

Fourth Edition



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Teacher's Toolkit CD

To the Teacher

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Visuals (from the Teacher's Visual Packet)

Number Word Cards

Sign Cards

Fact Family Flashcards

Group Work Rubric

Extra Help Suggestions

Fact Reviews

Chapter Resources

Instructional Aids

Assessments

Chapter 11 Test with Color Coins

Reteaching Pages

Problem-Solving Challenges

Extended Activities

Worktext Answer Key

Reviews Answer Key

Lesson Features

Encourage a biblical worldview by discussing real-life problems to show the students that math is a powerful tool for exercising dominion over the earth. Objectives point out the skills taught in the lesson. Subtraction is a math skill that helps people obey God's command to work. Lesson command to work.
What are some good things that can happen when a
builder builds a building correctly? What are some bad
things that can happen if he does not build correctly? Objectives

- Subtract back to 10, then subtract the remaining part Subtract back to 10, then subtract the semining part
 Solve a word problem and interpret the solution
 Connect math to the biblical worldview truth that God put people in the world to work Annexes selli tary:

Direct attention to Serve with Math, Worktext page 26, Guide the students to solve problem 2 using the Problem-Solving Plan.

Assist the students in answering problem 3 on Worktext page 26, using the number line pictured. Guide them in finding the number of layers the ighou will have by jumping back 2 until no more jumps of 2 can be made.

How can you know how many layers will be on the igleo? Count the number of jumps made from 17, 8.

Conclude that learning to subtract is important because it can help us to do the work that God gives us to do. The Materials section Teacher Materials and Manipulatives Chart & Hundred Chart lists items that are Chair & Hondred Chair
 20 Countro (optional)
 27 Enn France (optional)
 27 Enn France (optional)
 Number Line (0-20) (Faccher's Toolkist CD)
 Problem Sobing Model (Faccher's Toolkist CD)
 Student Materials and Manipulatives
 Number Line (0-20) (Faccher's Toolkist CD) used in the lesson. Practice and Review Practice addition facts Subtract back to 10, then subtract the remaining part sduce the following related addition facts. Display and distribute the Number Line (0-20) page. Write "13 - 9 = ___" for display. Direct the students to read the equation aloud. Encourage 7+3 7+4 7+5 7+6 7+7 Practice and Review the students to complete the fact if they know it. 4 the students to complete the fact if they know it. 4 Remind the students that in K5 and Grade L, they learned to understand the teen rambers as 10 and some more. (If needed, use 2 Ten Frames and counters to show each teen number as 10 and some more). Explain that this knowledge will be useful as they lears the strategy of subtracting back to 10 then subtracting the remaining part.

Follow the pattern exhabitished at the top of Worktest page 23 to teach the strategy of subtracting back to 10, then subtracting the remaining part. Use a think cloud to decompose the teen ramber; then use ciscles to decompose the part being subtracted from the teen namber. This will bely the students picture the steps of the strategy. provides activities for Distinguish even and odd numbers practicing facts and even! 0, 2, 4, 6, 8 What numbers in the Ones place tell you that a number is odd? 1, 3, 5, 7, 9 previously taught skills. Review of concepts can Display the Hundred Chart. Point to various numbers, aloccur any time during ing volunteers to tell whether each number is even or the day. Identify numbers 1 to 20 Say a number between 1 and 20. Allow time for students to write the number and to make tally marks representing it. Repeat the procedure until all numbers from 1 to 20 have been written and represented. How can you describe the number 13? 13 is 10 and 3 more. Since 13 is 10 and 3, what would you subtract from 13 to Teach for Understanding Write "13 is 10 and 3, so 13 - 3 = 10" for display in a think cloud. Point out that the equation says to subtract 9. Lead the stu-LESSON POCUS
In this lesson you will apply what you have learned about decomposing numbers. You will sobe subtraction facts with a whole geater than 10 by subtracting back to 10, and then subtracting the ensaining part. This strategy will help you solve subtraction problems more confidently. Point out that the equation says to sustract. W. Lead the six dents to conclude that by subtracting. It is get to 10, they have subtracted part of the 9. By decomposing 9 as 3 and some more, they can find what is left to subtract. What is left to subtract. What is left to subtract? 9 is 3 and 6:6 is left to subtract. Write "3" and "6" in circles below the 9. Teach for Understanding and Guide the students to solve 10-6=4. Complete the equation 13-9=4. Guide the students to explain how they know that 9 was subtracted. Check for Understanding Reread the theme story on page 27 of the Chapter Over-view and discuss Matt's problem. provide background infor-What does Matt say he always has a hard time doing! sub-tracting from hig numbers capain now trey know that was accurate.

