

CEP 842
Unit Plan for a Diverse Classroom

Practicing Math Facts: Addition and Subtraction

Jenny Luyckx

I have 9 students in my first grade classroom, ranging from 6-7 years old, but one student from the second grade classroom, who is 9, comes over for reading and math instruction on a daily basis. The majority of my class is at grade level or above in mathematics. I do have one student in my class who struggles with math and the second grader also has severe difficulties understanding the concepts. Both students require more one-on-one time than the other students in my class. Although neither child has been officially diagnosed with a learning disability, special accommodations need to be made some of the time for the first grade student and the majority of the time for the second grade student. The students in my class are very motivated to get their work done and I am always giving them praise for their efforts and strong commitment.

The topic of instruction for my unit lesson plan will be Practicing Math Facts: Addition and Subtraction. This will be a whole class unit lesson plan. This topic is important because by practicing addition and subtraction facts and by learning different methods to solving them, the students will form the building blocks for higher mathematical concepts. The students will begin the unit by being introduced to how subtraction problems are related to addition problems. We touched briefly on this subject earlier in the year but never went into great detail. The next lesson will introduce fact families. The students will use what they learned the day before, the relationship between addition and subtraction problems, to be able to see how they relate to fact families. The third day the students will practice addition and subtraction facts up to 12. This will give the students extra practice in learning their math facts and help them with the next day's lesson. On day four the students will be introduced to finding the missing number in an addition and subtraction number sentence. It is important for the students to be comfortable with their math facts. Since some students still have difficulty recalling them from their memory, they will be allowed to use different tools to help them. On day five the students will be putting some of the different strategies into use to solve story problems.

The GLCE's for the state of Michigan that are covered in these lessons are:

- N.MR.01.10** Model addition and subtraction for numbers through 30 for a given contextual situation using objects or pictures; explain in words; record using numbers and symbols; solve.
- N.MR.01.11** Understand the inverse relationship between addition and subtraction, e.g., subtraction “undoes” addition: if $3+5=8$, we know that $8-3=5$ and $8-5=3$; recognize that some problems involving combining, “taking away”, or comparing can be solved by either operation.
- N.FL.01.12** Know all the addition facts up to $10+10$, and solve the related subtraction problems fluently.
- N.MR.01.13** Apply knowledge of fact families to solve simple open sentences for addition and subtraction, such as $___+2=7$ and $10-___=6$.
- N.FL.01.16** Compute sums and differences through 30 using number facts and strategies but no formal algorithm.

Although the students only were adding number up to 12, the GLCE's were still covered and will continued to be covered during a different time of the school year.

Day 1

Instructional Goals: To understand how the elements of a subtraction problem are related. If students know how addition and subtraction facts are related then it makes it easier to use addition to remember subtraction facts.

Materials: connecting cubes, number line, counting bears, whiteboard, marker, Practice Book 229-230

Introduce: Using a whiteboard, the teacher will say the following problems one at a time. The students will either write the problem and the answer or they will just write the answer, depending on what they are comfortable with. Students that need to use counting cubes, a number line, or counting bears can do so to help them solve the problems. When all students have solved the problem the teacher repeat the problem and the class will call out the answer and show their whiteboard. If the teacher notices that an incorrect answer is called out or an incorrect answer is written on the whiteboard, they will go over the problem using the counting cubes, number line, counting bears, or counting up in their head method. The students have previously been introduced to using these four methods in previous lessons.

$$4+1= _, 5-1= _, 3+3= _, 6-3= _, 4-2= _, 5+0= _$$

Getting Started - Related Facts: The teacher will put the students in pairs, with one group of 3 students because of the odd number of students in the class. Each pair will get 20 connecting cubes, 10 of two different colors. The teacher will use the connecting cubes to model the problem $5+3=8$ for the class by connecting 5 cubes of one color to 3 cubes of another color. The addition sentence will then be written on the board. Then the teacher will write the subtraction sentence to show that subtraction is the inverse of addition. Finally the teacher will point out that the facts use the same three numbers. To wrap up "Getting Started", the teacher will ask the following questions: **How are the number sentences alike? How are the number sentences different?**

To differentiate the instruction for some students, the teacher will also model the problem using a number line, counting bears, and counting up in your head method since not all of the students in the classroom will use the connecting cubes.

