Applying Strategies to Add within Ten

Teacher Guide

Duration: 30–45 minutes

Standards for Mathematics

MA.K.3.C
Explain the strategies used to solved problems involving adding and subtracting within 10 using spoken words, concreted and pictorial models, and number sentences.

MA.1.3.D
Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.

Learning Outcomes

- Find the number of objects that make 10 when added to any number 1 through 9.
- Apply strategies to add within 10.

Key Vocabulary

- How far
- Pair
- Strategy

Materials

- Memory Make Ten Cards (1 set per student, pair, or small group)
- Memory Make Ten Cards – Large (1 set for the teacher)
- Envelopes or paper bags (1 per student)
- Sets of 10 counters (1 set per student, pair, or small group and one set for the teacher)

Activity Preparation

- Preview the lesson and decide if you will have students work independently, in pairs, or in small groups.
  - You will need to prepare materials accordingly. (This lesson describes the students working independently. If needed, change the wording to fit the grouping you selected.)
- Prepare sets of Memory Make Ten Cards (1 set per student, pair, or small group). (See Blackline Master after this activity.)
  - If a printer is not available, these cards can be reproduced by hand.
- Prepare one set of Memory Make Ten Cards – Large for the teacher. (See Blackline Master after this activity.)
- Gather envelopes or paper bags to store each set of Ten Frame Cards.
- Gather sets of 10 counters (1 set per student, pair, or small group).

TEACHER DO: Display your set of large Memory Make 10 Cards where students can see them.

TEACHER SAY: *Today we are going to play a new game called Memory Make 10. I have a set of Memory Make 10 Cards that look like little ten frames. Each card represents a number 0 through 10. My goal is to turn over two cards that, when I put them together, make the number 10. I also have a set of 10 counters to help me with my math. Today, we are going to begin playing with all the cards facing up.*

TEACHER DO: Take the cards and show students how to set them in a rectangle in front of them with all the cards face up.

TEACHER SAY: *I see that I have a 1 card. What number goes with 1 to make 10? There are two strategies I can use to figure out what goes with 1 to make 10. I can use my counters and place a 1 on the 1 card, and then count how many I have left. Let's try that first.*

TEACHER DO: Place one counter on the 1 card.

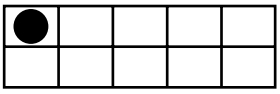
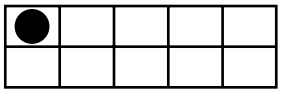
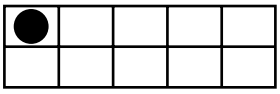
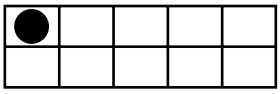
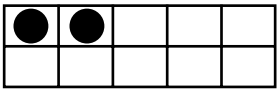
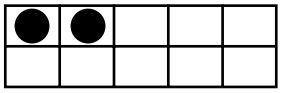
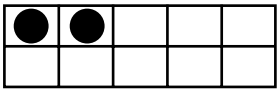
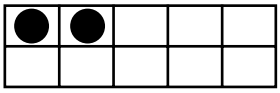
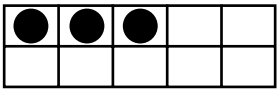
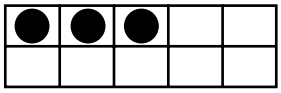
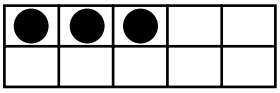
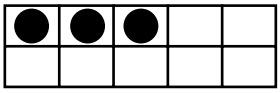
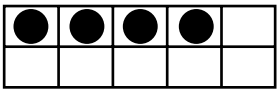
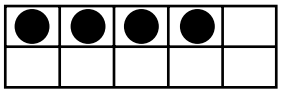
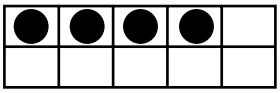
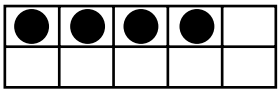
TEACHER SAY: *Now I can count how many I have left: 1, 2, 3, 4, 5, 6, 7, 8, 9. That tells me that I can make 10 by adding 1 and 9. The other strategy I can use is to look at the ten frame. When I look at the ten frame on the 1 card, I see that there is one dot. If I count the blank squares…*

