#### **CSUMB College of Education Lesson Plan Template**

**Lesson Title:** Adding and subtracting word problems **Lesson Duration:** 80 minutes Subject: Math Name: Michelle Trujillo School: Rose Ferrero Elementary School Grade: 1st **Class Description** The first-grade class at Rose Ferrero Elementary School comprises 23 students. 13 of those students are girls, and 10 of them are boys. The primary language spoken by 18 students in the class is English. The secondary language spoken by 5 students in class is Spanish. Three of the students are Spanish-English Bilingual. There are different students from different social-economic backgrounds and ethnicities in this class. Nine of the students are Hispanic; ten are Caucasian; one is Asian, and one is African American. About 75% of the students in my class receive free and/ or reduced lunch. **Background** This class has mastered counting to 30. They have already had previous lessons on addition, and subtraction. They know how to add and subtract numbers in Knowledge problems given to them. So I am bringing both addition and subtraction together for this lesson plan. This class also has a clear understanding of addition and subtraction. But having keywords help them (i.e. add, together, increase, combined, plus, sum, both, join, altogether, total; subtract, minus, take away, less/fewer than, difference, decrease, how many are left/remain). Using addition, and subtraction in a word problem is going to be the new thing they will be learning. Students know how to use a number line to add, and subtract. Standards: CA CCSS Math - Content Standards (CA Dept of Education): Content **1.0A.1** Use addition and subtraction within 20 to solve word problems involving

**1.0A.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.

English Language
 Development (ELD)

**1.1.A.1** Exchanging information and ideas with others through oral collaborative conversations on a range of social and academic topics.

#### Central Focus/Learning Target

Overall students will be able to use **addition** and **subtraction** within 20 to accomplish solving word problems by showing their work and be able to explain how and why their solution is correct.

Lesson Learning Objective/Target	Students will be able to use <b>addition</b> and <b>subtraction</b> within 20 to solve word problems by finding the answer to 5-word problems given on an exit ticket. They will need to show their work, and be able to explain how and why their solution is correct.	
Academic Language Objective  Demands Functions Forms	Students will be able to exchange information and ideas with others around them by using key vocabulary terms, and complete sentences during their worksheet activities, <b>think-pair-share</b> and <b>whole-class discussion</b> , as directed by the teacher Key Vocabulary: add, together, increase, combined, plus, sum, both, join, altogether, total; subtract, minus, take away, less/fewer than, difference, decrease, how many are left/remain (given to them on a paper).	
Assessment Plan, Rubric, and Feedback Procedures After Student Work Analysis	The teacher will assess students' understanding based on observations during the different points of the instruction of the lesson, and during the end of class where they will have an exit ticket for mastery of the standard.  Formative #1: When students are in small group instruction, the teacher is informally assessing students of their prior knowledge of addition, and subtraction mentally noting who may need extra support going to the instruction.  Formative #2: The teacher is assessing if students are using the key vocabulary terms to help them break down the word problems, and when writing the reasoning behind how and why they got the answer for their problems.  Formative #3: The teacher will have students go up to the board, demonstrate that they can solve a word problem, and also explain to the class how they got their answer.  Final Summative: They will have an exit ticket to check for understanding	
	*The teacher will pass back the student's worksheets with feedback and pull students into groups on the next day based on their reteaching needs. While students are working on new lesson teacher will pull small groups for math.*	
Materials	<ul> <li>Projector</li> <li>I-pads</li> <li>Represent and Solve Problems- Result Unknown: Lesson Slide Show:         https://docs.google.com/presentation/d/1f8v2G5tPqELKTjp0wXZXCoUVC olzyc7glQSYAVPw7TQ/view#slide=id.ge5e05819b1 0 34     </li> <li>Word problem worksheets (3)</li> <li>Number line chart</li> <li>Students will need whiteboards/ dry-erase markers/erasers</li> <li>Paper with all the key vocabulary (it will have it into two separate columns an addition, and subtraction one)</li> <li>Review Game: <a href="https://www.mathplayground.com/tb">https://www.mathplayground.com/tb</a> addition/index.html</li> </ul>	

#### Instruction

#### (Identity necessary supports/scaffolding/ modifications)

Teacher does:

Warm-up / Activate Prior Knowledge:

- 1. Ask students to get out whiteboards for warm-up
- \*If the warm-up is difficult for over 40% of the class, refer to the number line, and review how to use it when solving addition or subtraction problems. Write a problem on the board and ask students to say the problem out loud. Students should also be familiar with the key vocabulary. To further support addition, and subtraction knowledge ask them to write down the problem and solve it themselves on their whiteboard.