Teach: Introduce the vocabulary term *related facts*. Explain that a *related fact* is an addition and/or subtraction number sentence that is alike in some way. Pass out PB 229-230. Point out the problem at the top of the page 229 in the green box. The teacher will explain to the children that if they know that $8+4=12$, they will know the related subtraction fact, $12-4=8$ because the facts use the same numbers. For students that do not know the math facts by heart, the teacher will allow them to use counting cubes, a number line, counting bears, or the count up in your head method. The teacher will ask: **What are the related facts for $8+4=12$?** The remainder of the page can be completed either on their own or the students can follow along with the teacher. If the students need to use connecting cubes, a number line, or bears, they will be allowed to.

To differentiate instruction, the teacher may need to give the students the three numbers that will be used for the related fact.

Practice: Explain PB 230 to the students. Tell students they will be doing this page on their own. They will be allowed to continue to use counting cubes, a number line, or counting bears to complete the page. Before the students get started, have everyone circle the + or – on each problem to help them distinguish if they need to find the sum or the difference in each row. Remind students that a related fact uses the same three numbers in the addition and subtraction problems. If they do not have two problems that have the same three numbers in it, then they may need to check the problems to make sure that their answers are correct. For students that have a difficult time finding the related facts, the teacher will help them write the three numbers that are used in each problem above the problem after they have solved it. For example, if the problem is $4+3=7$, the teacher will have the student write a 4, 3, and 7 above the problem. Then they will start at the first problem and check to see if either of the other two problems have the same three numbers. If neither of them do, then they will move on to the second problem and see if it has the same three numbers as the last problem.

For students who complete PB 230 early, the teacher will have another PB page for them to complete. This page will be similar to PB 230. For students who need an additional challenge, the teacher will provide them with Challenge 14.1. The teacher will explain that the students are going to use the three numbers that are given to write an addition fact and a related subtraction fact. Before the students start Challenge 14.1, the teacher will provide the example: 1, 2, 3 – $1+2=3$, $3-2=1$. Possible other addition and subtraction facts could be $2+1=3$, $3-1=2$. The students will be able to complete the challenge sheet on their own.

Assess: Discuss and Write in their Math Journal. The teacher will put up two different problems. One problem will be for students who are not comfortable creating related fact number sentences on their own and the second will be for the students who are able to create them on their own using the three numbers for the related facts. The first problem will be $2+5=$ ____. For this problem, the students will need to figure out the answer to the problem and then write a related subtraction fact. For those students who have difficulty computing the answer in their head, they may use connecting cubes, a number line, or counting bears. For the students who completed the challenge sheet, the following numbers will be written on the board for the students to write an addition number sentence and a related subtraction fact: 4, 6, 10.

Day 2

Instructional Goals: To identify and complete fact families. Students will make fact families with two addition and two subtraction sentences using the same numbers. Knowing the fact family facts will help them remember more facts.

Materials: connecting cubes, number line, counting bears, whiteboard, marker, Practice Book 231-232

Introduce: Using a whiteboard, the teacher will say the following problems one at a time. The students will either write the problem and the answer or they will just write the answer, depending on what they are comfortable with. Students that need to use counting cubes, a number line, or counting bears can do so to help them solve the problems. When all students have solved the problem the teacher repeat the problem and the class will call out the answer and show their whiteboard. If the teacher notices that an incorrect answer is called out or an incorrect answer is written on the whiteboard, they will go over the problem using the counting cubes, number line, counting bears, or counting up in their head method. The students have previously been introduced to using these four methods in previous lessons.

$$6+3= \underline{\quad}, 3+6= \underline{\quad}, 9-6= \underline{\quad}, 9-3= \underline{\quad}$$

Getting Started - Model a Fact Family: The teacher will put the students in pairs, with one group of 3 students because of the odd number of students in the class. Each pair will get 20 connecting cubes, 10 of two different colors. The teacher will write the problem $6+4= \underline{\quad}$ on the board. The students will then use their cubes to model the problem and find the answer. When they have the answer, they need to flip their card over to green. (Students use a red/green card to let the teacher know when they are ready. This is a procedure that has been used from the beginning of the year.) For students that have difficulty, the teacher will say that they need to look at the first number in the addition sentence and count that many cubes and then look at the second number and count that many cubes, then connect the first color of cubes to the second color of cubes. Once the answer is given by the students, the teacher will ask the students to flip the row of cubes over to show $4+6=10$. Then it will be explained to the students that even though the order of the cubes has changed, the numbers still add up to 10. The new number sentence will be written on the board. Next, the students will take the set of 4 cubes away. The teacher will explain that they are now modeling a subtraction fact, $10-4=6$. The students will add the four cubes to make 10 and remove the 6 cubes to show $10-6=4$. The teacher will write both subtraction facts next to the addition facts.

