

Grade 1	Lesson: 6-3 Using Related Facts	Reference to English
Math Standard(s): 1.OA.6		Domain: Operations and Algebraic Thinking
Content Objective(s):		Language Objective(s):
Students will solve addition problems by recognizing and recording its parts in small groups. <i>I can solve addition problems by recognizing and recording its parts with a small group.</i>		Students will speak the words inside, outside and in all while adding parts. <i>I can speak the words inside, outside and in all while adding parts.</i>
Essential Understanding: Addition and subtraction have an inverse relationship. The inverse relationship between addition and subtraction can be used to find subtraction facts; every subtraction facts has a related addition fact.		Academic Vocabulary: Listen: Read: Write: Speak: Sentence Frame:
Materials: • Counters (or teaching tool 14)		Language and Word Wall: Related facts
Lesson: Using Related Facts		Instructional Time:
<p>Opening: (minutes) T: "You have learned how to show addition facts and subtraction facts. Today you will write related addition and subtraction facts." T: "Let's start with an addition fact. What is $6 + 5 =$ _____? Raise your hand." • Write the equation on the board. <i>S: will raise their hand and say, "11"</i> T: "Yes, $6 + 5 = 11$. Here are 6 yellow counters 1,2,3,4,5,6, and 5 red counters 1,2,3,4,5. When I join then, I have 1,2,3,4,5,6,7,8,9,10,11. $6 + 5 = 11$"</p> <p>Introduction to New Material (Direct Instruction): (minutes) T: "I can also make a subtraction fact out of these same numbers. How do I write a subtraction sentence? Let's write it in the air together. _____ - _____ = _____. I will write it on the board." <i>S: will write the equation in the air with the teacher.</i> T: "What number is the whole? Is it 11, 6 and 5? Raise your hand." (Teacher will write those numbers on the board) <i>S: will raise their hands and say "11"</i> T: "Yes, 11 is the whole number. It goes in the first blank." (Teacher will write 11 on the board) What are the parts in the equation?" <i>S: student will respond, "6 and 5"</i> T: "Correct, 6 and 5 are the parts. Which number goes in the next blank? Show me with your fingers." <i>S: will show the next number with their fingers.</i> T: "Okay, we will put 6 next, which makes 5 the last part of the equation. (fill in the blanks on the board) Let's look at both equations. $6 + 5 = 11$ and $11 - 6 = 5$. They all use the same whole 11 and the same parts 6 and 5."</p> <p>Guided Practice: (minutes) <i>Use the modeling cycle:</i> Teacher Does: T: "You will be in groups of 2. One of you will say and addition fact. The other will write the subtraction fact that goes with that problem and say it. Then you will switch. For example, I will say $5 + 6 = 11$. (write it on the board) What is the related subtraction fact? I will take the 11 move it to the front, subtract 6 (write it on the board below the addition fact) equals 6."</p> <p>1 Students Does with Teacher: T: "I need one student to come up and help me. " • Teacher will choose a student T: "I will say the addition fact and I need you to write the related subtraction fact on the board and then say it. $4 + 8 = 12$. Right the related subtraction fact." <i>S: will write the related subtraction fact.</i> T: "Yes, $12 - 4 = 8$ is correct, please now say it." <i>S: will say "$12 - 4 = 8$"</i> T: "Thank you, now, please sit down."</p> <p>2 Students Do:</p>		

T: "Now I need 2 students to come up and demonstrate the activity."

- Teacher will choose 2 students to come up.

T: "Student #1 will tell the equation first and student #2 you will write the related subtraction problem and then say it. Please begin."

S: will demonstrate how to say the addition fact, then write the subtraction fact and say it.

T: "Good job, now switch. Student #2 you will say the addition fact, Student #1 you will write the related subtraction fact and then say it."

S: will demonstrate how to say the addition fact, then write the subtraction fact and say it.

All Students Do:

T: "Now I am going to separate you in pairs and you may begin. There are 8 addition facts on each paper. You must complete all of them. Each person doing 4."

- Call out the groups and have papers prepared.
- Walk around the room and make sure the students are saying the equations.

Independent Practice: (minutes)

- Bring the students back together on the carpet.
- Use the document cam or draw the problem on the board.

T: "Now it is your turn to do it on your own. Each of you will be given this worksheet. Let's do the first problem together."

T: "Look at this picture. How many yellow dots do you see on the left? Count together."

S: will count with the teacher. "1,2,3,4,5,6"

T: "Correct, there are 6 yellow dots on the left. How many red dots do you see on the right? Count together."

S: will count with the teacher "1, 2,3,4,5,6,7".

T: "Tell your neighbor how many red dots you see on the right."

S: will tell their neighbor the number of red dots they see on the right.

T: "There are 7 red dots on the right. Tell you neighbor how many dots we have in all."

S: will turn to their neighbor and say "13"

T: "Everyone say it together, how many dots are there in all?"

S: will say "13"

- As the class goes through the process of answering question #1 write the equations on the board (fill in the blanks as you go).

T: "You are right there are 13 dots. When I do the related subtraction fact, where do I put the 13? I need one students to come up and write on the board where to put the 13."

S: one student will come up and write 13 on the first blank.

T: "Yes, we have to put 13 first. Then what? Show me with your fingers which number comes next."

S: will show with their fingers which number comes next in the equation.

T: "The next number can be 6 or 7. Let's choose 7. Then what number comes next? We have 13 subtract 7 equals ____?"

S: will raise their hands and say "6"

T: "Let's say the two equations together. $6 + 7 = 13$ and $13 - 7 = 6$."

T: "Now I am going to give you each a paper. Please do problems 2 - 6 at your desk. You have 5 minutes."

- Teacher will pass out the papers and students will begin the Guided Practice.
- Teacher will walk around the classroom to help the students who need help. If students are finishing faster than 4 minutes, cut it short and bring them back together when most of the students are finished.

T: (clap hands to get the students attention) "Please leave your papers at your desk and let's do questions 2, 4 and 6 together."

- Go through questions 2, 4 and 6 the same way you went through question 1 (faster if the students understand the concept).

Closing: (4 minutes)

- Collect the papers and bring the class back together on the floor. Hand out the student white boards with markers and erasers.

T: "Great Job today! Let's look at question 7. I am going to write the question on the board. I want you to write in on your white board. $5 + 8 = 13$. What is the related subtraction fact?"

S: will write the equation on their white board and show the teacher by raising up their board.

- Give the students enough time to figure out the answer, but not too much time that they start getting board (15 seconds).

T: "I see that most of you are ready. You have written the equation. I will do it on the board and I want you to check to make sure that yours is correct. $5 + 8 = 13$, so $13 - 5 = 8$. Are they the same?"

S: will check their equation.

T: "Let's do a story problem. There are 6 green balloons and 8 blue balloons tied to a fence, draw them on your board."

S: will draw the balloons on their board."

T: "How many balloons are there in all? Write the equation on your board."

S: will write the equation on their board.

T: "Now, read the equation to your neighbor."

S: will read the equation to their neighbor, "6 + 8 = 14"

T: "Good, 6 + 8 = 14. I will write it on the board too."

T: "Let's continue, 6 balloons become loose and fly away. How many balloons are left? Raise your hand if you know what to do next."

S: will raise their hands and say or act out "cross out six balloons"

T: "You are right, every please cross out 6 balloons."

S: will cross out 6 balloons.

T: "Now, please write the related subtraction problem after crossing out 6 balloons."

S: will write the related subtraction fact.

T: "Tell your neighbor the subtraction fact."

S: will tell their neighbor the subtraction fact.

- Finish with question 9.

T: "Good job today!"

Assessment:

Guided Practice