Grade 1	Lesson: 4-7 Thinking Addition	Reference to English

Math Standard(s): 1.OA.4 & 1.OA.8	Domain: Operations and Algebraic Thinking

Content Objective(s):	Language Objective(s):
Students will learn to use doubles addition facts to master related subtraction facts. *I can use doubles addition facts to find the related subtraction fact.*	Students will say numbers 1-12 using doubles addition facts to master related subtraction facts. *I can say the numbers 1-12 while using double addition facts to do the related subtraction facts.*
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:** doubles **Read:** addition, subtraction, doubles **Write:** **Speak:** addition, plus, equals, subtraction, minus, doubles
Materials: • **Number Cards 0-11 (1 set per child)** • **Number Cards 12-20 (1 set per child)** • **Counters (12 per child)** • **Whiteboards and dry erase markers** • **Guided Practice page 142-143** • **Problem Solving page 144**	**Additional Lesson Vocabulary:** addition, plus, equals, sum, subtraction, minus, difference, doubles

Lesson: Thinking Addition	Instructional Time: 40 minutes

Opening: (2 minutes)

T: **"You have learned how to use doubles to find near doubles. Today you will use doubles to help solve subtraction problems. Who can think of some things that come in doubles?"**

S: Answers will vary (shoes, eggs in a carton, wheels on a car, crayons in a box, etc.).

T: **"Is every number a double?'"**

S: will say "No".

T: **"You are right. Every number is not a double. Only those numbers that can be made by adding another number to itself is a double. For example, 4 is a double, because it is the sum of 2 and 2."**

•The teacher will write the number sentence 2 + 2 = 4 on the whiteboard.

Introduction to New Material (Direct Instruction): (6 minutes)

T: **"Is the number 6 a double?"**

S: will say "yes."

T: **"How can you use counters to find out? Tell your neighbor."**

S: will say "I can show 6 counters as two groups of 3 counters. So, 6 is the double of 3".

T: **"How can you use doubles to help you find 3 less than 6?"**

S: Answers will vary.

•Distribute the counters, whiteboards, and dry erase markers to the students.

T: **"We are going to use our counters to decide whether a number is double or not."**

•The teacher will get out 10 counters.

T: **"How can we use these counters to find out whether the number 10 is double?"**

•The teacher will make two equal groups of counters.

T: **"How many counters are in each group?"**

S: will say "5".

T: **"How do you know that 10 is a double?"**

S: will say "because there are two equal groups of counter; the same number of counters are in each part."

T: **"What addition fact for doubles can you show with these counters?"**

S: will say "5 + 5 = 10."

•The teacher will write the number sentence 5 + 5 = 10 on the whiteboard.

T: **"If you know that 5 + 5 = 10, what subtraction fact for doubles can you write?"**

S: will say "10 − 5 = 5."

•The teacher will write the number sentence 10 - 5 = 5 on the whiteboard.

Guided Practice: (15 minutes)

Use the modeling cycle:

Teacher Does:

T: **"For this activity I am going to use the number cards and these 12 counters. I am going to take and make a pile with all of the**

number cards 2-12. I am going to take the cards with the numbers 0-1 and 13-20 and put them back in the baggie. I will not be using these number cards for this activity. Then I am going to place the cards with the numbers 2-12 face down in a pile. I am going to use the number cards to determine the number of counters I will place on my board."

•Take all of the number 0-1 and 13-20 cards out of the deck of number cards. Then shuffle the number cards and place them face down in a pile.

T: "I am going to flip over a number card. The number on this card tells me how many counter I will place in my pile. I picked a ____. So, I will put ____ counters on a pile."

•Teacher flips over the top card in the pile and puts the correct number of counters on a pile.

T: "I am going to use these counters to decide whether the number ____ is a double or not. How can we use these counters to find out whether the number ____ is double?"

•The teacher will make two equal groups with the counters.

T: "How many counters are in each group?"

S: will say "____".

T: "Do each of the groups have the same number of counters?"

S: will say "yes or no."

•If the number on the number card is <u>not</u> a double, then draw again. If the number is a double, then do the following:

T: "How do you know that ____ is a double?"

S: will say "because there are two equal groups of counter; the same number of counters are in each group."

T: "What addition fact for doubles can you show with these counters?"

S: will say "____ + ____ =____."

•The teacher will write the number sentence ____ + ____ = ____ on the whiteboard.

T: "If you know that ____ + ____ = ____, what subtraction fact for doubles can you write?"

S: will say "____ − ____ = ____."

<u>Students Do with Teacher:</u>

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 will continue to use our number cards with the numbers 2-12. I am going to flip over a number card. The number on this card tells me how many counter I will place in my pile. I picked a ____. So, I will put ____ counters on a pile."

•Teacher flips over the top card in the pile and puts the correct number of counters on a pile.

T: "Now, I want you to use these counters to decide whether the number ____ is a double or not. How can we use these counters to find out whether the number ____ is double?"

S: will say "we can see if they will make two equal groups."

•The student volunteer will see if he/she can make two equal groups with the counters.

T: "How many counters are in each group?"

S: will say "____".

T: "Do each of the groups have the same number of counters?"

S: will say "yes or no."

•If the number on the number card is <u>not</u> a double, then draw again. If the number is a double, then do the following:

T: "How do you know that ____ is a double?"

S: will say "because there are two equal groups of counter; the same number of counters are in each group."

T: "I want you to write an addition fact for the double that will match these counters."

S: will say "____ + ____ =____."

•The student volunteer will write the number sentence ____ + ____ = ____ on the whiteboard.

T: "I know that ____ + ____ = ____. So, now I need to write a subtraction fact for this double."

S: will say "____ − ____ = ____."

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

<u>2 Students Do:</u>

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

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 flip over a number card and put that many counters in a pile. Student #2 will see if he/she can make two equal groups with the pile of counters. If students #2 cannot make two equal groups with the pile of counters, then the pair starts over. If student #2 can make two equal groups with the pile of counters, then he/she will write an addition fact for the double that matches the counters. Finally, student #1 will write a subtraction fact for this double."

•Student #1 will flip over a number card and put that many counters in a pile.

•Student #2 will see if he/she can make two equal groups with the pile of counters.
•If students #2 cannot make two equal groups with the pile of counters, then the pair starts over.
• If student #2 can make two equal groups with the pile of counters, then he/she will write an addition fact for the double that matches the counters.
•Student #1 will write a subtraction fact for this double.
T: "Thank you for helping. You two may go back to your seats.

All Students Do:
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 cards. 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 pick a number card. 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: (15 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 142-143.
T: "What does 2 + 2 equal?"
S: will say "4".
T: "The sum is 4. So, you need to trace the number 4."
•Students will trace the number 4.
T: "What does 4 – 2 equal?"
S: will say "2".
T: "The difference is 2. So, trace the number 2."
•Students will trace the number 2.
T: "Now it is your turn to do problems #2, 3, 4, 5, 6, 7, 8, 9, and 10. You will have 5 minutes, when I clap my hands come back to the carpet."
•Students will get to work finishing pages 142-143. As they 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 11, 12, and 13 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 143.
T: "What does 5 + 5 equal?"
S: will say "10".
T: "The sum is 10. So, you need to trace the number 10."
•Students will trace the number 10.
T: "What does 10 – 5 equal?"
S: will say "5".
T: "The difference is 5. So, trace the number 5."
•Students will trace the number 5.
T: "Great job today!"

Assessment:

Guided Practice