

**Dakota State University
College of Education
LESSON PLAN FORMAT**

Name: Mickeala Boyd
Grade Level: First Grade
School: (DSU Lesson)
Date: _____
Time: Math Class

Reflection from the prior lesson:

We have previously been working on adding within 100 without breaking apart the tens. Students have mastered this skill and are ready to move forward to the next lesson. The students have learned and have shown they understand how to add within 100 without breaking apart the 10s. Throughout the lesson, I will observe conversations, scratch work, and worksheets to make sure students understand accurately. This will help me recognize if I need to make further modifications to the lesson.

Lesson Goal(s) / Standards:

- 1.NBT.C. Use place value understanding and properties of operations to add and subtract.
4. Add and subtract within 100.
 - a. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
 - b. Understand that in adding two-digit numbers (sums within 100) add tens and tens, ones and ones; and sometimes it is necessary to compose a ten.

Practice

1. Make sense of problems and persevere in solving them.
3. Construct viable arguments and critique the reasoning of others.
5. Use appropriate tools strategically.
7. Look for and make use of structure.

Lesson Objectives:

Students will add one-digit and two-digit numbers, composing tens, in whatever way make sense to the student.

Materials Needed:

- materials used during the lesson
1. Connecting cubes in towers of 10 and singles/counters
 2. Add Em' Up Cards (2-digit and 1-digit numbers to 100)
 3. Pencil

4. worksheet (it's like scratch paper for the students to use during the lesson, the image can be found in the lesson.)

Contextual Factors/ Learner Characteristics:

- Two students on IEP's
- One student that has a referral for a behavioral IEP
- 20 students
- Math is in the morning after the students do calendar
- students tend to be excited about math when they use manipulatives
- Students do well with partner work

Connection(s) to Research & Theory:

To start my introduction, I will review what we have been doing, adding within 100 without breaking apart the 10s. This way, students recognize the importance of adding 10s. Students will remember and be able to acknowledge tens in the upcoming lesson. I will show the students images and equations of math problems that relate to them and are complex enough for the students to solve. This way, they find interest and seek to continue to learn about the math lesson. Showing images and relating to students' interests piques their interest and helps them connect to the math lesson. I am making the math overall more intriguing. During the lesson, I will observe and make sure they add and break apart the numbers correctly. Make sure they understand the step you take when breaking apart numbers. This formative assessment will give me the knowledge to figure out if I should modify my instruction.

A. The Lesson

1. Introduction (10 minutes)

getting attention:

Teacher: Hocus Pocus

Students: Everybody Focus

relating to past experience and/or knowledge:

Teacher: Before we begin our lesson, let's remember how we add numbers within 100.

We learned how to add those numbers without composing a 10. We added two-digit numbers to each other, and then we also practiced adding just one-digit numbers to each other.

Questions/Let's Think: Let's think about how we added $15 + 47$. How did we add these numbers together? What step would we take?

Teacher: Turn to your table partner and talk about the steps you would take to solve this problem? (During this time, I would be walking around the classroom to speak with students about the steps taken to solve this equation. I would ask them what type of steps they are taking. What kind of way are they solving the addition problem and talking with them and understanding how they solved it to make sure all the students clearly understand.)

creating a need to know

Teacher: Students today, we will be learning how to add one-digit numbers and two-digit numbers, composing tens in a way that makes sense to you.

Questions: What are one-digit numbers?

Students: one-digit numbers are numbers like 0,1,2,3,4,5,6,7,8,9

Questions: What are two-digit numbers?

Students: a number that has two numbers in them like 10, 20, 30, 40, 50, 55, 23,

Questions: What type of formulas have we used in the past to help solve addition problems?

Students: We can add any number together. You can add a two-digit number to a two-digit number. You can add one-digit and one-digit numbers. We can use the box method, open number lines, counters, and more.

sharing objective, in general terms (10 minutes)

(The purpose of this How Many Do You See is for students to subitize or use grouping strategies to describe the images they see. The images include 10-frames to elicit students' work when adding within 20 and encourage students to think about composing a ten by counting on, which will focus on activities later in the lesson.)