Teach: Introduce the vocabulary term *fact family*. Explain that a *fact family* is certain numbers and facts are related. Pass out PB 231-232. The teacher will work through the model at the top of page 231 in the blue box. The teacher will point out that the two problems on the left are addition and the two problems on the right are subtraction. For The teacher will ask: **What do all of these problems have in common?** The students should answer that the three numbers in the fact family are 3, 8, and 11. The teacher will give each student 20 connecting cubes, 10 of two different colors, to work through the problems on PB 231. Before the students start, the teacher will provide them with the following example: $3+2= \underline{\quad}$, $2+3= \underline{\quad}$, $5-2= \underline{\quad}$, $5-3= \underline{\quad}$. The teacher will show the students how to use the connecting cubes to solve the problems. Then the teacher will show the students how the same three numbers were used in each addition and subtraction number sentence. The teacher will suggest to the students that if they do not have the same three numbers in each problem to rethink the problems through. The remainder of the page can be completed by the students working on their own or they may decide to follow along with the teacher. For students who continue to have problems, the teacher

will provide the three numbers for the fact family and the students need to decide what the missing number is.

Practice: Explain PB 232 to the students. Tell students they will be doing this page on their own. They will be allowed to continue to use counting cubes to complete the page if they need to or they can just use the pictures that are on the page. For students who struggle with this concept, the teacher will help them identify the three numbers that are given for the addition and subtraction number sentences before the problems are solved. Keep in mind that only two numbers are given for each addition and subtraction number sentence before the students solve the problems. For students who complete PB 232 early, the teacher will give them one addition fact and one subtraction fact. The students are to write another related addition fact and another related subtraction fact. For those who need a challenge, the teacher will give them Challenge 14.2. The teacher will explain that the students are to pick three numbers out of the 7 given numbers to write a fact family.

Assess: Discuss and Write in their Math Journal. The teacher will put the following numbers on the board: 3, 9, 12. Students will need to write the two addition and two subtraction sentences for the fact family. For the students that need a challenge, the teacher will ask them to write explaining **What is a fact family?** For students who need differentiated instruction, the teacher will work with them in a small group. Together they will write one addition and one subtraction fact using the three numbers. The students will need to write one other addition and one other subtraction fact using the three numbers. If this is still too difficult, as it will be for one, the teacher will supply the addition and subtraction fact, leaving out one number. For example, the teacher will give $__ + 3 = 12$ and $__ - 9 = 3$. The student will then need to figure out what the missing number would be from the three given numbers used to write the fact family.

Day 3

Instructional Goals: To find sums and differences to 12. Practicing these sums and differences will help students remember these facts.

Materials: connecting cubes, number line, counting bears, Practice Book 233-234

Introduce: Using a whiteboard, the teacher will say the following problems one at a time. The students will either write the problem and the answer or they will just write the answer, depending on what they are comfortable with. Students that need to use counting cubes, a number line, or counting bears can do so to help them solve the problems. When all students have solved the problem the teacher repeat the problem and the class will call out the answer and show their whiteboard. If the teacher notices that an incorrect answer is called out or an incorrect answer is written on the whiteboard, they will go over the problem using the counting cubes, number line, counting bears, or counting up in their head method. The students have previously been introduced to using these four methods in previous lessons.

$$3+7= \underline{\quad}, 8-5= \underline{\quad}, 9-9= \underline{\quad}, 6+4= \underline{\quad}$$

Have the students put a + or – when the teacher asks the following questions: **If I want to find the sum of a problem, am I going to add or subtract? If I am going to find the difference, am I going to add or subtract?**

Getting Started - Modeling Sums and Differences: The teacher will give each student connecting cubes, 12 each of two different colors. The teacher will write the problem $4+5= \underline{\quad}$. Then they will ask the class to think of a way to find the sum. Now they will write $10-3= \underline{\quad}$ and ask to think of a way to find the difference. Now the teacher will write $8+3= \underline{\quad}$ and ask the class to share the different ways they could find the answer. The class will make a list of the ways to solve the problem. Then the teacher will write $12-2= \underline{\quad}$ and ask the class to share the different ways to find the answer. Students will use the connecting cubes to show how the different methods work. For students who have difficulty explaining how they solved a problem, they will just be expected to work through the problems.

