

## SD Common Core State Standards Disaggregated Math Template

<b>Domain:</b>	Operations and Algebraic Thinking	<b>Cluster:</b>	Represent and solve problems involving addition and subtraction	<b>Grade level:</b>	1
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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
K.OA.2 Solve addition and subtraction word problems, and add or subtract within 10, e.g., by using objects or drawing to represent the problem.	1.OA.1 Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem	2.OA.1 use addition and subtraction within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g, by using drawings and equations with a symbol for the unknown number to represent the problem.

Student Friendly Language:
I can solve addition and subtraction word problems up to 20 in a way that makes sense to me.
I can write an equation using the correct symbols to solve word problems up to 20.

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>• Strategies of addition</li> <li>• Rules of subtraction</li> <li>• Numbers to 20</li> </ul>	<p>There is a relationship between addition and subtraction.</p> <p>When adding, the sum will be greater.</p> <p>When subtracting, the difference will be less.</p> <p>There is more than one way to solve a word problem.</p>	<p>Solve addition word problems up to 20 using a strategy of their choice.</p> <p>Solve subtraction word problems within 20 using a strategy of their choice.</p>

Key Vocabulary:				
<table style="width: 100%; border: none;"> <tr> <td style="width: 25%;">Add (+) Difference</td> <td style="width: 25%;">Subtract (-) Equal (=) Symbol</td> <td style="width: 25%;">Solve Compare</td> <td style="width: 25%;">Sum</td> </tr> </table>	Add (+) Difference	Subtract (-) Equal (=) Symbol	Solve Compare	Sum
Add (+) Difference	Subtract (-) Equal (=) Symbol	Solve Compare	Sum	
Relevance and Applications: How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?				
<p>Getting ingredients and preparing for recipes.</p> <p>Saving to buy a special toy.</p> <p>Keeping track of allowances.</p>				

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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g. by using objects or drawings to represent the problem.	1.OA.2 Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	2.OA.1 - Use addition and subtraction within 100 to solve one and two step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g. by using drawings and equations with a symbol for the unknown number to represent the problem.

Student Friendly Language:
I can solve addition story problems with 3 numbers up to 20 using a symbol for the missing addend ,
I can solve addition story problems with 3 numbers up to 20 using a box for the missing addend.
I can solve additions tory problems with 3 numbers up to 20 using a letter for the missing addend.

Know (factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>● Basic addition facts up to 20</li> <li>● Strategies of addition</li> <li>● Numbers to 20</li> </ul>	<ul style="list-style-type: none"> <li>● The sum is greater than the addends.</li> <li>● A symbol can take the place of a number.</li> </ul>	<p>Solve a story problem with three numbers and an unknown addend.</p> <p>Use objects, drawings, or equations with a symbol to find the unknown addend in a story problem.</p>

Key Vocabulary:						
<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">sum</td> <td style="width: 33%;">equal</td> <td style="width: 33%;">symbol</td> </tr> <tr> <td>unknown</td> <td>addend</td> <td>equation</td> </tr> </table>	sum	equal	symbol	unknown	addend	equation
sum	equal	symbol				
unknown	addend	equation				
<b>Relevance and Applications:</b> How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?						
<p>There are 10 kids in your class you have 4 treats, the teacher has 2 how many more do you need so everyone can have a treat?</p> <p>When making lemonade, each pitcher makes 5 glasses. How many pitchers would you need for 15 friends? If the toy box has five balls, six dolls, and three cars, how many toys are in the toy box?</p>						

## SD Common Core State Standards Disaggregated Math Template

<b>Domain:</b>	Operations and Algebraic Thinking	<b>Cluster:</b>	Understand and apply properties of operations and the relationship between addition and subtraction	<b>Grade level:</b>	1
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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by drawing or equation (e.g. $5 = 2+3$ and $5=4+1$ ).	1.OA.3 Apply properties of operations as strategies to add and subtract. Examples: If $8 + 3 = 11$ is known, then $3 + 8 = 11$ is also known. (Commutative property of addition.) To add $2 + 6 + 4$ , the second two numbers can be added to make a ten, so $2 + 6 + 4 = 2 + 10 = 12$ . (Associative property of addition.) (Students need not use formal terms for these properties.)	2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Student Friendly Language:
I can add and subtract in ways that make sense to me.
I can add two numbers in any order to get the same sum.

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>● Addition</li> <li>● Subtraction</li> <li>● Fact families</li> </ul>	There are various strategies (properties of operation) that can be used to solve addition and subtraction problems.	Apply properties of operations as strategies to add and subtract problems within 20.  Explain strategy used to add and subtract.