Model solving these problems on the number line using 2 colors and writing numbers above the jumps to help the students become more proficient with this strategy. Model the steps on the number line as you guide the students through the process.

Begin at 13, make 1 jump back to 10 (13 – 3 = 10), and write "3" above the jump. Write "13 – 3 = 10"; ciscle the 3, mation and questions to tracting from neg namners.

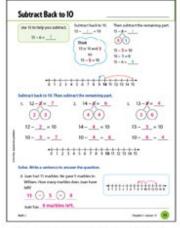
Why is it important for Matt to bring Patak enough blocks for each layer? Amssers will vary, lead the students to conclude that it is important for Patak to have the right number of blocks for each layer so that the igloo can be built correctly and can be safe. effectively engage the students in learning the math concepts for each lesson. Lessons incorporate manipulatives to promote a problem-solving

The Lesson Focus prepares the students for what they will learn in the lesson.

approach that develops critical-thinking skills.

Reduced Worktext pages provide solutions. Use these pages to evaluate student progress and to determine where more guidance is needed.

A variety of activities allows the students to see math at work in real-life contexts.

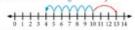


 No. Thomas had Hipemuls. He gave the periods to Obios. Hose many periods does. Not. Thomas have left?

16 9 9 7 TITLLIXXX XXXXXX are, Thomas has ,7 percols lieft 72 A 12-8-4 2 15-7- 1 00 17 - _7_ = 10 15 - _5_ = 10 12 - _2_ = 10 10-2-1 10-4-4 10-2-1 ------Time to Review 106 116 126 136 106 116 126 136 146 156 **'@000000000** 10c 10c 12c 13c 16c 15c 16c 17c 18c 19c

Time to Review exercises provide systematic review of previously learned essential skills and concepts.

From 10, jump back 6 individual jumps to 4 (10-6=4) and write "6" above the jumps. Below 13-3=10, write "10-6=4." Circle the 6. Point to the circled 3 and 6 as you say "9" in 13-9=4. Explain that the final answer is 4; therefore, 13-9=4.



Repeat the procedure for the following facts.

14 - 5 = 9	15 - 9 = 6	16 - 8 = 8
14 - 4 = 10	15 - 5 = 10	16 - 6 = 10
10 - 1 - 9	10 - 4 - 6	10 - 7 - 8

Solve a word problem and interpret the solution

➤ Encourage the students to use the Nameber Line (0-20) to solve the following word problems. Use the Problems. Solving Model to guide the students in picturing the word problems, writing an equation to solve, and then writing a semience to answer the question. Encourage the students in use the strategy of subtracting back to 10 then subtracting

the termining part.

Mr. Smith had 16 pencils, He gave 9 pencils to the students who needed new pencils. How many pencils does Mr. Smith have new 16 - 9 = 7, Mr. Smith has 7 pencils now.

After they have solved the weed problem, allow the stu-dents to explain why they used subtraction to solve it. En-courage them to use the equation and the picture they created to retell the story in their own weeds. Adam had 12 trucks. He gave 4 of his trucks to his friend Eddie. How many trucks does Adam have now! 12 – 4 = 8; Adam has 8 trucks now.

noun nas 8 trucks 100%. Did subtracting the remaining part help you solve this problem! Yee, knowing that subtracting 2 from 12 results in 10 let me decompose that subtracting 2 from 12 results in 10 let me decompose 12 to 10 (12 \times 2 10). Then from 10, 1 can jump back the remaining 2 to 8 (10 \times 2 \times 8).

