

Grade 1	Lesson: 4-9 Thinking Addition to 12 to Subtract	Reference to English
Math Standard(s): 1.OA.4, 1.OA.6, & 1.OA.8		Domain: Operations and Algebraic Thinking
Content Objective(s):	Language Objective(s):	
Students will write related addition and subtraction facts to 12. <i>I can write related addition and subtraction facts to 12.</i>	Students will say numbers 1-12 while using addition facts to find the related subtraction facts. <i>I can say the numbers 1-12 while using addition facts to help find subtraction facts.</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 fact has a related addition fact.	Academic Vocabulary for Word Wall: Listen: subtraction, minus, difference Read: addition, subtraction Write: Speak: subtraction, minus	
Materials: <ul style="list-style-type: none"> • Counters (12 per pair) • Number Cubes (2 per pair; one with the numbers 1-6, one with numbers 7-12). • Cups (1 per pair) • Whiteboards and dry erase markers • Guided Practice page 150-151 • Problem Solving page 152 	Language and Word Wall: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, addition, plus, equals, sum, subtraction, minus, difference	
Lesson: Thinking Addition to 12 to Subtract		Instructional Time: 35 minutes
<p>Opening: (2 minutes) T: "You have learned how to use addition facts to help you subtract. Today you will continue to do that. You take 4 crayons out of a box of 12 crayons. How many crayons are still in the box?" S: will say "8". T: "How can you use addition to find out?" S: will say "there are 8 left in the box. I know that because 4 and 8 makes 12." T: "What is the addition sentence that would match this?" S: will say "4 + 8 = 12."</p> <p>Introduction to New Material (Direct Instruction): (6 minutes) •Distribute the counters, whiteboards, and dry erase markers to the students. •Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle. •The teacher will write $11 - 5 = \underline{\quad}$ on the whiteboard above the rectangle. T: "What is the subtraction sentence? Tell your neighbor and write it on your whiteboard." S: will say "$11 - 5 = \underline{\quad}$." T: "How can I use my counters and an addition fact to solve this?" •The teacher will draw for counters (circles) in the box on the left. T: "You know the whole is 11 and one of the parts is 5. How many more counters do you need to make 11? Show me with your fingers." S: will show "6". •The teacher will write a 6 as the difference for $11 - 5$. T: "So 6 is the missing part." •The teacher will draw 6 circles (counters) in the box on the right. •Have the students put 6 counters to the right of their 5 counters. T: "What is the addition fact can you show with these counters?" S: will say "$5 + 6 = 11$". •The teacher will write the number sentence $5 + 6 = 11$ on the whiteboard.</p> <p>Guided Practice: (15 minutes) <u>Use the modeling cycle:</u> Teacher Does: •Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.</p>		

T: "For this activity I am going to use the number cubes, counters, and a cup. One of my number cubes has the numbers 7-12. I am going to toss this number cube and put that number of counter in the cup. I rolled a ____, so I am going to put ____ counters in my cup."

•The teacher will toss the number cube and place the correct number of counters in the cup.

T: "The other number cube has the number 1-6 on it. I am now going to toss this number cube and take that many counters out of the cup. I rolled a ____, so I am going to take ____ counters out of my cup. I am going to place the counters I am taking out of my cup and put in the box on the left."

•The teacher will toss the number cube and take the correct number of counters out of the cup.

T: "What is the addition sentence that goes with these counters?"

S: will say ____ + ____ = ____

•The teacher records this addition sentence on the whiteboard.

T: "Now we are going to write a subtraction fact that goes with the counters. Remember that our subtraction sentence would start with the whole. What is the number that I rolled on the first number cube?"

S: will say "____".

T: "How many cubes did I take out of the cup?"

S: will say "____".

T: "So we have ____ - _____. Now we need to find the difference. What is ____ minus ____?"

S: will say "____".

T: "How many counters are still in the cup?"

S: will say "____".

T: "The number after the equals sign is the same as the number of counters still in the cup."

Students Do with Teacher:

•Draw a large rectangle on the whiteboard. Draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.

T: "I need a student to help me."