Key Vocabulary:
Strategies
Relevance and Applications: How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?
To quickly find the total number of people at a family gathering.

## SD Common Core State Standards Disaggregated Math Template

<b>Domain:</b>	Operations and Algebraic Thinking	<b>Cluster:</b>	Understand and apply properties of operations and the relationship between addition and subtraction	<b>Grade level:</b>	1
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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
<p>K.OA .1 Represent addition and subtraction with objects, fingers, mental images, drawings, sound, acting out situations, verbal explanations, expressions or equations.</p> <p>K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawing to represent the problem..</p>	<p>1.OA.4 Understand subtraction as an unknown-addend problem. For example, subtract <math>10 - 8</math> by finding the number that makes 10 when added to 8.</p>	<p>2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.</p> <p>2.OA.2 Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of the two one-digit numbers.</p>

<b>Student Friendly Language:</b>
I can use addition facts to subtract.

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>• Basic addition facts</li> <li>• Fact families</li> </ul>	<p>Addition and subtraction facts are related.</p>	<p>Write a subtraction number sentence and its related addition number sentence.</p> <p>Model using addends and sums to subtract</p> <p>Identify patterns in the writing of number families.</p>

<b>Key Vocabulary:</b>
Addend Unknown
<b>Relevance and Applications:</b> How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?
How much more do I have to save to be able to make purchases in the classroom store?
If some of your toys are missing you can figure out how many are gone.
If you are saving for a toy how much will you need?

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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	1.OA.5 Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	2.OA.2 Fluently add and subtract within 20 using mental strategies. By the end of Grade 2, know from memory all sums of two one digit numbers.

Student Friendly Language:
<p>I can choose objects or draw a picture to show counting on as addition</p> <p>I can choose objects or draw a picture to show counting back as subtraction.</p> <p>I can count on from a given number to add.</p> <p>I can count back from a given number to subtract.</p>

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>Numbers follow sequential order</li> <li>Different ways to represent numbers</li> <li>How to count on from a given number to add</li> <li>How to count back from a given number to subtract</li> </ul>	<p>A number is increased in sequence when objects are added.</p> <p>When you count on, the last number said is the total amount.</p> <p>A number is decreased in sequence when objects are subtracted.</p> <p>When you count backwards, the last number said is the amount left.</p>	<p>Apply concepts of counting on and counting back.</p> <p>Identify numbers.</p> <p>Use objects to count.</p> <p>Explain why and how a number gets bigger or smaller.</p> <p>Construct a model to show addition or subtraction.</p>

Key Vocabulary:
<p>counting addition subtraction</p>
Relevance and Applications: How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?
<p>To develop flexible math thinking in order to find total number of objects you have or need.</p> <p>To make addition and subtraction more efficient and effective.</p> <p>If you have two cookies, and someone gives you two more cookies. You now have 4 cookies.</p>

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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
K.OA.5 Fluently add and subtract within 5.	1.OA.6 Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$ ); decomposing a number leading to a ten (e.g., $13 - 4 = 13 - 3 - 1 = 10 - 1 = 9$ ); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$ , one knows $12 - 8 = 4$ ); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$ ).	2.OA.2 Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.

Student Friendly Language:
<p>I can add numbers up to 20 in many different ways.                      I can subtract numbers up to 20 in many different ways..                      I can fluently solve addition up to 10.                      I can fluently solve subtraction up to 10.</p>

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>● numbers to 20</li> <li>● number sense</li> <li>● process of addition</li> <li>● process of subtraction</li> <li>● mathematical symbols</li> <li>● variety of strategies to solve addition</li> <li>● variety of strategies to solve subtraction</li> </ul>	<p>Addition means combining to find the sum.</p> <p>Subtraction means taking away to find the difference.</p> <p>There is a relationship between addition and subtraction problems.</p> <p>Numbers represent a value and symbols represent an operation.</p> <p>There are various strategies that can be used for addition and subtraction problems.</p> <p>Fluency is important because it will help them become efficient problem solvers.</p>	<p>Recall addition and subtraction problems up to 10 fluently.</p> <p>Use manipulatives to demonstrate different strategies.</p> <p>Explain the strategy used to solve problems up to 20.</p> <p>Demonstrate the process of addition and subtraction up to 20.</p> <p>Show the correlation between numbers and objects.</p>

Key Vocabulary:
addition      subtraction      fluency <u>strategies</u>
Relevance and Applications: How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?
These skills are important when shopping, using money, telling time, sharing, and reading a calendar.

