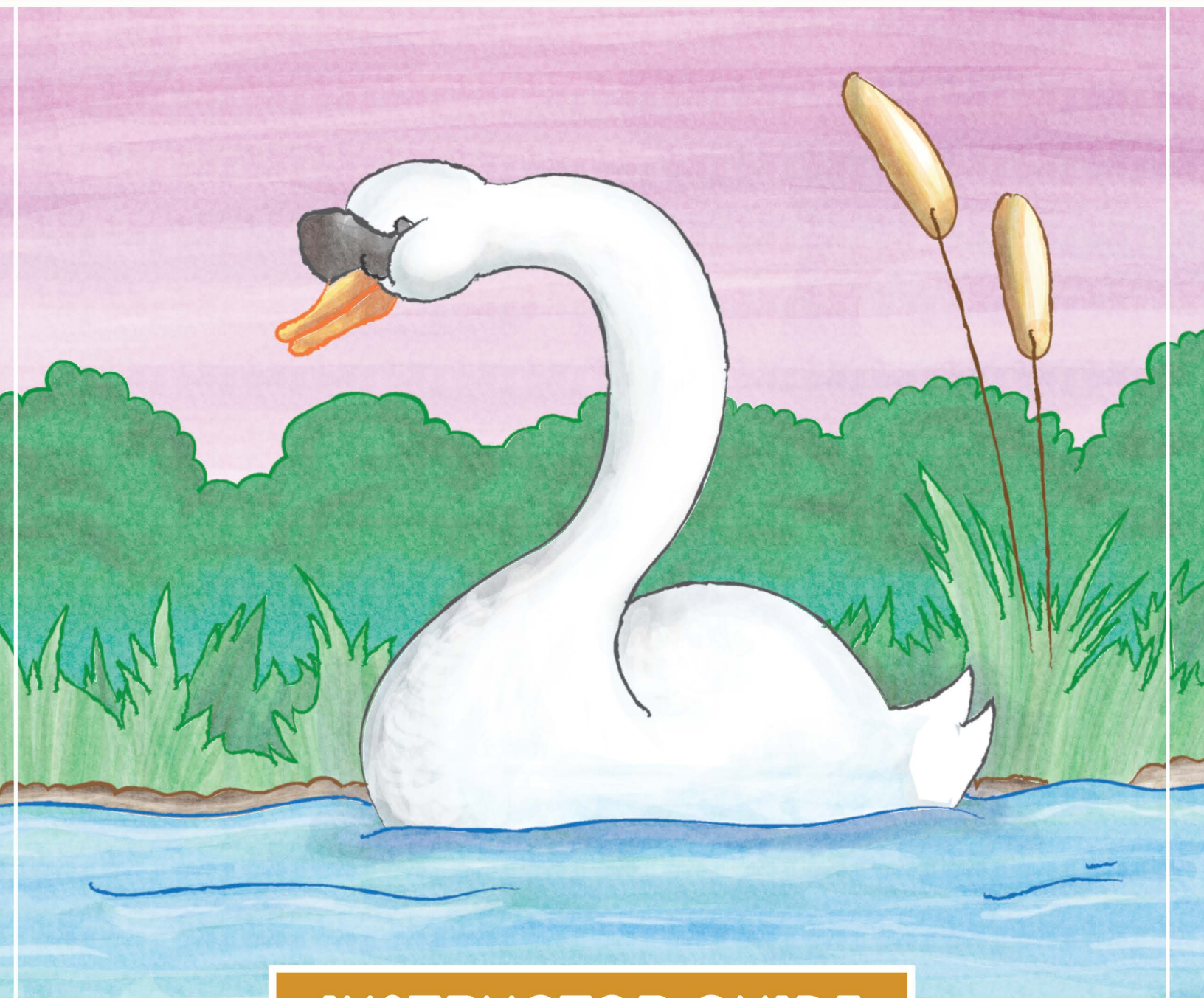


— SECOND GRADE —
MATH WITH
CONFIDENCE



INSTRUCTOR GUIDE

— KATE SNOW —

Second Grade
Math
with Confidence

Instructor Guide

KATE SNOW

WELL-TRAINED MIND PRESS

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Welcome to Second Grade Math with Confidence!