5 minutes of students answering warm-up

- 2. **Present a number line chart** between 1 and 20.
- 3. Get out addition, and subtraction problems on the whiteboard, or the overhead projector. Ask students to solve the problem and then have students chin it when they are done. Do this for each warm-up problem. Teacher can grab 2-3 student works and bring them up to the projector and ask them to come up to the front and explain to everyone how they solved it.

2 minutes to share to partners

- 4. 16-20=?
- 5. 19+42=?

2 minutes to discuss as a class

- 6. 12-26=?
- 7. 15+37=?

1 minute for volunteers

8. Keep 15+37=? on the board, and then change the 37 to a 42. Ask students to share with their shoulder partner and solve the problem together, and to raise their hands when they are done.

[Time Allotted: 10 minutes ]

Model, what they might say to their partner: I know this is the correct answer because \_\_\_\_? Do you agree? (have them

Students do:

- 1. The student will get out the whiteboard, dry-erase marker, and eraser from the desk
- 2. Students will use a number line chart to get help with the warm-up.
- 3. Students will solve the problem given to them, and hold it up on the whiteboard when complete.
- 4 7. Repeat (x3)
- 8. Students will share with their shoulder partners, solve the problem together, and raise their hands when they are done. They have to put their minds together to solve the problem correctly. I want them to use the I know\_\_\_\_\_. math talk framework previously practiced in other lessons.
- 9. Students will volunteer to share what their partner group thought with the class.
- 10. Up to 4 students will volunteer to go up to the board and indicate how they used the number line.
- \*Volunteers will return to their desks\*

# use key vocabulary words, and complete sentences as well).

- 9. Give 1 2 minutes to discuss as a class. Most students should have been able to solve the problem. Mentally note students who did not understand. Then write down on a paper to make possible math small groups later.
- 10. Ask a student to volunteer to come up to the board and show us how they may have used the number line to help them solve the problems.

### Formative (Informal) Assessment

When students are answering with their whiteboards, the teacher is informally assessing the prior knowledge of addition, and subtraction mentally noting who may need extra support going to the instruction. Asking students "Do you agree?." Write problems on the board and ask students to say the problem out loud. Present the key vocabulary words for addition and subtraction on the paper handout. Use think-pair-share and whole-class discussion.

#### Instruction and/or Practice Activity

#### (Identify necessary supports/scaffolding/ modifications)

- 1 minute for key vocabulary paper handout
- 10 minutes for lesson slide show
- 10 minutes for instructions

#### Teacher does:

- 1. Introduce today's goal: Today we will be able to use **addition** and **subtraction** within 20 to solve word problems by finding the answer to 5-word problems given on an exit ticket. They will need to show their work, and be able to explain how and why their solution is correct.
- 2. **Present the key vocabulary words** for addition and subtraction on the **paper handout.** Ask the students to go through them, and ask them if any of them have ever heard any of those words before.
- 4. Put up word problem instructions on the projector.

#### Students do:

- 1. Students will write the day's goal in their math journals.
- 2. Students will practice saying the key vocabulary words, and think of any questions they might have.
- 3. Follow along with the teacher on the lesson slide show, and raise their hand if they have any questions.
- 5. Students will follow along with the teacher for the instructions, and begin the math problem with the teacher.
- 6 / 7. Students will raise their hands to explain their process using the key vocabulary words.