•Pick a student to come up and demonstrate the activity with the teacher.

T: "For this activity we are going to use the number cubes, counters, and a cup. One of the number cubes has the numbers 7-12. I am going to toss this number cube and put that number of counter in the cup. I rolled a ____, so I am going to put ____ counters in my cup."

•The teacher will toss the number cube and place the correct number of counters in the cup.

T: "The other number cube has the number 1-6 on it. I want you to toss this number cube and take that many counters out of the cup. You rolled a ____, so you are going to take ____ counters out of the cup. Take those counters out of the cup and place them in the box on the left."

•The student volunteer will toss the number cube and take the correct number of counters out of the cup.

T: "I will write an addition sentence that goes with these counters?"

•The teacher records an addition sentence on the whiteboard.

T: " ____ + ____ = ____"

•The teacher will read the addition sentence aloud.

T: "Now you are going to write a subtraction fact that goes with the counters. Remember that the subtraction sentence would start with the whole."

•The student volunteer will write a subtraction fact that goes with the counters.

S: will say "the subtraction sentence for this is ____ - ____ = ____."

T: "Great job! Thanks for helping me."

2 Students Do:

•The teacher will write the following on the whiteboard: ____ + ____ = ____ and ____ - ____ = ____.

•Have the students draw a large rectangle on their whiteboard. Then have them draw a vertical line down the center of the rectangle. So, there are now two parts to the rectangle.

T: "I need 2 students to help me. Raise your hand if you want to help me with this activity."

•Teacher will choose 2 students.

T: "You two are going to demonstrate this activity for us today. Student #1 will toss the number cube with the number 7-12 and then put that many counters in the cup. Student #2 will toss the number cube with the numbers 1-6 and take that many counters out of the cup. Student #1 will then write an addition sentence that matches the counters. Finally, student #2 will write a subtraction sentence that matches the counters."

•Student #1 will toss the number cube with the number 7-12 and then put that many counters in the cup.

•Student #2 will toss the number cube with the numbers 1-6 and take that many counters out of the cup.

• Student #1 will then write an addition sentence that matches the counters.

- Student #2 will write a subtraction sentence that matches the counters.

T: "Thank you for helping. You two may go back to your seats."

All Students Do:

T: "Now you all know how to do the activity. I am going to separate you into groups of two. When I say your name I want you to come up and get your number cubes and cup. Once you have your supplies, then I want you to find a place to sit with your partner. You will have 5 minutes to do this activity with your partner. Make sure you are switching roles, so that you each have an opportunity to roll both number cubes. When I clap my hands I want your attention on me."

- Teacher will walk around the classroom as the students do the activity and make sure they are on task.

T: (Clap to get their attention.) "You have 10 seconds to put your supplies away and sit at the carpet. 10,9,8,7,6,5,4,3,2,1. Good, you all made it."

Independent Practice: (10 minutes)

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."

- Pass out guided practice page 150-151.

T: "7 plus what equals 9?"

S: will say "2".

T: "2 is the other addend. So, you need to trace the number 2."

- Students will trace the number 2.

T: "What does 9 – 7 equal?"

S: will say "2".

T: "The difference is 2. So, trace the number 2."

- Students will trace the number 1.

T: "Now it is your turn to do problems #2, 3, 4, 5, 6, 7, and 8. You will have 4 minutes, when I clap my hands come back to the carpet."

- Students will get to work finishing pages 150-151. While the students are working independently the teacher will walk around the room asking students to answer questions and check for any misconceptions.

- Teacher claps hands and students return to the carpet. Do problems 9, 10, 11, and 12 on the problem solving page together.

Closing: (2 minutes)

- Collect the papers and bring the class together on the floor.

T: "Let's look at question #8 on page 151."

T: "2 plus what equals 10?"

S: will say "8".

T: "8 is your other addend. So, you need to write the number 8."

- Students will write the number 8.

T: "What does 10 – 2 equal?"

S: will say "8".

T: "The difference is 8. So, write the number 8."

- Students will write the number 8.

T: "Great job today!"

Assessment:

Guided Practice