

# SUBTRACTION STRATEGY

# USE ADDITION

## BUILDING FLUENCY THROUGH FLEXIBLE THINKING AND EFFECTIVE STRATEGIES

### NUMBER BONDS AND FACT FAMILIES

**EXAMPLE**

We can show parts and wholes with a number bond model.

5 and 2 are the parts. 7 is the whole.

$5+2=7$      $7-2=5$   
 $2+5=7$      $7-5=2$

Complete the number bond. Then write an addition and a subtraction fact family for each one.

 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$	 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$	 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$
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Write three different options for what the empty space in the number bond could represent.

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### THINKING ABOUT PARTS AND WHOLE

Follow the steps to solve the problem.

Two kids are sharing some candies. Each kid has his own pile of candy.

**What are the parts?**

**What is the whole?**

Let's add some more information:

Two kids are sharing 12 candies. Each kid has his own pile of candy. Amir has 5 candies in his pile.

**What are you wondering?**

Let's add a question:

Two kids are sharing 12 candies. Each kid has his own pile of candy. Amir has 5 candies in his pile. How many candies does Shilo have?

**Draw a picture to solve the problem.**

**Write a subtraction sentence to represent the problem.**

**Explain how you could use addition to solve the problem.**

### ADDITION AND SUBTRACTION FACT FAMILIES

**EXAMPLE**

We can use two parts and a whole to form two addition sentences and two subtraction sentences.

$4+3=7$      $7-3=4$   
 $3+4=7$      $7-4=3$

Write two addition sentences and two subtraction sentences for each model.

 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$	 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$	 $\square + \square = \square$ $\square + \square = \square$ $\square - \square = \square$ $\square - \square = \square$
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### MATH TALK

Jacob has a box of crayons. He gives his little sister some of the crayons.

What is happening in this problem?

What questions do you have?

### SUBTRACTION STRATEGY

## USE ADDITION

I can use addition when I subtract.

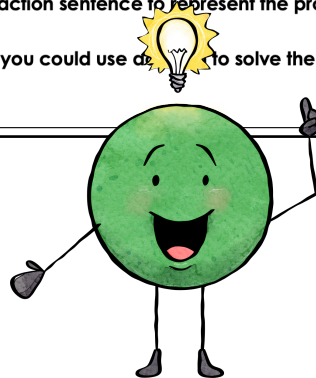
$10-3=?$

10

?

Think: "What can I add to 3 to make 10?"

CREATED BY  
SHELLEY GRAY



# About This Resource

This subtraction strategy unit provides practice with the **use addition** strategy.

Sometimes when we subtract, we don't really subtract at all – we add! Think of this expression:  $50-25$ . You might have thought to yourself that  $25+25=50$ , so the difference is 25. You didn't really subtract at all – you used your knowledge of addition.

This strategy depends on a student's understanding of parts and wholes, and so this strategy unit will use a lot of part-part-whole models to build this understanding.


# What's Included?

**Use Addition Strategy Reference Poster**  
*to post in your classroom*

**Thinking About Math Reflection**  
*for your students to reflect on new learning*

SUBTRACTION STRATEGY

## USE ADDITION



I can use addition when I subtract.


$10-3=?$

10	
3	?

Think: "What can I add to 3 to make 10?"


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## THINKING ABOUT MATH



I can think of a subtraction sentence as two **parts** and a **whole**. Here's an example:

When I solve a subtraction problem, I can use addition to help me.

$15-5$  Explain: 

$25-20$  Explain: 

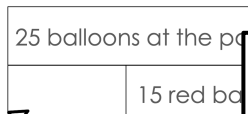
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# Classroom Math Talk

Use these prompts for Number Talks or to get a conversation started about strategies and flexible thinking.

(4 pages)

## MATH TALK

25 balloons at the party. 

What does this represent?

Think of a story problem to go along with this model.

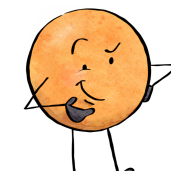
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## MATH TALK

Solve each of the following:

**6-4**  
**16-4**  
**26-4**  
**36-4**

How are they connected?  
What do you notice?



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# Activity Sheets

These are provided at two different levels to make differentiation easy: 0-20 and 0-100. The activities make using addition conceptual using part-part-whole models.

(17 pages)

### SUBTRACT THE PARTS

**EXAMPLE**

5	
3	2

In this example, 5 is the whole, and the parts are 2 and 3. We can write these two subtraction sentences:

5-3=2  
5-2=3

Write two subtraction sentences for each model.

14	10	19
8    6	2    8	
□ - □ = □	□ - □ = □	
□ - □ = □	□ - □ = □	

8	12
6    2	3    9
□ - □ = □	□ - □ = □
□ - □ = □	□ - □ = □

**THINK ABOUT IT**

### NUMBER BONDS AND FACT FAMILIES

**EXAMPLE**

7	
2	5

We can show parts and wholes in a number bond model.