## SD Common Core State Standards Disaggregated Math Template

<b>Domain:</b>	Operations and Algebraic Thinking	<b>Cluster:</b>	Work with addition and subtraction equations	<b>Grade level:</b>	1
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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
N/A	1.OA.7 Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? $6 = 6$ , $7 = 8 - 1$ , $5 + 2 = 2 + 5$ , $4 + 1 = 5 + 2$ .	2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

### Student Friendly Language:

I can explain that the equal sign means “the same as”.

I can determine whether an addition or subtraction number sentence is true or false.

I can prove an addition or subtraction problem is true or false with the equal sign in any position.

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
Meaning and symbols of: <ul style="list-style-type: none"> <li>● addition (+)</li> <li>● subtraction (-)</li> <li>● equal (=)</li> <li>● true and false equations</li> <li>● number sense (one to one correspondence)</li> </ul>	An equal sign represents balance on both sides of the equation.  Students will understand that the equal sign does not mean the “answer”.	Explain meaning of equal sign. Demonstrate understanding of equal sign. Determine whether addition or subtraction equation is true or false. Prove an equation is balanced with the equal sign in any position. Use manipulatives to show how the two sides of an equation are equal.

### Key Vocabulary:

addition equation	subtraction true and false	number sentence equations	balanced equation equal	+, -, =
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**Relevance and Applications: How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?**

At home, a student could determine what is fair. (ex. fair shares between siblings)

At school, a student could solve a story problem. (ex. Susie has 6 oranges. John has 2 apples and 3 bananas. Do they have the same amount of fruit? True or False)

In daily life, a student could determine an equal distribution of chores amongst siblings.

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Correlating Standard in Previous Year	Number Sequence & Standard	Correlating Standard in Following Year
N/A	1.OA.8 Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations $8 + ? = 11$ , $5 = \_ - 3$ , $6 + 6 = \_$ .	2.OA.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g. by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

<b>Student Friendly Language:</b>
<p>I can find the missing number in an addition sentence (equation).</p> <p>I can find the missing number in a subtraction sentence (equation).</p>

Know (Factual)	Understand (Conceptual) The students will understand that:	Do (Procedural, Application, Extended Thinking)
<ul style="list-style-type: none"> <li>● Number sense</li> <li>● The meaning of the symbols + - and =</li> <li>● Number sentence/equation</li> </ul>	<p>The relationship between two whole numbers will determine the value of the unknown, third whole number.</p> <p>The equation has to have the same value on both sides of the equal sign.</p> <p>The plus sign means to join two numbers.</p> <p>The minus sign means to take away a determined amount from a group.</p>	<p>Explain and demonstrate how both sides of an equation are equal.</p> <p>Explain and demonstrate how the unknown number was found.</p> <p>Solve an equation to find the unknown number in an addition or subtraction sentence.</p> <p>Utilize a variety of strategies to find an unknown number.</p>

<b>Key Vocabulary:</b>														
<table style="width: 100%; border: none;"> <tr> <td style="border: none;">equation</td> <td style="border: none;">determine</td> <td style="border: none;">unknown</td> <td style="border: none;">whole number</td> <td style="border: none;">addition</td> <td style="border: none;">subtraction</td> <td style="border: none;">equal</td> </tr> <tr> <td style="border: none;">plus/minus</td> <td style="border: none;">add/subtract</td> <td style="border: none;">sum/difference</td> <td style="border: none;">number sentence</td> <td style="border: none;">balanced equation</td> <td style="border: none;">relating</td> <td style="border: none;"></td> </tr> </table>	equation	determine	unknown	whole number	addition	subtraction	equal	plus/minus	add/subtract	sum/difference	number sentence	balanced equation	relating	
equation	determine	unknown	whole number	addition	subtraction	equal								
plus/minus	add/subtract	sum/difference	number sentence	balanced equation	relating									

<b>Relevance and Applications:</b> How might the grade level expectation be applied at home, on the job or in a real-world, relevant context? Include at least one example stem for the conversation with students to answer the question “why do I have to learn this”?
<ul style="list-style-type: none"> <li>● To be able to determine how many more or less you need of something to complete a task. You need to be able to solve problems in school, for example, “If you have 12 kids in your class and you only have 8 treats in a box, how many more treats will you need to get?” .</li> <li>● An example for at home is, “You have to set the table for 5 people and you only have 3 plates, how many more plates do you need?”</li> <li>● An example for daily life is, “I want to buy a book for \$8. I have \$5. How much more do I have to earn?”</li> </ul>