

<p><b>Lesson Plan</b>  Review Chapter 4  Addition and  Subtraction  By Nina Vuong</p>	<p><b>Date:</b>  <b>Time: Duration:</b> 1 hour</p>	<p><b>Grade:</b> 4  <b>Subject Area:</b> Mathematics  <b>School:</b></p>
<p><b>Objectives</b></p>	<p><b>By the end of this lesson, the students will be able to:</b></p> <ul style="list-style-type: none"> <li>• Add and subtract 4-digits numbers by regrouping</li> <li>• Estimate sums and differences by rounding</li> <li>• Add and subtract 2 digits- numbers mentally by using math strategies</li> <li>• Make change</li> <li>• Add and subtract money</li> </ul>	
<p><b>Competencies</b></p>	<p><b>Competency 2: To reason using mathematical concepts and processes</b></p> <p>The students will have to add, subtract and/or estimate in order to complete the task. In addition, the students are asked to determine the important elements and processes of a word problem in order to carry the task.</p>	
<p><b>Essential Knowledges</b></p>	<p><b>ARITHMETIC: MEANING OF OPERATIONS INVOLVING NUMBERS</b></p> <p><b>Natural numbers:</b>  <u>Operation, operation sense:</u> addition (adding, uniting, comparing), sum, subtraction (taking away, complement, comparing), difference  <u>Choice of operation:</u> addition, subtraction</p> <p><b>Decimals</b>  <u>Operation sense:</u> addition and subtraction</p> <p><b>ARITHMETIC: OPERATIONS INVOLVING NUMBERS</b></p> <p><b>Natural numbers:</b>  <u>Own processes for mental computation:</u> addition, subtraction  <u>Convention processes for written computation:</u> adding two four-digit numbers  <u>Conventional processes for written computation:</u> subtracting a four-digit number from a four-digit number</p> <p><b>Decimals:</b>  Written computation: addition, subtraction; the result must not go beyond the second decimal place</p>	
<p><b>Cross-curricular competencies</b></p>	<p><b>Competency 7: To construct his/her identity</b></p> <p>In two of the stations, the students will perform the activity by choosing the appropriate level of difficulty. They will see for themselves if the task they have chosen is too easy, too hard or just right.</p>	

	<p><b>Competency 8: To cooperate with others</b>          In this lesson, the students will work in pairs to complete different activities. They will quiz and challenge each other. One station requires that all students (6) participate.</p>	
<b>Group size &amp; Materials</b>	<p>Learning Stations – Work in pairs          Chain Reaction – Group of 6</p>	<p>Dice          3 white boards – dry Erasers          “Chain reaction” +/- cards          +/- mystery letters          Flash cards (+/-)          1 timer          Play money          Word problem cards</p>

**Professional Competencies:**

**Competency 3:** To develop teaching/learning situations that are appropriate to the students concerned and the subject content with a view to developing the competencies targeted in the programs of study.

Time	
10 mins	<p><b>Introduction</b></p> <p>Tell the students that they are going to work in stations today. Ask students if they had ever worked in stations. If some have, ask them how it works.</p> <p>Tell the students that each station has a different activity.</p> <p>The four stations are:</p> <ul style="list-style-type: none"> <li>- Addition and Subtraction</li> <li>- Mental Math</li> <li>- Money</li> <li>- Estimation</li> </ul> <p>Explain thoroughly each station. (Each station is described in the development section.</p> <p>The students will spend around 8 minutes at each station.</p> <p>Describe how the transition between stations will work. The rotation will be clockwise. Every time, the teacher turns off the lights, the students should stop what they are doing and put the material back in their place. They have about a minute to get organized for the next station.</p> <p>Form the teams and assign teams to stations.</p>

Time	
35-40 mins	<p><b>Development</b></p> <ul style="list-style-type: none"> <li>- Addition and Subtraction <p>In this center, the students will play a “chain reaction” game. Each card connects to another card through the answer. The students each have a card with an answer and an addition. They first need to find the answer to the addition on a separate piece of paper. Once all participants are done, they start playing. The first student reads his/her addition. The person who has the answer raises his/her hand and read the answer. Then, that person continues by reading his/her addition and another person raises his/her hand if they have the answer. The reaction continues until everybody have read they numbers. The students repeat the same game with subtraction cards.</p> </li> <li>- Mental Math <p>In pairs, the students will quiz themselves using flashcards. The station has cards with different levels of difficulty. The student must by him/herself choose the right level and ask his/her partner to quiz him/her. The students in that center will have a timer. They will record how many questions they had answered correctly before the timer rings. They will try to beat that number. Each student gets 2 turns.</p> </li> <li>- Money <p>In pairs, the students will have different word problems. Again, the students may choose word problems with an appropriate level of difficulty. Each card has a number on the top. Bigger the number, harder it gets. The students can use play money to solve the problems.</p> </li> <li>- Estimation <p>In pairs, the students will come up with their own numbers to estimate. The students roll two dice. One tells them to round to the nearest hundreds or thousands, the second tells them if they have to add or subtract.</p> </li> </ul>
5-8 mins	<p><b>Closure activity</b></p> <p>To finish the activity, the students will have to decode a secret message. Give to each student a 4-digits number to add and subtract. Each answer corresponds to a specific letter written on their sheet.</p> <p>The secret message is written in numbers on the board. Once all students are done, read the first number on the board. Ask who has that number and what letter does it corresponds to. Continue until everybody gave their letters. Fill in the 5 missing letters with the students.</p>

<b>Time</b>	
	<p>The secret message is: The grade four teachers are awesome, but the students are awesomer!</p>
	<p><b>Assessment</b></p> <p>Information assessment for learning will be done during class through observations. The teacher will look at the ability to choose “good problems” that fit best their ability.</p> <p>The students will be given a test covering the same material.</p>
	<p><b>Adaptation</b></p> <p>Some centres are designed to give the students the opportunity to choose for themselves. Some problems are easier than others. (Mental math)</p> <p>The play money is a manipulative that the students may use to help them solve the word problem; they do not have to, if they feel comfortable using the pencil/paper method.</p>
<p><b>Reflection</b></p>	