To differentiate instruction, the teacher will allow students who are more comfortable using the number line to use it when showing and explaining how they solved the problem. The same can be done for students who are more comfortable using counting bears and counting in their head.

Teach: Pass out PB 233-234. Have students look at the green box at the top of PB 233. Ask the students to read it aloud with the teacher. The teacher will then ask: **What would you do to find the answer to the problem by counting on? What else can I do to find the answer to a problem?** The teacher is looking for count on, count back, use doubles, or related facts. The students will use the strategies of counting on, counting back, using doubles, or related facts to find the sums or differences of the problems on PB 233. To differentiate instruction, the students may use connecting cubes, a number line, drawing pictures, or counting bears to assist them. To challenge students, the teacher will not allow them to use anything other than counting in their head or the memorization of the facts to help them complete the page. Before students get started, the teacher will have them circle the + or – sign in each problem so they are sure of what operation to use.

Practice: Students will complete PB 234. The students will use the strategies of counting on, counting back, using doubles, or related facts to find the sums or differences of the problems on PB 234. If students need to, they may use connecting cubes, a number line, or counting bears to assist them. To challenge students, the teacher will not allow them to use anything other than counting in their head or the memorization of the facts to help them complete the page. Before students get started, the teacher will have them circle the + or – sign in each problem so they are sure of what operation to use. To further challenge some students, they will complete the purple box on their own using the pictures to write the fact family. For the other students, the teacher will help the students determine what the three numbers for the fact family would be. For those that still need further assistance, the teacher will provide them with one addition fact and one subtraction fact and the students will have to write the other addition fact and the other subtraction fact. Some students may even need the teacher to provide them with the three numbers necessary to write the fact family.

Assess: Discuss and Write in their Math Journal. Students will solve the addition and subtraction problems. If students need to use connecting cubes, a number line, or counting bears, they will be allowed to do so.

$$8+4= \underline{\quad}, 3+5= \underline{\quad}, 10-7= \underline{\quad}, 12-6= \underline{\quad}$$

For students who have displayed difficulty, the teacher will have these students solve different addition and subtraction problems.

$$3+4= \underline{\quad}, 2+4= \underline{\quad}, 6-4= \underline{\quad}, 4-3= \underline{\quad}$$

For students who need a challenge, the teacher will have these students solve different addition and subtraction problems.

$$9+3= \underline{\quad}, 6+5= \underline{\quad}, 7+5= \underline{\quad}, 12-10= \underline{\quad}, 10-8= \underline{\quad}, 11-7= \underline{\quad}$$

Day 4

Instructional Goals: To identify a missing number in a number sentence. Finding the missing numbers will help students practice using fact families and learn related addition and subtraction facts.

Materials: counters, Workmat 2

Introduce: Using a whiteboard, the teacher will say the following problems one at a time. The students will either write the problem and the answer or they will just write the answer, depending on what they are comfortable with. Students that need to use counting cubes, a number line, or counting bears can do so to help them solve the problems. When all students have solved the problem the teacher repeat the problem and the class will call out the answer and show their whiteboard. If the teacher notices that an incorrect answer is called out or an incorrect answer is written on the whiteboard, they will go over the problem using the counting cubes, number line, counting bears, or counting up in their head method. The students have previously been introduced to using these four methods in previous lessons.

$$10-3= _, 7+3= _, 11-2= _, 2+9= _, 11-3= _, 8+3= _, 12-1= _, 11+1= _$$

Teacher will then write the problems on the board and show the students how each subtraction fact has a related addition fact. Next, the teacher will tell the students that they can figure out any number that is missing in an addition or subtraction and knowing the fact families can help them do that.

Getting Started - Model Missing Numbers: The teacher will give each student 5 red and 5 yellow connecting cubes. Next, they will write $4+ _ = 6$ on the board. The students will be told that the empty box represents a missing number. The students will now model the number 4 by connecting 4 red cubes. Explain that the number sentence shows that they need a total of 6 cubes. Ask them to connect as many yellow cubes as they need to make the total number of cubes 6. The teacher will then ask the students to tell how many yellow cubes they used and if they put the number of yellow cubes in the number sentence could it tell you the missing number?

