

Grade 1			
Unit	Unit Title	Lesson	Day
<b>3.2</b>	<b>Developing Addition &amp; Subtraction Strategies</b> <i>Reading &amp; Writing Numerals</i>	<b>1 of 4</b>	<b>1 - 3</b>
Lesson Focus			
1. Standards Addressed	2. Content to be Learned	3. Mathematical Practices	4. Essential Question
<b>1.OA.3</b> Apply properties of operations as strategies to add and subtract. <sup>3</sup> Examples: If $8 + 3 = 11$ , then $3 + 8 = 11$ . (Known by the Commutative Property of Addition). <del>Associative Property for Addition.</del> See Q4Unit4.2. <sup>3</sup> Students need not use formal names for these properties.)	<ul style="list-style-type: none"> <li>Understand and apply the Commutative Property and Additive Identity Property (<math>5 + 0 = 5</math>) as a strategy to solve an addition problem.</li> <li>Recognize that the Commutative Property does not work for subtraction.</li> </ul>	<p><b>SMP1</b> Make sense of problems and persevere in solving them.</p> <p><b>SMP3</b> Construct viable arguments and critique the reasoning of others.</p> <p><b>SMP8</b> Look for and express regularity in repeated reasoning.</p>	<ul style="list-style-type: none"> <li>How is <math>2 + 3</math> related to <math>3 + 2</math>? (For example.)</li> <li>Is it true that <math>2 - 3 = 3 - 2</math>? Why or why not?</li> <li>What happens if you change the order of the addends when you add?</li> <li>What happens to a number when you add zero to it? Or subtract zero from it?</li> </ul>
5. Prerequisite Knowledge	6. Essential Vocabulary	7. Possible Misconceptions	8. Necessary Materials
<ul style="list-style-type: none"> <li>Understands how to write an addition sentence.</li> <li>Understand the relationship between addition and subtraction.</li> </ul>	Order Properties Add Subtract Addends	Thinks that the commutative property works for subtraction and gives the same answer for $2 - 3$ as $3 - 2$ .	<p><b>OnCore</b> Lesson 16 – 18 Student pages 31 – 36</p> <p><b>K-5 Math Resources</b></p> <p><a href="#">Turn Around Trains</a></p> <p><input type="checkbox"/> <a href="#">Turn Around Dominoes</a></p>
Instruction			
9. Instruction Practices (What are the teachers doing)	10. Learning Practices (What are the students doing)		
Teachers will guide student to understand and apply the Commutative Property ( $5 + 3 = 3 + 5$ ) and the Additive Identity Property ( $5 + 0 = 5$ ) as a strategy to add and subtract. Teachers may use this name informally, but students need not use these formal names. They will help students to understand that the commutative property does not work for subtraction but the identity property does. Teachers may use the OnCore Lessons 16 – 18, the K-5 Math Resources to help prepare students for this standard.	Students will understand and apply the Commutative Property and the Additive Identity Property as a strategy to add and subtract. They will not be required to use the formal names for these properties but to understand how and when they work. Students will understand that the Commutative Property does not work for subtraction (see misconceptions) but the identity property does ( $5 - 0 = 5$ ). They may practice this concept with the OnCore student pages or the K-5 math Resources.		

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Unit	Unit Title	Lesson	Day
<b>3.2</b>	<b>Developing Addition &amp; Subtraction Strategies</b> <i>Reading &amp; Writing Numerals</i>	<b>2 of 4</b>	<b>4 - 6</b>
Lesson Focus			
1. Standards Addressed	2. Content to be Learned	3. Mathematical Practices	4. Essential Question
<b>1.OA.6</b> Add and subtract within 20, <i>demonstrating fluency for addition and subtraction within 10. ...</i>	•Build fluency with addition and subtraction within 10.	<b>SMP1</b> Make sense of problems and persevere in solving them. <b>SMP6</b> Attend to precision.	•What are some addition facts you find easy to add? Why? •What are some subtraction facts you find easy to subtract? Why?
5. Prerequisite Knowledge	6. Essential Vocabulary	7. Possible Misconceptions	8. Necessary Materials
•Add and subtract within 10 using different strategies. •Write addition and subtraction sentences.	Add Subtract equals	Moving to the vertical form for addition and subtraction may cause some confusion.	<b>OnCore</b> Lesson 25 & 26 Student pages 49 – 52 <b>K-5 Math Resources</b> <a href="#">Sums of Ten</a> <a href="#">□Make 10 Squares</a> <a href="#">Subtract from Ten</a>
Instruction			
9. Instruction Practices (What are the teachers doing)		10. Learning Practices (What are the students doing)	
Teachers will guide students to demonstrate that they are now fluent with addition and subtraction within 10. They may use the materials from OnCore and the activities from K-5 Math Resources to formatively assess their students. Teachers may also want to assess their students orally or with written summative assessments to determine just how fluent each student is and which facts they may need additional help on to be fluent within 10 by the end of the year.		Students will demonstrate their fluency with addition and subtraction within 10 through their work with the OnCore student pages, the K-5 Math Resource activities, oral assessments by the teacher or with written summative assessments. Students that do not demonstrate fluency at this point in the year will need additional intervention practice to insure their fluency within 10 by the end of first grade.	