Second Grade Math with Confidence is a complete math curriculum that will give your child a solid foundation in math. It's playful, hands-on, and fun with thorough coverage of second-grade math skills:

- reading, writing, and comparing numbers to 1000
- adding and subtracting 2- and 3-digit numbers
- solving addition and subtraction word problems
- telling time, counting money, and measuring length
- reading graphs, identifying 2-D and 3-D shapes, and understanding simple fractions

The carefully-sequenced and confidence-building lessons will help your child develop a strong understanding of math, step by step. Daily review ensures that she will fully master what she has learned in previous lessons. With this blend of **deep conceptual understanding** and **traditional skill practice**, you'll give your child a thorough second-grade math education.

Fun activities like Pretend Restaurant, Measurement Tag, and Fraction Bump will help your child develop a **positive attitude** toward math. You'll also find optional weekly enrichment lessons, with suggestions for delightful math picture books and real-world math activities that help your child appreciate the importance of math in real life.

Besides this Instructor Guide, *Second Grade Math with Confidence* also includes a **colorful, engaging Student Workbook** to reinforce what your child has learned. These short, straightforward workbook pages both reinforce new skills and review previous lessons so that your child remembers what he's learned.

If you're like most parents, you've probably never taught math before. You may even feel a little anxious. But don't worry: I promise to guide you every step of the way! *Second Grade Math with Confidence* is full of features that will help you teach math with confidence all year long:

- **Scripted, open-and-go lessons**
- **Clear goals** at the beginning of each lesson so you know exactly what you're trying to accomplish
- **Explanatory notes** help you understand more deeply how children learn math so you feel well-equipped to teach your child
- **Checkpoints** at the end of each unit give you specific guidance on whether to spend more time on the current unit or move on to the next one

In the next section, you'll learn how the curriculum is organized and how to get your materials ready. Invest a little time reading this section now (and getting your Math Kit ready), and you'll be ready to teach math like a pro all year long.

Wishing you a joyful year of second grade math!
Kate Snow

Introduction

The Goals of *Second Grade Math with Confidence*

Second Grade Math with Confidence aims to help children become confident and capable math students, with a deep understanding of math concepts, proficiency and fluency with fundamental skills, and a positive attitude toward math.

Deep conceptual understanding

You'll focus on one concept at a time for several weeks so your child can build deep, connected knowledge of each new topic. (Educators call this a *mastery approach* to new content.) Each new lesson builds on the previous one so your child gradually develops thorough understanding and makes connections between concepts.

Proficiency with fundamental skills

Children need lots of practice in order to master the basic skills necessary for proficiency in math. *Second Grade Math with Confidence* provides continual, ongoing review of these core skills so your child fully grasps them by the end of the year. (Educators call this a *spiral approach* to review, because children periodically revisit topics, just as the curve of a spiral returns to the same point on a circle.)

Positive attitude

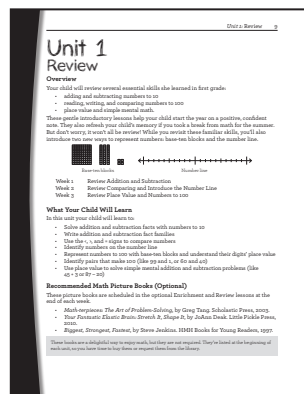
The lessons in *Second Grade Math with Confidence* include games, movement, pretend activities, and lots of hands-on learning so your child enjoys and even looks forward to math time. Optional enrichment lessons each week (with a picture book suggestion and math extension activity) provide a break from the usual routine and help your child appreciate how math is used in real life.

Overview

Second Grade Math with Confidence is organized into units, weeks, and lessons. Each section has clear goals so you know exactly what you're trying to accomplish.

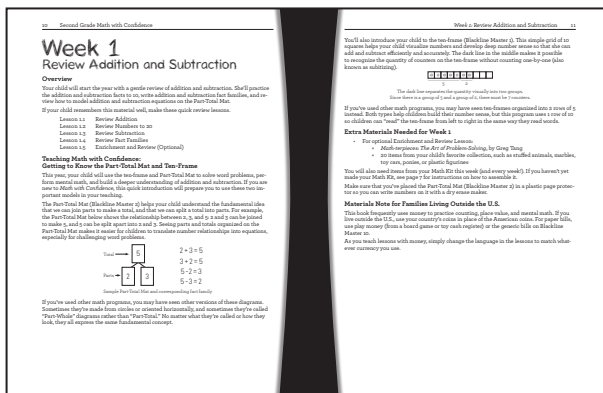
Units

Second Grade Math with Confidence is divided into 14 units. Each unit focuses on developing thorough understanding of one core topic, such as graphs, mental addition, or numbers to 1000.