2 minutes calling on students  [Time Allotted: 23 minutes]	<ul> <li>5. Go over instructions on how the word problems will go. Read the directions to the students, have them ecko read. Then begin a practice problem with them. Ask the students questions to push their thinking, and reasoning further. This is where the gradual release of responsibility takes place, and where you will guide them.</li> <li>6. Call on a student to share what the first step they did was.</li> <li>7. Call on a different student for each step.</li> </ul>	
Formative (Informal) Assessment	Teacher is assessing if students are using the key vocabulary words (add, together, increase, combined, plus, sum, both, join, altogether, total; subtract, minus, take away, less/fewer than, difference, decrease, how many are left/remain) in the steps to read the word problem, and solve it. As well as when they are writing down their explanation of how they got the answers, and when they are sharing with others.	
Instruction and/or Practice Activity  (Identify necessary supports/scaffolding/modifications)  1 minute video  1 minute to take to themselves to think of any questions they might have  3 minute example  20 minutes for worksheet activities	Teacher does:  1. Play the video while you are passing out worksheets:  https://www.youtube.com/watch?v=wQd8 v3ja-Yg  2. Pass out worksheets.  3. Do question #1 from the word problem on the worksheet with students, and demonstrate to them the expectations and how it needs to be done (make sure you explain to them to use the number line, make everything look legible, and have them write their sentences on their explanation of how they got their answer while also using key vocabulary word).	1. Students will watch the video. 2. Students will help pass out worksheets. 3. Students will do question #1 with the teacher. 4. Students will do the rest of the worksheets on their own and flip over their papers when they are done. 5. Students need to be able to write down and explain to their small group or whole class their reasoning behind the answers they got for
2 minutes for students to 1, 2, 3 self assess  4. Have students do the rest of the worksheet activities on their own- tell students to flip over their papers when they are done.		their worksheet activities (using complete sentences).  6. Students will self-assess their current understanding of rounding by holding up 1, 2, or 3 fingers.

1 minute for students to break up into math rotation stations  2 have students set up, for their groups.  [Time Allotted: 30 minutes]	5. At the back of the worksheet activities, students need to be able to write down and explain to their small group or whole class their reasoning behind the answers they got for their worksheet activities (using complete sentences).  6. Walk around the room and assess if students are correctly reading the work problems and using their knowledge of the key vocabulary words. When more than 50% of the class is finished call for attention. Ask students to 1, 2, 3 self-assess their own understanding, 1 they need more help they don't get it, 2 they kind of get it but need more practice, and 3 they could teach it to a friend, this is easy. Mentally note who put up a one.  7. Explain to them the math rotation stations. Students will split up into groups based on their 1, 2, and 3 self-assessments. Explain that 1's will be with the teacher first to go over the worksheet. 2's will be getting more practice on their I-pads and 3's will be playing a review game https://www.mathplayground.com/tb add ition/index.html  Group 1: Complete the worksheet with the teacher as a small group.  Group 2: Will pick one from the 3 different worksheet resources to work on.  Group 3: Can use the review game to practice some more or watch a youtube video that solves a problem. https://www.mathplayground.com/tb add ition/index.html  https://www.mathplayground.com/tb add ition/index.html	7. Based on their self-assessment students will separate into groups based on their current understanding of rounding 7a. Students who rated their understanding a 1 will complete the worksheet with the teacher in a small group. 7b. Students who rated their understanding a 2 will get their assigned device and go back to their desk. The digital activity will already be assigned to everyone individually in Google Classroom. Students will have prior knowledge about how to navigate into Google Classroom. 7c. Students who rated their understanding a 3 will get to play a review game to practice some more or watch a youtube video that solves a problem.  8. Students who would like to complete an early finisher activity will have prior knowledge of where early finisher activities are located.
Closure with Outcomes Assessment	Teacher does:	Students do:  1/2. Students in Group 2 will return devices to their charging

2 minutes to put away things  1 minute for volunteers  10 minutes for exit ticket	<ol> <li>Have students put away any devices in use and transition back to their seats.</li> <li>Have Group 1 and Group 3 physically turn in their worksheets, no matter how far they got. Have group 3 put the early finisher work into their Work In Progress folder.</li> <li>Ask students for a volunteer to share how they felt about today's lesson.</li> <li>Have students take out a post-it and solve the exit ticket that is posted on the board.</li> </ol>	stations, and students in Groups 1 and 3 will turn in the worksheets. Students will then go back to their seats.  3. Students will raise their hands to volunteer to share.  4. Students have post-its at their desks. Students will solve the exit ticket and self-assess their understanding again, by turning in the post-it to the green, yellow, or red section on the board.	
[Time Allotted: 13 minutes ]	5. Have students place the post-it with their name on it on the green, yellow, and red self-assessment board.  *Teacher is looking for students that may have been a 1 or 2 in the activity to now be in the green section of the board		
Summative (Formal) Assessment	Students will be able to use <b>addition</b> and <b>subtraction</b> within 20 to solve word problems by finding the answer to 4/5-word problems given on an exit ticket. They will need to show their work, and be able to explain how and why their solution is correct.  *The teacher will pass back the individual worksheet with feedback and pull the students into groups the next day based on reteaching needs. Potentially have other students lead reteach*		