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### Lesson Focus

1. Standards Addressed	2. Content to be Learned	3. Mathematical Practices	4. Essential Question
<b>1.OA.6</b> Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as <i>counting on; making ten</i> ( $8+6=8+2+4=10+4=14$ ); <i>decomposing a number leading to ten</i> ( $13-4=13-3-1=10-1=9$ ); using the <i>relationship between addition and subtraction</i> ; <b>and</b> <i>creating equivalent but easier or know sums</i> like ( $6+7 = 6+6+1=12+1=13$ ).	<ul style="list-style-type: none"> <li>•Add and subtract within 20 using strategies such as counting on, making ten, doubles, decomposing a number leading to 10 and creating equivalent put easier sums.</li> <li>•Add and subtract within 20 using the relationship between addition and subtraction.</li> </ul>	<b>SMP1</b> Make sense of problems and persevere in solving them. <b>SMP3</b> Construct viable arguments and critique the reasoning of others. <b>SMP6</b> Attend to precision.	<ul style="list-style-type: none"> <li>•How can you use doubles to help you add?</li> <li>•How does knowing your tens facts help make addition easier?</li> <li>•How can you use addition to check a subtraction?</li> <li>•Name two strategies you can use to help with an addition problem? Subtraction problem?</li> </ul>
5. Prerequisite Knowledge	6. Essential Vocabulary	7. Possible Misconceptions	8. Necessary Materials
<ul style="list-style-type: none"> <li>•Understand the meaning of double.</li> <li>•Recognize addition facts that have a sum of 10</li> </ul>	Counting on Making ten Doubles Ten frames	Not using strategies correctly.	<b>OnCore</b> Lesson 27 – 41 Student pages 53 – 82 <b>K-5 Math Resources, if needed</b> <a href="http://www.k-5mathteachingresources.com/1st-grade-number-activities.html">http://www.k-5mathteachingresources.com/1st-grade-number-activities.html</a>

### Instruction

9. Instruction Practices (What are the teachers doing)	10. Learning Practices (What are the students doing)
Teachers will guide students to add and subtract within 20 using strategies such as counting on, making 10, doubles, decomposing, creating equivalent but easier sums and using the relationship between addition and subtraction. They will also help students to refer to addition to check their subtraction. Teachers may choose which Oncore lessons are most appropriate for their class or individual students. They may not use them all. If additional practice of a particular strategy is needed the K-5 link has been provided.	Students will add and subtract within 20 using strategies such as counting on, making 10, doubles, decomposing, creating equivalent but easier sums and using the relationship between addition and subtraction. They will be encouraged to check their subtraction using addition. Students will practice various strategies and using materials chosen by their teacher.

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Lesson Focus			
<b>1. Standards Addressed</b>	<b>2. Content to be Learned</b>	<b>3. Mathematical Practices</b>	<b>4. Essential Question</b>
<b>1.NBT.1</b> Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	Count to 120, starting at any number less than 120.	<b>SMP6</b> Attend to precision.	<ul style="list-style-type: none"> <li>•How do you represent how many objects are on this plate?</li> <li>•What does this numeral represent?</li> <li>•What number comes after --- ?</li> <li>•Can you count to 120 starting at --- ? Show me.</li> </ul>
<b>5. Prerequisite Knowledge</b>	<b>6. Essential Vocabulary</b>	<b>7. Possible Misconceptions</b>	<b>8. Necessary Materials</b>
To be close to being proficient at this standard.	Read, write, represent	Knowing the decade names.	Revisit Quarter 2 Unit 2.1.  <b>K-5 Math Resources</b> <a href="#"><i>Missing Numbers Grids 1-50</i></a>  <b>Mathland Worksheets</b> (Included) <i>Grade 1.NBT.1 Lesson A, B, C</i>
Instruction			
<b>9. Instruction Practices (What are the teachers doing)</b>		<b>10. Learning Practices (What are the students doing)</b>	
Teachers will continue to work with students that have yet to master the concept of counting to 120, starting at any number less than 120. They will also work with those students that still have difficulty reading and writing numerals to represent objects within this range. (Note that the K-5 Math Resource pages only count to 50 and all start at 1. )For those students, that have mastered this concept, the teacher will continue to provide them with the strategies and practices of Lesson 3 (adding and subtracting within 120, and demonstrating		Students will convince their teacher that they can count to 120, starting at any number less than 120 along with reading and writing numerals within this range to represent objects. For those students that have mastered this concept, they will spend this time continuing to practice the strategies from Lesson 3 (adding and subtracting within 120, and demonstrating fluency with addition and subtraction within 10.)	

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fluency with addition and subtraction within 10.)	
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