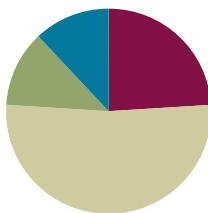


## Lesson 22

**Objective:** Solve subtraction story problems with representative objects.

### Suggested Lesson Structure

■ Fluency Practice	(6 minutes)
■ Application Problem	(3 minutes)
■ Concept Development	(13 minutes)
■ Student Debrief	(3 minutes)
<b>Total Time</b>	<b>(25 minutes)</b>



### Fluency Practice (6 minutes)

- Find the Card **PK.CC.2, PK.CC.4** (4 minutes)
- Miguel Monkey **PK.CC.1** (2 minutes)

### Find the Card (4 minutes)

**Materials:** (T) Numeral cards 6–9 (Lesson 1 Template), (S) baggie of picture cards from Lesson 21 with one 9-card added (Fluency Template), construction paper work mat

**Note:** Students maintain fluency practice with counting pictures arranged in varied formations and reading written numbers 6–9.

Pass out one baggie to each student.

T: Lay your cards on your work mat.

T: (Show the 9 card.) What number is this?

S: 9.

T: Find the card with 9 things. (Provide time to count.)

T: Hold up the card when you find it. (All the 9 cards are balls. Check to see that children are holding a card with balls.)

As time permits, repeat for 6 (checking for fruit), 7 (vegetables), or 8 (pond animals).

### Miguel Monkey (2 minutes)

**Note:** This activity targets one of the core fluencies for Pre-K students, rote counting to 20.

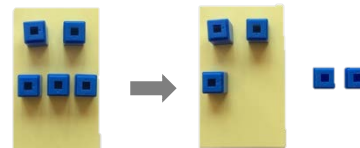
T: Miguel Monkey is ready to swing again. Pretend you're Miguel Monkey. Reach your arms up to grab the vines and swing through the jungle as we count to 20.

Demonstrate stretching one arm at a time into the air, mimicking a monkey grabbing vines and swinging through the jungle. Count to 20, keeping the movement synchronous with the count. If time permits, count again but stop at 19, challenging students to pay attention to the count sequence.

### Application Problem (3 minutes)

Materials: (S) a small box lid or index card (car), 5 disconnected linking cubes

Say, “Put five people in your car (students put linking cubes on the index card). Drive your car to school to drop off two people.” Model sliding your index card a few inches and take out two cubes (people). Ask, “How many people are left in the car?” (3.)



Repeat the activity after filling up the car again with 3, 4, or 5 passengers.

Note: This Application Problem reviews *adding to* and *taking from* situations to 5 and supports the concept of objects representing real things.

### Concept Development (13 minutes)

#### Part 1: Concept Introduction

Materials: (T) 5 linking cubes of the same color (S) 5 linking cubes of the same color



$$5 - 1 = 4$$

1. Tell students that they are going to work in the train yard. Say, “The big engine was pulling five cars.” Make a 5-train to show the cars, and invite students to do the same.
2. Say, “The last car was taken off.” Take off one cube and have children do the same.
3. Have students ask their neighbor a *how many* question about the train cars.
4. Quickly draw the 5-train on the board and cross off one car. Write the number sentence beneath as students say aloud (do not use units), “5 take away 1 equals 4.”
5. Ask, “What does the 5 tell us (point to the numeral 5)? What does the 1 tell us (point to the numeral 1)? What about the 4?” Make sure that children can put the story back into the train context, not just tell about the cubes.
6. Repeat Steps 1–5 with the following story: The big engine now has four cars. The last two cars were left in the shed.
7. If time permits, encourage students to make up a different subtraction story using the two cars that are left.

MP.4



#### NOTES ON MULTIPLE MEANS OF REPRESENTATION:

English language learners would benefit from frequent checks for understanding of word problems. One possibility is to have students repeat or rephrase the problem before solving, preferably with a partner who has strong language skills and can clarify misunderstandings.

**Part 2: Practice**

Materials: (S) 5 linking cubes

Pair children to work together.

1. Say, "Use your cubes to show this train story: Four passengers are riding the train. At the next stop, one passenger gets off. How many passengers are on the train now?"
2. Have partners compare their trains and share their answers. As a class, say the subtraction sentence, "4 take away 1 equals 3."
3. Have partners tell one another what each numeral in the subtraction sentence means in the story and with the cubes.
4. As time permits, repeat Steps 1–3 with other subtraction stories such as: There are five passengers in a train car. Three passengers move to another car. How many passengers are left?

**Student Debrief (3 minutes)**

**Lesson Objective:** Solve subtraction story problems with representative objects.

The Student Debrief is intended to invite reflection and active processing of the total lesson experience. It is also an opportunity for informal assessment. Consider taking anecdotal notes or using a simple checklist to note each child's progress toward meeting the lesson objective.