Weeks

Each unit is divided into 2–3 weeks (with a total of 32 weeks of lessons). Each week focuses on a specific topic, such as telling time to the minute or developing fluency with written addition. These groups of lessons are called weeks, but you don't have to finish each one in a calendar week—it's fine to have your “week” begin on Wednesday and end on the following Friday.



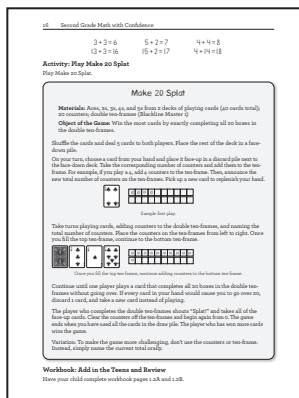
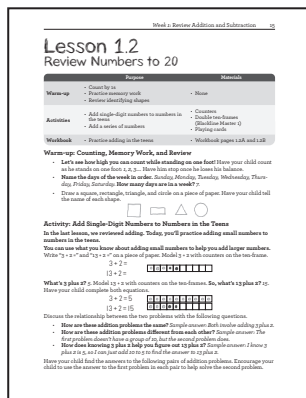
The preview for each week includes the following:

- **Overview.** A brief summary of what you'll teach that week, along with a list of the lessons.
- **Teaching Math with Confidence.** These notes will help you understand more deeply how children learn math so that you'll be well prepared to teach the new concepts.
- **Extra Materials.** You'll sometimes need to supplement your regular math materials with a few everyday household items, such as small toys, tape, or scissors. This section will give you a heads-up if you need any extra materials for the week. (See below for more information on materials.)

Two Types of Lessons

Each week includes five lessons: four required core lessons and one optional enrichment lesson. The core lessons teach and review essential second-grade concepts and skills, while the enrichment lessons provide extra fun and real-life math applications.

Both types of lessons follow a consistent three-part format, with the purpose and materials listed at the top for easy reference. Plan for your child to spend a total of 20-30 minutes on each lesson, with 15-20 minutes of parent-led instruction.



Within the lessons:

- **Bold** text indicates what you are to say.
- *Italic* text provides sample answers.
- Gray-highlighted text indicates explanatory notes.

If possible, try to plan a consistent time for teaching math each day. Many families find it best to do math first thing in the morning when everyone's fresh. If you have younger children, you might find it works better to teach math in the afternoon while your younger children are napping.

Core Lessons (Required)

Each core lesson includes several short and varied activities to help keep your child engaged and attentive:

Warm-up: counting, memory work, and review (5 minutes)

The warm-up provides regular, brief practice with counting and memory work. It also includes a quick review activity so your child remembers and retains what he has learned. Try to keep this part of the lesson short and sweet so your child isn't worn out before the new learning later in the lesson.

Children vary in how much review they need. If your child already knows a particular fact or skill, you do not need to review it every time it is listed in the Instructor Guide. Or, if your child needs more practice than suggested, feel free to add more review.

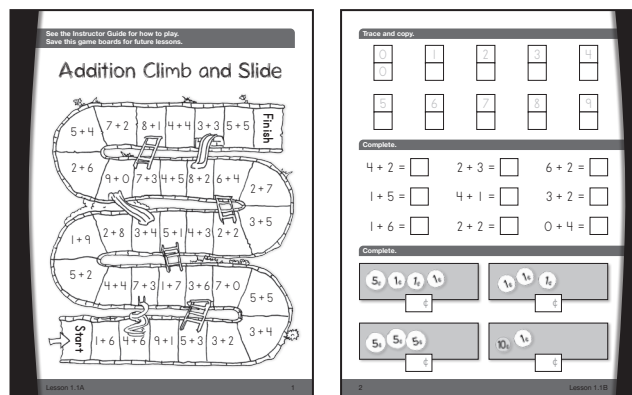
Hands-on activities (10-15 minutes)

These parent-directed activities are the most important part of each lesson. You'll teach your child the new concepts and skills through conversation, hands-on materials, and games. The lessons are scripted so you can just open the book and start reading, but you're welcome to rephrase the words to fit your own teaching style better.

Feel free to inject your own personality into your teaching, and personalize the lessons for your child. You might use your child's favorite objects for counting, change the names in word problems to match your family members, or take your math lesson outside to enjoy a beautiful day.