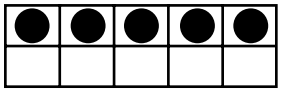
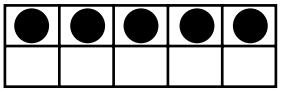
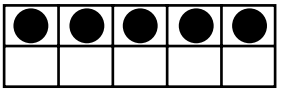
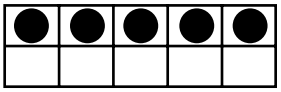
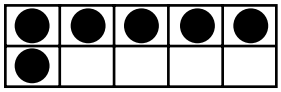
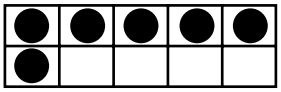
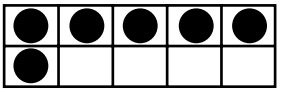
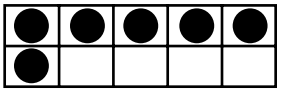
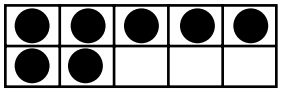
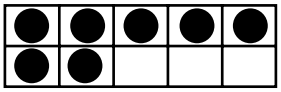
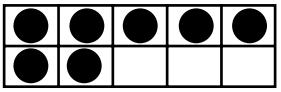
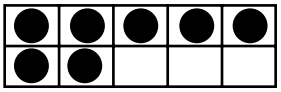
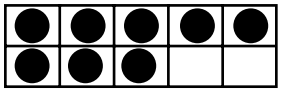
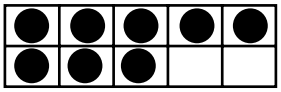
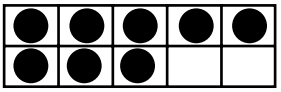
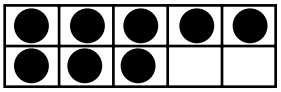
TEACHER DO: Point to the blank squares while counting.

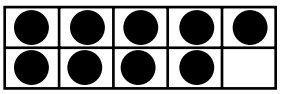
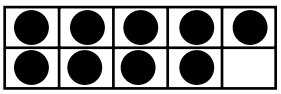
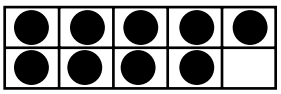
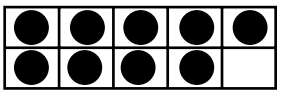
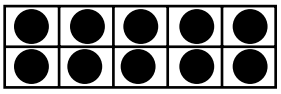
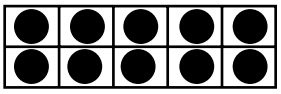
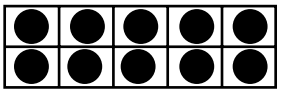
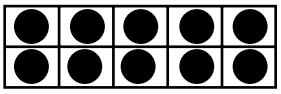
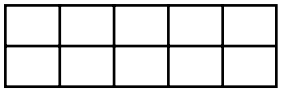
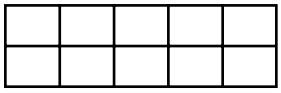
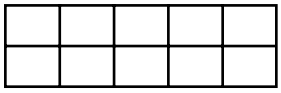
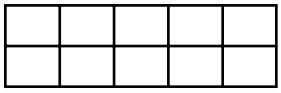
TEACHER SAY: *… I can count how many do not have dots: 1, 2, 3, 4, 5, 6, 7, 8, 9. This is a way for me to double check that 1 and 9 make 10. Then I can find all of the 1 cards and match them with the 9 cards and make a stack over here.*

