# Discover! Math





## **Lesson Objectives**

By the end of this lesson, your student will be able to:

 subtract within 100 using strategies and algorithms based on place value and properties of operations

## Supporting Your Student

#### **Explore**

Do not hesitate to use counters, objects, or base 10 blocks to work through this section together. For kinesthetic and visual learners, base 10 blocks or counters can help them actually see the problem.

#### Read (Think Addition Strategy)

The think addition strategy is a great conversation strategy. Allow your student to use extra paper, if needed, and discuss their ideas. You can ask some prompting questions like, "What is the whole?" and "What parts are added together to make the larger number?"

#### Take a Closer Look

This section builds upon the Explore questions. Encourage your student to refer back to their work from the Explore section and use the answers to help them, if needed.

#### Read (Borrowing Strategy)

The borrowing strategy is the traditional way students are taught to subtract. It can be difficult to visualize. If your student is struggling, use the base 10 blocks and have them physically trade a 10 block for 10 ones to help them see the action of borrowing.

# **Skill Builder** (Operations and Algebraic Thinking)

This section uses addition and subtraction in multistep problems. Before starting this section with your student, it would be helpful to discuss that they will be looking for two equations. You can have them circle the numbers in the word problem to make sure they do not miss a number. They can also circle or underline the words that help them recognize what sign to use. Examples: How many more? (Addition), How many are left? (Subtraction)

## **Learning Styles**

**Auditory learners** may enjoy narrating their answers out loud, especially questions that ask, "Why?" Allow them to answer orally.

**Visual learners** may enjoy creating graphs from the word problems to be able to see the pieces of the two-step word problems clearly.

**Kinesthetic learners** may enjoy using highlighters or markers to solve equations and especially for keeping track of place value.

# **Booster Activity**

#### **Counting by Twos**

You will need a box of paper clips for this activity. Have your student create pairs of paper clips. They can create as many pairs as they would like. Next, have your student try to guess how many paper clips there are all together.

Here are some prompting questions to get your student thinking.

- 1. How many pairs of paper clips do you see?
- **2.** Did you count by twos or count the number of paper clips?
- **3.** What is another way you could sort the paper clips?

Encourage them to think about grouping by fives or tens.

#### **Extension Activities**

#### Flip Three Memory

This activity requires a deck of cards. Have your student lay out an array of 15 cards face down. Players will flip over three cards and try to make an addition or subtraction equation from the cards. For example, if player one flips over two, three, and five, their equation is 2 + 3 = 5. They get to keep those cards. If they cannot make an equation, they flip them back over, and it is the next player's turn. The player with the most cards at the end of the game wins.

# **LESSON 5**

# **Subtraction Within 100**

#### Create (Bingo Board)

This activity requires some drawing paper and note cards. Have your student create their own bingo board. Have them draw five vertical lines and then five horizontal lines. In the boxes of the bingo board, Have them write any numbers they choose, from 1 to 99.

Now, on the note cards, have them write equations that equal the numbers in the boxes. Ex: If 32 is on the bingo card, your student could write 30 + 2 on the note card.

Once they have created their bingo card and calling cards, your student can play with a friend or with you.

# Answer Key

#### In the Real World (Grocery Store)

22 cents

#### **Explore**

Drawing box: Answers will vary. Your student can present any strategy they choose to calculate 64 – 9 = 55 including an equation, a number line, a picture, counting backward, addition, or skip counting.

Another strategy: Answers will vary. Possible answers: counting backward, using addition, skip counting

Business name: Answers will vary. Possible answers: Art by Ruffael, Van Dog-Gogh's Drawings, Pup-casso's Paintings, Salvador Dog-i

#### Read (Think Addition Strategy)

What can I add to 24 to get 64?

40 crayons

12 crayons

#### **Practice** (Think Addition Strategy)

- 1,24
- 2.22
- **3.** 13

#### Take a Closer Look (Think Addition)

What can I add to 24 to get 32?

#### Read (Break Apart Strategy)

30, 10

2, 1

21

#### Practice (Break Apart Strategy)

- 1.42
- 2. 42
- **3.** 22
- 4, 55
- 5, \$52

#### In the Real World (Bus Passengers)

22 passengers

Answers will vary. Possible answers: I skip counted backward by fives, I skip counted backward by tens.

#### Read (Borrowing Strategy)

37

#### Practice (Borrowing Strategy)

- 1,56
- **2.** 27

#### Practice (Subtraction)

- **1.** 13; Answers may vary. Possible answer: break apart
- 2. 26; Answers may vary. Possible answer: borrowing
- **3.** 31; Answers may vary. Possible answer: think addition
- **4.** 27 blocks; Answers may vary. Possible answer: borrowing
- **5.** 21 shirts; Answers may vary. Possible answer: think addition
- **6.** 53 passengers; Answers may vary. Possible answer: break apart

### Skill Builder (Number Operations in Base 10)

- **1.** 35; 35 + 10 = 45
- **2.** 42; 42 + 25 = 67
- **3.** 46; 46 + 43 = 89
- **4.** 22; 22 + 12 = 34
- **5.** 41; 31 + 41 = 72

# **Skill Builder** (Operations and Algebraic Thinking)

- **1.** 41 seats
- 2. 11 chicken nuggets
- **3.** 47 cans

#### **Show What You Know**

- **1.** 69 crayons
- **2.** 62 crayons
- **3.** 48 crayons