Workbook (5-10 minutes)

Your child will complete a two-sided workbook page at the end of each core lesson. (These workbook pages are included in the separate Student Workbook.) Side A gives your child written practice with the lesson's new material. Side B reviews skills your child has already learned.



You'll occasionally use Side A during the lesson, but your child will usually complete the workbook pages at the end of the lesson on his own. Most second-graders will be able to complete the worksheets independently, but many will need their parent to help read and interpret the directions. If writing is difficult for your child, feel free to have your child complete

part or all of the worksheets orally rather than writing out the answers.

Have your child use a pencil for the workbook pages so it's easy to erase mistakes. You'll also occasionally need crayons or markers for coloring activities, so make sure you have them available. And, try to check the workbook pages as soon as your child finishes them. This immediate feedback shows your child that you value his work, and it helps prevent mistakes from becoming ingrained habits.

Enrichment Lessons (Optional)

Enrichment lessons are scheduled on the fifth day of each week. Many parents and children find that these enrichment lessons are their favorite part of the week. (Siblings often enjoy participating in them, too!) However, these enrichment lessons are completely optional. You are free to choose the ones that sound the most fun for your family, or skip them entirely if your schedule is too full.

Warm-up: counting, memory work, and review (5 minutes)

The enrichment lessons give your child a chance to show off her counting skills and recite all of the memory work she has learned so far. If you have time, you can also revisit one of her favorite or most challenging activities from the week.

Picture book (10 minutes)

Reading math picture books together is a fun, cozy, and delightful way to enjoy math. Most of the suggested books relate to the main concept studied that week, but some expose your child to other interesting math topics. **The picture books are not required.** You do not need to buy every book or track down every book in your library system. It's also perfectly fine to use a book on a similar topic as a substitute.

Enrichment activity (varies)

The enrichment activities help your child understand and appreciate how math is used in everyday life. You'll find suggestions for art projects, field trips, physical activities, and more to make math come alive for your child.

Pacing and Checkpoints

Just as children learn to crawl, walk, and talk at different times, they are developmentally ready to learn math at different times, too. *Second Grade Math with Confidence* provides lots of flexibility so your child can learn at his own pace. You know your child best, and you are always welcome to slow down or speed up the pace of the lessons based on your child's needs. Use the information below to help make decisions about pacing.

Is My Child Ready to Start *Second Grade Math with Confidence*?

Most children are ready to start *Second Grade Math with Confidence* when they are 7 years old. Your child is ready to begin this program if she can:

- Count to 100 by 1s, 2s, 5s, and 10s.
- Read, write, and compare 2-digit numbers.
- Understand the meaning of the tens-place and ones-place in 2-digit numbers.
- Write simple addition and subtraction equations, and solve simple word problems with single-digit numbers.
- Know most of the addition facts up to $9 + 9$.
- Know most of the subtraction facts that involve subtracting from numbers up to 10 (for example, $7 - 4$ or $10 - 6$).
- Know the names and values of coins and identify combinations of a few coins.

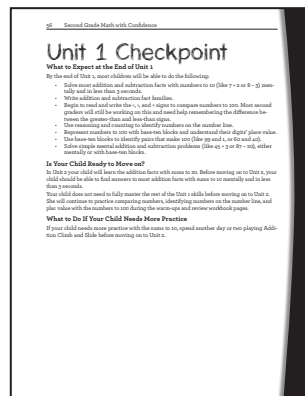
All of these skills are reviewed in the first few units, so don't worry if your child needs a refresher on a few of them.

If your child is not fluent with the addition facts up to $9 + 9$ or the subtraction facts up to 10, you may need to spend a little extra time on them in Units 2 and 4. Notes throughout the lessons and Checkpoints at the end of each unit will help you decide whether to continue on to the next unit or spend more time solidifying these essential skills. (See the next question for more on Checkpoints.)

How Do I Know Whether to Stick with a Lesson or Move On?

Each lesson in *Second Grade Math with Confidence* gently builds on the previous one, but your child doesn't need to completely master every lesson before moving on to the next. The program includes many opportunities for review and practice before your child is expected to achieve full proficiency with any topic.

As a general principle, continue teaching new lessons until you reach the end of a unit. At the end of each unit, you'll find a Checkpoint that will help you assess how your child is doing. The Checkpoints will also give you guidance on whether to move on to the next unit or give your child more practice with the current unit.