To differentiate instruction for students that are having difficulty, tell them another way to solve the problem would be to use a number line. Tell them the 4 is the number they start at and the 6 is the number they would end at. Tell them that the missing number would be the number of jumps it takes them to get from the 4 to the 6.

Teach: Pass out PB 235-236. Have students look at the purple box at the top of PB 235. Work through the model together. The teacher will ask the students: **What does the box in the number sentence stand for? What number would you write in the box to make the number sentence true? How do you know that is the correct number?** Now the teacher will have the students look at the second problem to figure out the missing number. The teacher will ask the students: **How can the first problem in the model help you solve the second problem?** Once again, since the purple box at the top of PB 235 uses counters, the teacher will show the students how to solve the problem using connecting cubes and the number line. The teacher will complete the rest of this page with the students. Some students will complete the page on their own either using counters and a Workmat, a number line, connecting cubes, or using the math facts that they have memorized.

To differentiate instruction, the teacher will demonstrate using connecting cubes and then ask students to show how they would solve the problem using either a number line or counters.

Practice: Students will complete PB 236 on their own. The teacher needs to stress to the students that the box in a problem stands for any missing number and that number can change from problem to problem. The teacher will let the students know that they can use either the counters, number line, or counting cubes. Another option would be for the students to draw pictures for each problem. The teacher will need to demonstrate this strategy so that the students know how to use this strategy. Once the teacher is finished explaining the new strategy, the students will complete PB 236.

For students that need additional help, the teacher will follow the same process that was used on PB 235. For students that need a challenge, the teacher will have them write the numbers that are in the fact family for each of the related addition and subtraction problems (1-7).

Assess: Discuss and Write in their Math Journal. The students will write the following problems and solve them in their math journal. They will tell what strategy they used to solve the problem: counters, number line, connecting cubes, or pictures. The students will then need to explain how they solved the problem to the teacher.

$$3 + \underline{\quad} = 5, 5 - \underline{\quad} = 2$$

To differentiate instruction for students who have a difficult time explaining how they solved the problem, the teacher will allow them to only write the problems and the solution in their journal, along with write the method they used. For others that have a difficult time solving the problems on their own, the teacher will allow the student to explain how they would solve the problem and the teacher will write what they are told.

To further differentiate instruction, the teacher will challenge some students by giving them the following problems.

$$6 + \underline{\quad} = 14, 14 - \underline{\quad} = 8$$

After solving the problems the students will need to write the three numbers used for the fact family.

Day 5

Instructional Goals: To choose the appropriate strategy to solve problems. This will help students choose and use strategies to help them become better problem solvers.

Materials: whiteboards, connecting cubes, number line, counters, counting bears

Introduce: The teacher will write the problems below on the board. The students will write the problems and the solutions on their whiteboard.

$$7+5= \underline{\quad}, 5+7= \underline{\quad}, 12-7= \underline{\quad}, 12-5= \underline{\quad}$$

After all of the students have solved the problems, they are to write the three numbers used for the fact family at the bottom of their board. The teacher will then read each problem one at a time and the students will call out the answers. After each problem answer has been called out, the teacher will go over the different ways the students could have achieved the answer. At the end, the teacher will ask the students what three numbers were used for the fact family.

Getting Started - Select a Strategy: The teacher will give each student 2 color counters and ask them to get out their crayons. Then the teacher will read the following problem to the class: **Molly has 8 puppies. Five puppies have pink bows. How many puppies don't have pink bows?** The teacher will have the students think about a way to solve the problem. Then the class will discuss some of the ways they have learned, such as make a model using counters, cubes, or counting bears; draw a picture; use a number line; count in your head; or use a memorized addition or subtraction fact to write a number sentence. Then have the students choose one of the strategies to solve the problem. Once everyone has solved the problem, have students share their strategy with the class.

For students who have difficulty expressing to a large group how they solved the problem, they can explain their solution to the teacher. For some, the teacher may have to choose one of the strategies to show them how to solve the problem and then they can use another strategy to show how they would solve the problem.

Teach: Pass out PB 237-238. The teacher will have the students look at the model at the top of PB 237. Read the story problem together as a group. The teacher will ask: **What do you need to find out?** Next, the teacher will ask: **What can you do to find the answer?** The students will say the different strategies they have learned, such as, a number sentence; using counters; counting bears; number line; connecting cubes; or drawing a picture. The teacher will call on various students to explain what they did and what their answer was. The teacher will then have the students look down at problem 1. The class will read the problem and show a variety of ways to find the solution. The same thing will be done with problem 2. This will give those who are having difficulty see a variety of ways to solve the same problem.