Teacher: If we have no further questions, we will begin learning how to add within 100; composing a ten in whatever way makes sense to you. (First, I will have the students split up into groups. I will have the groups decided already. The students will be paired in groups of two. Making sure the students are paired in groups that I know will be good for each student.)

Teacher: Students, we are going to play a quick game. I have a set of images. I will flash the pictures in front of you on the smartboard and ask you two questions. (I will have the questions written on the board so the students can hear and see the questions.)

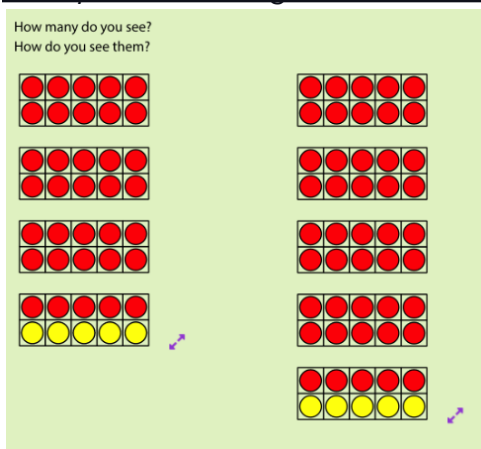
Questions/ Think Aloud: How many dots do you see?

Students: (Depending on the number of dots in the photo, this answer will vary)

Questions/ Think Aloud: How do you see them?

Students: I see them in groups of ten. I see them in groups of 5. I see them in groups of two. (This answer also significantly depends on how the students see the counters in groups.)

Example of the image I will show the students.



Teacher: You all will discuss these questions with your partner. You can draw explain in any way you choose. (After one minute, we will discuss as a class and then do another image. We will repeat the steps above then, think about the question being asked. Discuss with a partner, and then discuss as a class.)

Teacher: The final question is, how are the second and third images the same and different? (The students will compare multiple images to see the difference and similarities. They will explain what they notice is different, for example, how the photos are grouped differently.)

Students: In the third image, all the ten frames are full, but in the second, they are not.

1. Content Delivery (20 minutes)

Teacher: The first problem we will go over is $47 + 8$ (written on the board). I will start with the 47 (*using counters like in the warmup*) and then count on 8 (*using fingers and counters*). This is one way we can solve addition problems. (During this time, I will allow the students to try and solve the problem this way.)

Teacher: Or start with 47 and decompose the eight into 3 and 5. To make a new ten ($47+3+5$) (On the board, I will be using counters. A line to help me break the numbers apart.)

Teacher: Or I could add the ones ($7+8$) and then add on the tens ($15+40$). There are multiple different ways I could add these two numbers together. All these ways are correct.

Teacher: To begin, let's split up into our groups of two. (*Students will be allowed to use materials they choose.*) Let's all start with $8+47$ (*this will be written on the board*); working independently first, then once we think we have solved it, we will be working with a partner. Make sure you're showing your thinking using drawing, numbers, or words. Begin working independently.

(Students will have about 3-5 minutes to work independently)

Teacher: Let's share with our partner our findings

(Students will about 3 minutes to discuss with a partner)

During student's work time: (I will be walking around asking groups questions about the problem. For example, Why did you use this method? How did you get that answer, can you explain?)

Teacher: "Where is the 47 in your representation?"

Students possible answer: The 47 is broken into four tens and seven ones

Teacher: "Where is the 8 in your representation?"

Students possible answer: It is the eight ones

Teacher: "How did you determine the sum?"

Students possible answer: I started by adding up all the ones and then adding that to the 40

Teacher: "How did you find the sum?"

Students possible answer: I added $40+7+8$

Teacher: "How could you use 10-frames or connecting cubes to find the sum without counting by one?"

Student's possible answer: I grouped 47 into four groups of ten. And then grouped 2 and 8 into a group of 10 and then added 5.

Teacher: We have all solved the problem. I have walked around, and you all have done such a great job. You all used multiple different methods to find the sum of $8+47$. I have spoken to a few of you and let you know if you would share in front of the class. Dan, can you come to the board and show everyone how you added $8+47$. *(I would have a few of the students share their findings with the class. Having kids who all solved the problem differently come up and share.)*

Teacher: What is the same about how each student found the sum? What is different?