Each Checkpoint is divided into three parts:

- **What to Expect at the End of the Unit** This list of skills tells you what second-graders typically are able to do at the end of each unit.
- **Is Your Child Ready to Move On?** This section tells you what your child needs to have mastered before moving on to the next unit.
- **What to Do if Your Child Needs More Practice** If your child isn't quite ready to move on, this section gives you options for reviewing and practicing the skills she needs to master before the next unit. (This section is omitted if no specific skills are necessary for the next unit.)

For many units, your child does not need to master all of the material from the current unit before moving on. For example, in Unit 6, your child will learn to add two-digit numbers. He'll continue to practice this skill as he learns to tell time in Unit 7, but he does not need to be completely fluent at adding two-digit numbers before starting the new unit.

What Should I Do If My Child is Crying or Frustrated?

Extra tiredness, oncoming illness, or just plain grumpiness can make for a less-than-cheerful day of math. Don't worry if your child occasionally gets frustrated or cries during lesson time. If emotions rise during math, it's usually best to cut the lesson short and resume later in the day or the next day.

However, if your child is continually frustrated, resisting math lessons, or crying during math time, it's a clear sign you should take a break from the current topic, do some gentle review, and then try the topic again in a few weeks. If your child shows these signs frequently, this book may be too challenging for his current maturity level, no matter how old he is. It may be wiser to use *First Grade Math with Confidence* instead. Every child's brain matures at a different rate, and you and your child will both find math time much more enjoyable when your child is developmentally ready for the concepts.

What Should I Do If the Lessons are Taking Too Long?

The lessons in this program are meant to take no more than 20-30 minutes and include a variety of activities so your child can stay engaged and attentive. If you find a particular lesson takes longer than 30 minutes or if your child gets restless, stop and resume the lesson the next day. Or, break the lesson into two parts: do the hands-on activities during one part of the day, and then have your child do the workbook page at a different time. The rest of the lesson will probably go much more smoothly once your child is fresh.

What Should I Do If My Child Flies Through the Lessons?

If you have a child who picks up math quickly, you can condense lessons or skip some of the warm-up activities and review workbook pages. If you go this route, occasionally double-check whether your child still remembers these skills. Just because she knew a skill at one point doesn't mean she still knows it, and periodic checks will help cement that information in her memory.

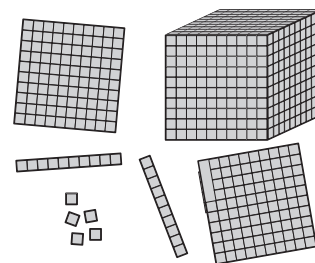
What You'll Need

You'll use simple household items to make math hands-on, concrete, and fun in *Second Grade Math with Confidence*. Most lessons only require materials from your Math Kit, but you'll also sometimes use everyday objects to enhance the lessons. No need for an expensive shopping trip, though! You likely already own nearly everything you need.

How to Create Your Math Kit

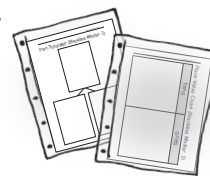
You'll use materials from your Math Kit in every core lesson. Stick the following materials in a box or basket so they're always ready to go, and keep them handy when you're teaching.

- Base-ten blocks.** Base-ten blocks provide a concrete way for children to understand place value. Each block represents a different value in our number system (ones, tens, hundreds, or thousands). Look for a set with at least 100 units, 20 rods, 10 flats, and 1 large cube. They're generally available for about \$25 online or at school supply stores. You can also photocopy and color Blackline Master 11 (page 557) instead, although children usually find real blocks easier to maneuver.
- 50 small counters.** Any type of small object (such as plastic tiles, Legos, blocks, plastic bears, coins, or dried beans) is fine. These work best (and fit the Blackline Masters) if they are less than .75" (or 2 cm) across. You can also use the units from your set of base-ten blocks. You'll occasionally need 2 colors, so make sure at least 10 of the counters are a different color than the rest.
- Coins (20 pennies, 20 nickels, 10 dimes, 8 quarters).** You can use toy coins, but children often enjoy using real coins more. (If you live outside the U.S., you can use your local currency's coins instead. See the materials note on page 11 for more details.)