5 and 2 are the parts. 7 is the whole.

5+2=7    7-2=5  
2+5=7    7-5=2

Complete the number bond. Then write an addition and subtraction fact family for each one.

12	□
9    □	□    □
□ + □ = □	□ + □ = □
□ + □ = □	□ + □ = □
□ - □ = □	□ - □ = □
□ - □ = □	□ - □ = □

**THINK ABOUT IT**

What are the missing parts and wholes for what the empty spaces in this model?

### THINKING ABOUT PARTS AND WHOLES

Follow the steps to solve the problem.

There are some pencils on the table. Some of them are yellow and some of them are blue.

**What are the parts?**

**What is the whole?**

Let's add some more information:  
There are 50 pencils on the table. Some of them are yellow and some are blue.

**wondering?**

**Question:**

pencils on the table are blue. How many blue pencils are there?

**or model to solve the problem?**

**action sentence to record the problem?**

**How could you use addition to solve the problem?**

### ADDITION AND SUBTRACTION FACT FAMILIES

**EXAMPLE**

7	
4	3

We can use two parts and a whole to form two addition sentences and 2 subtraction sentences.

4+3=7    7-3=4  
3+4=7    7-4=3

Write two addition sentences and two subtraction sentences for each model.

18	12	6    5
10    8	8    4	□    □
□ + □ = □	□ + □ = □	□ + □ = □
□ + □ = □	□ + □ = □	□ + □ = □
□ - □ = □	□ - □ = □	□ - □ = □
□ - □ = □	□ - □ = □	□ - □ = □

**THINK ABOUT IT**

What could the missing parts and whole be?

□	□
---	---

What could the missing parts and whole be?

□	□
---	---

### IF I KNOW...

You can use a subtraction sentence to form an addition sentence.

**5-2=3** If I know that 5-2=3, then I know that 3+2=5.

First, solve the subtraction sentence. Then make a connection to addition.

14-5=□	10-4=□
If I know that 14-5=□, then I also know that □+□=□.	If I know that 10-4=□, then I also know that □+□=□.
17-6=□	20-12=□
If I know that 17-6=□, then I also know that □+□=□.	If I know that 20-12=□, then I also know that □+□=□.
19-4=□	14-3=□
If I know that 19-4=□, then I also know that □+□=□.	If I know that 14-3=□, then I also know that □+□=□.

**THINK ABOUT IT**

Suppose that you have some chocolate chip cookies and some peanut butter cookies. Can you think of these cookies as **parts** and a **whole**? Explain.

## Small Group or Station Activities

Use these task card activities for guided math groups, small groups, or even individual learning.

(2 stations)

### WRITE A FACT FAMILY TASK CARDS

16	
7	9

1
10

#### INSTRUCTIONS:

- Choose a card.
- Record an addition/subtraction fact family on the recording sheet.

### PROBLEM SOLVING TASK CARDS

Yesterday Britney rode her bike for 18 minutes. Today she rode her bike for 7 minutes. How much longer did she ride for yesterday than today?

3  
What is the whole?  
What are the parts?

It takes the turtle 37 minutes to swim to the other side of the river and back. If it takes her 19 minutes to swim there, how many minutes does it take to swim back?


6  
What is the whole?  
What are the parts?

#### INSTRUCTIONS:

- Read the problem.
- Write the parts and wholes on your recording sheet and solve the problem.

## Mini Flashcards with Suggested Activities

### THINGS TO DO WITH FLASHCARDS



- USE THE FLASHCARDS TO BUILD OR DRAW REPRESENTATIONS.
- USE THE FLASHCARDS TO CREATE A STORY PROBLEM.
- CHOOSE 5 CARDS AND ORDER THEM FROM FAST DIFFERENCE TO GREATEST DIFFERENCE.
- TAKE A CARD AND WRITE A DIFFERENT EXPRESSION THAT HAS THE SAME DIFFERENCE.
- WRITE A RELATED ADDITION EQUATION.
- TAKE A FLASHCARD TO WRITE AN ADDITION/SUBTRACTION FACT FAMILY.
- SORT THE FLASHCARDS INTO TWO CATEGORIES: "FACTS I KNOW" AND "FACTS I DON'T KNOW".
- SORT THE FLASHCARDS INTO TWO CATEGORIES: "EVEN PRODUCTS" AND "ODD PRODUCTS."

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$25-4$

$8-5$

$50-25$

## My Math Fact Philosophy

My resources are created with this philosophy in mind:

- Math should be taught using the Concrete-Representational-Abstract model.
- UNDERSTANDING math facts is more important than memorizing math facts. Conceptual understanding is the **key to math fact fluency**.
- Students must be able to visualize the math in order to really understand it.
- True math fact fluency is more than just speed and accuracy. It also includes flexibility, which is essential to true fluency.
- One of the best ways to build flexibility is by making connections and forming relationships between facts.