As students complete the Practice portion of the Concept Development, listen for misconceptions or misunderstandings that can be addressed in the Debrief.

You may choose to use any combination of the questions below to help students express ideas, make connections, and use new vocabulary.

- How did we solve the subtraction stories today?
- What is different about using cubes instead of train cars to solve a subtraction story?
- (Repeat one of the passenger stories.) Use your fingers to solve the passenger story. What's the same about using cubes? What's different?
- (Remind students of the first train story and show the linking cube train. Tell a similar story starting with 5 and taking away 1. Show the train.) What is the same about these 2 trains?

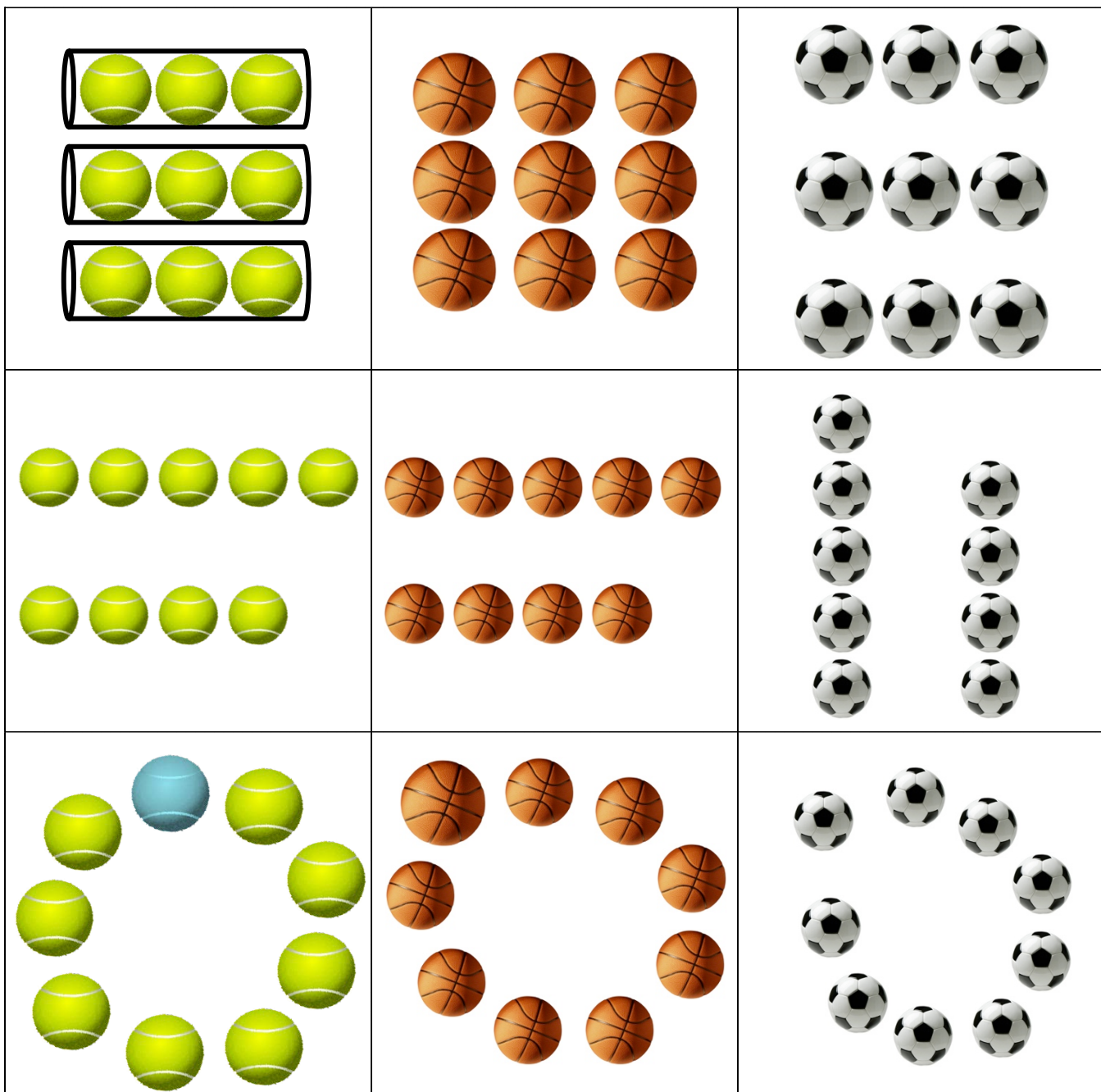
**CENTER CONNECTION:**

Use the symbol cards from Lesson 18 (shown) and linking cubes of two different colors for the center.



Have students make trains that match the cards. "These two green cubes stand for the hearts, and this yellow cube stands for the circle." Then have students break their trains at the color separation and hide one of the parts.

Cut along dashed lines. Add one 9-card to the baggies of 6 and 8-cards that were used in Lesson 21.



picture cards: 9