Base-ten blocks

- **Play money (10 each of one-dollar bills, five-dollar bills, ten-dollar bills, twenty-dollar bills, and hundred-dollar bills).** Play money from a toy cash register or board game works well, or you can copy and cut out the play money on Blackline Master 10.
- **Clock with hands.** Your clock should have clear, easy-to-read numbers, tick marks along the edge for each minute, and hands your child can easily move. If your family’s clocks don’t meet these criteria, you may want to buy an inexpensive plastic teaching clock (sometimes called a “Judy clock”) to make these lessons easier to teach.
- **1-foot (or 30-centimeter) ruler.** You will teach your child to measure in both inches and centimeters this year, so make sure your ruler is labeled with both units.
- **Two packs of playing cards and two dice.** You’ll use playing cards and dice for some of the games in this book. Any standard 52-card decks and regular, six-sided dice will work fine.
- **Blank paper.** Any kind of paper is fine, including plain copy paper.
- **Pencils.** Keep sharp pencils on hand for lessons and workbook pages.
- **3 page protectors.** You will need a page protector for the Part-Total Mat (Blackline Master 2) and both pages of the Place-Value Chart (Blackline Master 5) so you can write on them with a dry-erase marker.
- **Dry-erase marker.** You will use this to write numbers on the Part-Total Mat and Place-Value Chart.
- **Binder with about 25 plastic page protectors. (Recommended, but not required.)** Blackline Masters and game boards are an important part of the program and are often reused. Many pilot-test families found it easiest to keep track of these papers in plastic page protectors in a binder.



You will occasionally need to save items for future lessons. This symbol will alert you if you need to save anything.

Other Supplies Needed

You’ll need only your Math Kit for most lessons, but occasionally you’ll need a few other common household items. You’ll find these items listed in three different places in the curriculum to make sure you always know what you need:

- The preview for each week lists all extra household items needed.
- The top of each lesson lists all supplies you’ll need to teach that lesson. These lists include items from your Math Kit as well as extra household items. (Note that many lessons require paper, slips of paper, pencils, or a dry-erase marker. To save space, they are not listed unless you need more than 3 slips of paper.)
- You’ll find the complete list of household items needed throughout the year on pages 528-529.

Don’t feel you have to gather the extra household items now. Most are common things like tape, scissors, or small toys you can grab right before you begin the lesson.

Helpful Resources

You’ll find an appendix of helpful resources at the back of this book:

- Scope and Sequence
- Complete Memory Work List
- Complete Picture Book List
- Materials List
- Game List
- Blackline Masters

Unit 1

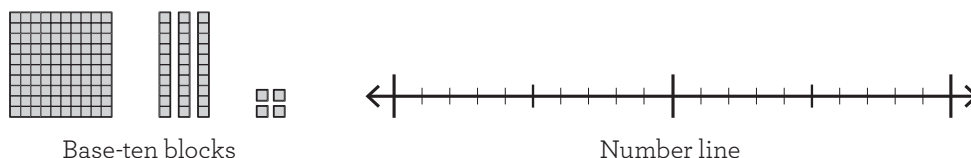
Review

Overview

Your child will review several essential skills she learned in first grade:

- adding and subtracting numbers to 10
- reading, writing, and comparing numbers to 100
- place value and simple mental math.

These gentle introductory lessons help your child start the year on a positive, confident note. They also refresh your child's memory if you took a break from math for the summer. But don't worry, it won't all be review! While you revisit these familiar skills, you'll also introduce two new ways to represent numbers: base-ten blocks and the number line.



Week 1	Review Addition and Subtraction
Week 2	Review Comparing and Introduce the Number Line
Week 3	Review Place Value and Numbers to 100

What Your Child Will Learn

In this unit your child will learn to:

- Solve addition and subtraction facts with numbers to 10
- Write addition and subtraction fact families
- Use the $<$, $>$, and $=$ signs to compare numbers
- Identify numbers on the number line
- Represent numbers to 100 with base-ten blocks and understand their digits' place value
- Identify pairs that make 100 (like 99 and 1, or 60 and 40)
- Use place value to solve simple mental addition and subtraction problems (like $45 + 3$ or $87 - 20$)

Recommended Math Picture Books (Optional)

These picture books are scheduled in the optional Enrichment and Review lessons at the end of each week.

- *Math-terpieces: The Art of Problem-Solving*, by Greg Tang. Scholastic Press, 2003.
- *Your Fantastic Elastic Brain: Stretch It, Shape It*, by JoAnn Deak. Little Pickle Press, 2010.
- *Biggest, Strongest, Fastest*, by Steve Jenkins. HMH Books for Young Readers, 1997.

These books are a delightful way to enjoy math, but they are not required. They're listed at the beginning of each unit, so you have time to buy them or request them from the library.