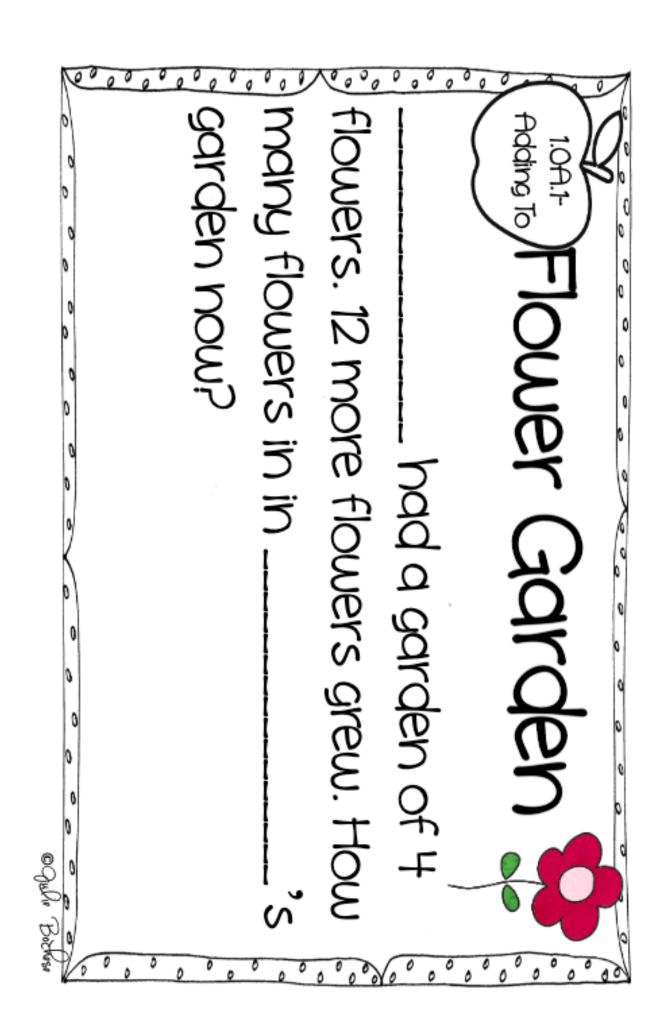
#### Resources:

- <a href="https://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">https://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">https://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">https://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">bttps://docs.google.com/document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY">bttps://document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrR4w8zQEhzhY</a> <a href="bttps://document/d/1LADJ1xsfP2tZPWN-JkbTdY6cwTXIrr4w8zQEhzhY">bttps://docum

### **Rubric:**

Level of Performance	Excellent understanding demonstrated (4)	Strong understanding demonstrated (3)	Unclear understanding demonstrated (2)	Little to no understanding demonstrated (1)
My work	I showed my math knowledge by showing more than needed to solve this problem	My solution is correct and makes sense	Some of my thinking is correct or my answer/solution is correct, but I can't prove it	My solution does not make sense. My work/thinking is incorrect
I can explain	I explained how and why my solution makes sense. I used key vocabulary words, and symbols	I explained what I knew and how I solved it. I used key vocabulary words, and or symbols	I explained what I knew and used some key vocabulary words, and/or symbols	I did not explain my thinking by using key vocabulary words or symbols

9	Name:	Date:
		Quiz: I.OA.I- Comparing ve each problem using the problem solving ategies.
2000000	1.	The San Diego Zoo has 14 elephants and 11 zebras. How many more elephants do they have (than zebras?
66666666	2.	Ken has 10 cousins. Tanya has 16 cousins. How (many more cousins does Tanya have than Ken? (
3666		/2 Comparing (





## **Key Vocabulary**

Addition	Subtraction
★ Add	★Subtract
<b>★</b> Together	<b>★</b> Minus
★Increase	★ Take away
<b>★</b> Combined	★Less/fewer than
★Plus	<b>★</b> Difference
★Sum	★Decrease
★Both	★ How many are left/remain
★Join	
★Altogether	
★Total	