurately writes the addition equation modeled and then generates a contextual problem involving lengths that can be solved by the provided model.
7*	<p>In addition to providing evidence the student met the expectations of level 4, 5, and 6:</p> <p>Teacher provides student with a number line model depicting subtraction within 100.</p>	Student accurately writes the addition equation modeled and then generates a contextual problem involving lengths that can be solved by the provided model.
<p>Scoring Notes: Teachers must reference the Table 1: Common Addition and Subtraction Situations Chart in the Tennessee State Standards (found on page 20 of the Math Tennessee State Standards).</p>		