Week 3

Review Place Value and Numbers to 100

Overview

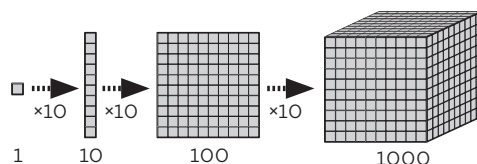
This week, you'll review the numbers to 100 with base-ten blocks. You'll introduce the blocks with a fun design activity and then use the blocks to review place value, perform mental math, and find pairs that equal 100.

- Lesson 3.1 Introduce Base-Ten Blocks
- Lesson 3.2 Review Place Value
- Lesson 3.3 Review Mental Math
- Lesson 3.4 Review Pairs That Make 100
- Lesson 3.5 Enrichment and Review (Optional)

Teaching Math with Confidence: Introducing Base-Ten Blocks

You'll introduce your child to base-ten blocks this week. You'll use these blocks all year long to model place value, demonstrate mental math strategies, and teach your child to add and subtract two- and three-digit numbers.

Base-ten blocks come in 4 different sizes: units, rods, flats, and large cubes. Each block is 10 times the size of the next-smaller block, just as each place in our base-ten number system has 10 times the value of the next-smaller place.



For example, here's how you'll use base-ten blocks to model the number 145:

thousands	hundreds	tens	ones
	1	4	5

You'll use base-ten blocks to model place value in second grade.

Base-ten blocks provide a concrete way for your child to understand the abstract concept of place value. This week, your child will get to know base-ten blocks in the context of the numbers to 100 so that she's ready to use them to model larger numbers (and more complex problems) later in the year.

Extra Materials Needed for Week 3

- Napkin
- For optional Enrichment and Review Lesson:
 - × *Biggest, Strongest, Fastest*, by Steve Jenkins
 - × Chutes and Ladders, Rack-O, or 100 Chart (Blackline Master 4), die, and counters

Make sure that you've placed the Place-Value Chart (Blackline Master 5) in a plastic page protector so you can write numbers on it with a dry erase maker.

You will also need base-ten blocks for this week's lessons. If you do not have real base-ten blocks, you can use the paper versions on Blackline Master 11 instead.

Lesson 3.1

Introduce Base-Ten Blocks

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count coins Practice memory work Review subtraction facts to 10 	<ul style="list-style-type: none"> Coins Counters Subtraction Climb and Slide game board (from workbook page 1.3A) Die
Activities	<ul style="list-style-type: none"> Introduce base-ten blocks Find the value of combinations of tens and ones 	<ul style="list-style-type: none"> Base-ten blocks
Workbook	<ul style="list-style-type: none"> Find the value of combinations of tens and ones 	<ul style="list-style-type: none"> Workbook pages 3.1A and 3.1B

Warm-up: Counting, Memory Work, and Review

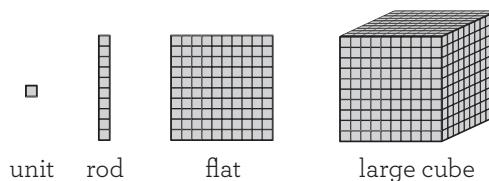
- Place 6 dimes and 2 pennies on the table. **How much are the coins worth?** $62¢$.
- What do we call the result when we add numbers together?** *The sum.* **What do we call the result when we subtract a number from another number?** *The difference.*
- Play Subtraction Climb and Slide. See Lesson 1.3 (page 19) for directions.

Activity: Introduce Base-Ten Blocks

This week, we'll review place value and mental math with the numbers to 100. We'll use a new math tool: base-ten blocks! Today, you will make designs with the blocks and count to find the value of the blocks in each design.

See the Week 3 **Teaching Math with Confidence** for an introduction to base-ten blocks.

Show your child the set of base-ten blocks. Tell your child the name of each type of block.

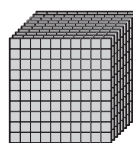
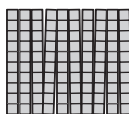


These names are nicknames, not important mathematical terms, and your child does not need to memorize them.

The smallest block is the unit. The other blocks are made of these units connected together. How many units are in 1 rod? 10. Have your child line up 10 units to confirm that they are the same size as 1 rod. **Ten ones equal 1 ten.**



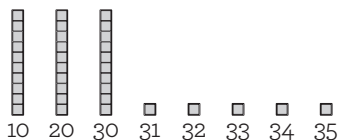
Show your child that 10 rods equal 1 flat, and that 10 flats equal 1 large cube.