Worktext pages 33-34

- Guide the students to the conclusion that using strategies will help them solve difficult subtraction problems with confidence and accuracy.

 Read and guide completion of page 33.
- had and explain the directions for page 34. Assist the stolents as they complete the page independently.
- students to the discussion question in the Time to section. Guide students to the conclusion that the n is needed to indicate the value of coins.

on 15 35

Group work promotes collaborative learning. Students learn by working together as a whole class and sometimes by working in smaller groups.

Chapter 2 | Subtraction Facts

Involve the students in interactive learning through discussion that encourages them to construct reasonable proof for their solutions.

New to This Edition

- 1. The goal of this book is to help you advance the math understanding of every student in your classroom. Since students have diverse needs and learning styles, this book places increased emphasis on implementing differentiated instruction. Changes include more group work, which allows collaboration and interaction among peers. For optimal learning for all students, each group should include students with varying strengths and abilities. Groups may vary for each instructional strand. Students who are reluctant to respond in large groups will often participate in small groups. The use of manipulatives and strategies is emphasized throughout to help your students grow their math knowledge and demonstrate their thinking and reasoning skills.
- 2. The Teacher Notes section at the beginning of each chapter details the learning objectives for the chapter. This section includes background information, indicates what foundational knowledge the chapter is building on, and gives other helpful information pertaining to the chapter. On this page you will find Math Board suggestions, which are designed to guide practice of previously learned material and can be used any time of day. This review time focuses on core concepts and provides an excellent opportunity for you to find areas where your students would benefit from additional teaching or practice.
- 3. Studies show that retention increases by 23 percent when students know what learning is expected of them. This book offers a Lesson Focus for every lesson, which is to be conveyed to your students before the lesson begins. In some cases the Lesson Focus will point out how previous knowledge will be applied to the new concept. Students should discuss and conclude what they have learned before they begin their practice on the Worktext pages.
- 4. To help your students become life-long problem solvers, more focus has been placed on processing word problems. Encourage the students to become active listeners by asking them to listen for who the problem is about and what action is taking place as you read through the word problem the first time. As you reread the problem one sentence at a time, encourage your students to picture the problem with manipulatives or drawings. After all sentences have been reread and the picture is complete, ask the students to translate the picture into a number sentence and retell the story in their own words. Making a picture will help the students make sense of their number sentence. Finally, a summary sentence should be crafted to explain the solution.

- 5. Students are expected to reason and explain their thinking. Engaging the students in the learning process involves asking them questions and allowing them time to answer. Their answers should include their reasoning based on their interaction with manipulatives or drawings. Their answers should also incorporate math terminology. It may take additional questioning to draw more complete answers and explanations from your students at the beginning of the year. The lessons establish a pattern of asking students to explain their answers or reasoning. You will notice that the reasoning is often included in answers even when the question does not specifically ask for it. It is expected that students will give their reasoning for all answers where appropriate. Taking time to listen to students explain their answers provides insight into their reasoning and can help you strengthen their thinking or clear up any misconceptions they may have. A gear icon (%) is used to help you identify higher-level thinking questions within the lessons. Supply any prompts or background needed to guide the student to the answer. Student Worktext pages often have discussion questions in blue think bubbles. These questions are intended to engage your students in math discussions that lead them to a deeper level of math understanding and further develop their reasoning abilities.
- Provide a safe and loving learning environment that encourages the students to participate in the learning process. Remember that each student is made in God's image (Genesis 1:26-27). Circulate among the students as

they work, guiding them to correct thinking and giving individual attention as needed. The theme stories make many real-life connections for math as Matt uses math skills to build homes for people in different parts of the world. Teach your students that God provides many opportunities for them to help others and that math can be a tool they use to portray Christ's love and grace to those around them.