TEACHER DO: Make a stack of the 10s matches face down on the side.
TEACHER SAY: *Now, let's try it with another number.*
TEACHER DO: Repeat the process with another number. Model both with counters and by counting the blank squares on a ten frame.
Note to the Teacher: If this game is too challenging for the class to play independently, work together as a class and play a couple of rounds together or divide the set of cards in half. Alternatively, if students are ready, they can also play with the cards face down so that they also have to recall where each number is placed.
TEACHER SAY: *Now it is your turn to try. First, I will hand out envelopes with your cards inside and some counters.*
TEACHER DO: Hand out student card sets and counters.
TEACHER SAY: *Take your stack of cards and lay them in front of you like mine. Remember to use your counters to help you count.*
STUDENTS DO: Play the game.
TEACHER DO: Walk around and watch how the students play. Pay attention to who is using the counters and who is counting the empty squares.
TEACHER SAY: *Wonderful job playing Memory Make 10 today. Please stack all of your cards into one pile and place them in the envelope with your name on it.*
TEACHER DO: See that students place cards in envelopes. Collect counters and envelopes with cards in them.
TEACHER DO: Bring teacher set of cards to share.
TEACHER SAY: *Excellent work today making 10 pairs. A pair is something that goes together, like a pair of socks or a pair of earrings. A 10 pair is two numbers that go together to make the number 10.*
TEACHER DO: Turn over one card.
TEACHER SAY: *If I have _____ (number on card), what number would be its pair? What number goes with _____ (number on card) to make the number 10? Please raise your hand if you know. Remember, you can look at the ten frame on the bottom of my card to help you.*
STUDENTS DO: Raise their hands to name the card's pair.
TEACHER DO: Repeat this with several different cards.
TEACHER SAY: *Wonderful work today with 10 pairs.*

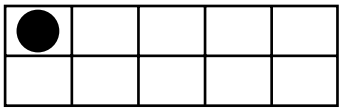
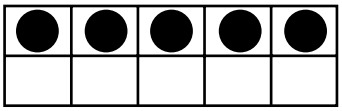
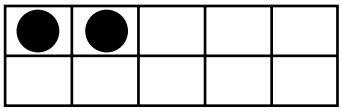
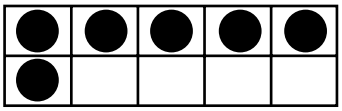
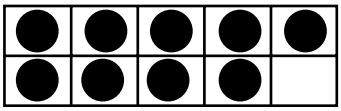
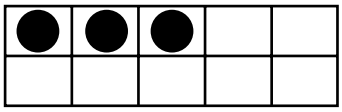
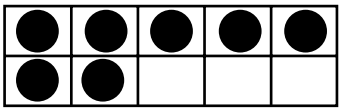
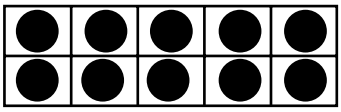
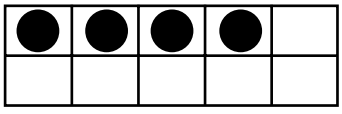
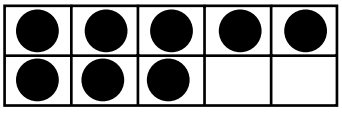
Memory Make Ten Cards (4 sets)

1 	1 	1 	1 
2 	2 	2 	2 
3 	3 	3 	3 
4 	4 	4 	4 

5 	5 	5 	5 
6 	6 	6 	6 
7 	7 	7 	7 
8 	8 	8 	8 

9 	9 	9 	9 
10 	10 	10 	10 
0 	0 	0 	0 

Memory Make Ten Cards - Large

1 	5 	
2 	6 	9 
3 	7 	10 
4 	8 	0