Practice: Students will complete PB 238 on their own. The students will be given the opportunity to choose different ways to solve the problems. The teacher will not tell the students the different ways to solve the problems and will allow the students to use the same strategies for all 4 problems.

To differentiate instruction, the teacher will point out key words, such as, *are left* and *are there now* to help students decide whether they need to add or subtract. If the students have a difficult time after point out the keys words, the teacher will tell them whether they need to add or subtract.

To challenge other students, the teacher will tell them that they need to model one problem, draw a picture for another problem, and write a number sentence for a third problem. The fourth problem they can choose one of the three strategies to solve it.

Assess: Discuss and Write in their Math Journal. The students will be given a problem and they need to choose one of the strategies used on PB 238 to solve it. The teacher will say and write on the board:

There were 12 apples on a tree. Seven apples fall off. How many apples are on the tree now?

To differentiate instruction, the teacher will follow the same procedure as they did on PB 238 for students who are having difficulty. For students who need a challenge, the teacher will ask them to draw a picture and write a number sentence to show the solution to the problem.

Day 6

Instructional Goals: To provide extra practice and check for understanding of concepts, skills, and problem solving presented in this unit.

Materials: connecting cubes, number line, counters, counting bears

Items 1-10 check for understanding of concepts and skills

Item 11 checks student's abilities to apply the problem solving skill *choose a strategy*

Throughout each lesson for this unit I used a variety of ways to differentiate instruction. I tried to make sure that I not only included ways to differentiate instruction for the students that struggled with the concepts but also for the students who needed an extra challenge. To differentiate instruction for students who have a difficult time with the material, I provided them with a variety of ways to solve the math problem or changed the way the problem was presented to them. For students who needed an extra challenge, I would make the problems more difficult, ask them to solve the problem using a variety of strategies, or have them use mental math to solve the problems. In regards to the Content Enhancement Series, I feel that I incorporated the practice called "content enhancement routines". Out of the several routines listed, the one I used was *The Concept of Anchoring Routine*. This routine connects new information to previously learned information. The only part of this routine that I do not feel was relevant to mathematics was having students paraphrase the information into an integrated summary. Although the students did have a final review on the material covered in this lesson, it was not something they had to paraphrase and complete a summary for.

Since my school does not have a special education teacher and because our classroom sizes are small and we only have one classroom per grade, I would not be able to co-teach this unit with another teacher. However, if I did have the option of having a special education teacher in my room I think I would choose *Station Teaching*. This method would allow the class to be divided into two or three different groups: one station for students who are struggling with the concepts or have a LD, one station for students who are working at grade level and can work independently for the most part, and one station for students who need an extra challenge. One of the teachers could work primarily with the students who struggle or have a LD and the other teacher could go between the students who are at grade level and the students who need an extra challenge.

One way that I could co-plan for this lesson would be to use the Planning Pyramid format. If I had a special education teacher in my classroom, we would be able to sit down and discuss the parts of the unit that all students need to learn. Then we could decide what most of the students will learn and finally, what some of the students will learn. This could also help us decide what the focuses would be within each station. For example, all students would need to master the addition and subtraction facts up to 12, but only most of the students would master filling in the missing number, and only some of the students would be able to solve problems recalling the math facts from memory.

For a final assessment of the unit, I will give the students an Extra Practice/Review-Test sheet. The sheet will have problems on it that requires the students to calculate the sum or difference up to 12, pick out the problems that contain related facts, decide the numbers used in the fact family, write the missing number from an addition or subtraction sentence, and choose a way to solve a story problem. To differentiate instruction for this, I would use similar strategies that were used during the lesson for both students who are having difficulty with the concepts and those who need an extra challenge. For example, students could use counters, connecting cubes, counting bears, a number line, or a drawing to solve the math problems. I would rewrite some of the problems or use smaller numbers to help the students feel more successful. To challenge some, I would ask them to solve problems using more than one strategy or I would give them problems with larger numbers.

Since I did differentiate instruction for the final assessment of this unit, and found that it was successful, I was better able to see how I can adjust other lessons in the future. I will say that it took a lot more time and effort on my part but that the success of the students was well worth it. Not only did all of the students understand the concepts they were taught because I differentiated the instruction but they were able to do so on the first attempt.