Students: They all got 55. The first one started at 47 and was counted on by one. The second one added 3 to 47 to make 50, then added the five ones. The last one added the ones first, then added the tens.


Teacher: Now that you are all starting to understand, we will work on another activity. We will be using the add Em up cards. Let get back into our groups of two. *(They all will have access to cubes and other tools they choose to use.)* Each group will get half a deck of the one-digit cards and half a deck of the two-digit cards. Each person has a card with a number on it, either the one-digit or the two-digit. You and your partner will find the sum of your two numbers. Making sure you are adding one-digit numbers to two-digit numbers. Let's do one round together.

Sue and Kyle share your cards. $5 + 24$. Let's find the sum of the numbers. First, I will let you all try. *(2 minutes: independent work time)*. Great work, everyone. You all seem to be understanding how to solve these problems. I will start with breaking the 24 into two 10s and then adding the 4 +5. Finally, I will add these two numbers together $20 +9$. That gives me 29. Now you and your partner do the same. Show your thinking using drawings, numbers, or words. Make sure you are writing down the problems that you are solving. Now we will all play a few rounds. In your groups, find the sum of your numbers. Using the worksheet given. *(5 minutes: partner work time, during this time, I would be walking around the room to help students where needed and make sure they understand how to add a one-digit number to two-digit numbers.)*

Teacher: Switch cards with your partner, and now we will work with our desk partner. Use the worksheet given. *(5 minutes: partner work time I will monitor for students whose sum: does not require composing a new ten. Or requires composing a new ten when adding ones and ones.)*

Example of work: worksheet

Practice Round:
Show your thinking using drawings, numbers, or words.
Equation: _____



Round 1:
Show your thinking using drawings, numbers, or words.
Equation: _____

Round 2:
Show your thinking using drawings, numbers, or words.
Equation: _____

Round 3:
Show your thinking using drawings, numbers, or words.
Equation: _____

Round 4:
Show your thinking using drawings, numbers, or words.
Equation: _____

Round 5:
Show your thinking using drawings, numbers, or words.
Equation: _____

(During the time that the students are working, I will be asking questions)

Teacher: Why did you choose this method?"

Student: I chose it because I found it to be the easiest and the best way to solve the equation.

Teacher: Why are you solving it like this?

Students: this is the way I learned, and I like to use this best when I am adding.

Closure (5 Minutes)

(I will display the problem $45 + 3 = 48$ and $45 + 8 = 53$)

Teacher: What do you notice about these equations?"

Students: Both equations start with 45. One equation shows the sum is 48, and the other shows the sum is 53. The first equation shows four tens, and someone's on both sides. The different equation shows four tens, and someone's on one side, and five tens and someone's on the other side.

Teacher: Sometimes, when adding two-digit and one-digit numbers, the sum has the same number of tens as the two-digit number you start with, like 48 has the same number of tens as 45 in this equation. Sometimes the sum has more tens than the two-digit number, like 53 has more tens than 45 in this equation. Why do you think that happens?"

Students: Sometimes, when you count on, you count to the next ten. When you have more tens than ones, you make a new ten, so the value shows more tens.

B. Assessments Used

Observation – Observe during group work. I will be listening to students talking about how they solved the equations—looking for them to understand how to add two-digit and one-digit numbers—and the interaction between groups.

Worksheet – I will observe the students' understanding of how they wrote out and expressed their knowledge on the worksheet. Seeing how they used visuals, cubes, ten frames, and every method made sense to them.

C. Differentiated Instruction

How will you meet the needs of your learners? This lesson plan is accessible for students with disabilities and access for ELL students?

- Recommendation - I will go around the room while students are working independently and doing partner work, helping students one on one if needed. I will allow students to use counters and ten frames to help them plan out the addition problem.
- Enrichment - I will partner students who understand and addition concept well,
- language support

D. Resources

- past of the lesson lists the materials I used to create the lesson

<https://im.kendallhunt.com/k5/teachers/grade-1/unit-5/lesson-5/preparation.html>