Can you guess why these blocks are called base-ten blocks? *Sample answer: Each bigger block is made of 10 of the next-smaller blocks. The number 10 is the base of our number system. It's the foundation for place value and for how we read and write numbers.*

Activity: Identify Quantities of Base-Ten Blocks

Place 3 rods and 5 units on the table. Each unit has a value of 1. So, each rod has a value of 10. I can count these blocks by 10s and 1s to find their value. Demonstrate how to count the blocks by 10s and 1s: 10, 20, 30, 31, 32, 33, 34, 35.



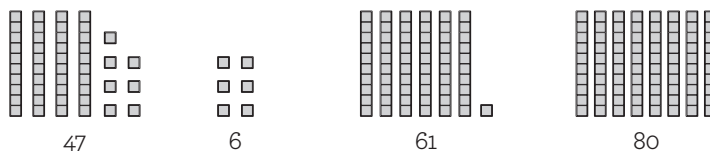
Counting by 10s and 1s to find the blocks' value

Or, I can use place-value thinking: There are 3 tens and 5 ones. 3 tens equal 30 and 5 ones equal 5. So, the blocks have a value of 35.



Using place-value thinking to find the blocks' value

Show your child the following block arrangements. Have her identify the value of each set of blocks, either by counting by 10s and 1s or by using place-value thinking.

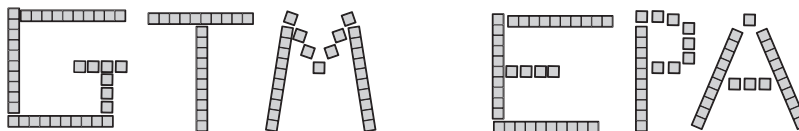


Activity: Make Designs with Base-Ten Blocks

Leave 8 rods and 19 units on the table, and put away the rest of the base-ten blocks.

Leaving just these blocks on the table ensures your child's designs will have a value less than 100.

Let's use the blocks to build your initials. Have your child build her initials with units and rods.

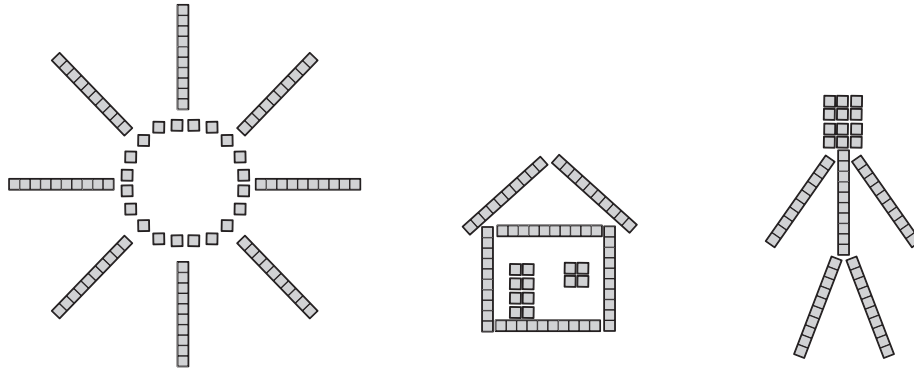


Sample initials made from base-ten blocks

What's the value of the blocks in your design? *Answers will vary.*

If your child's design has 10 or more unit blocks, she can either trade 10 units for 1 rod or count the units by 1s. You'll explore trading in Lesson 3.2.

Have your child make 2 more designs of her own choosing and find the value of the blocks in each design. If she's stuck, suggest she make a house, sun, or stick-figure person.



Workbook: Identify Combinations of Tens and Ones and Review

Have your child complete workbook pages 3.1A and 3.1B.

Workbook page 3.1B directs your child to color the leaves according to the key. If your child doesn't enjoy coloring or finds it tiring, she can draw an X of the appropriate color instead of coloring the entire shape.

Lesson 3.2

Review Place Value

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count money Practice memory work Review missing addends 	<ul style="list-style-type: none"> Play money
Activities	<ul style="list-style-type: none"> Review place value with tens and ones Review writing two-digit numbers Understand that you can trade 10 ones for 1 ten 	<ul style="list-style-type: none"> Place-Value Chart (Blackline Master 5) Base-ten blocks Playing cards
Workbook	<ul style="list-style-type: none"> Write two-digit numbers to match combinations of tens and ones 	<ul style="list-style-type: none"> Workbook pages 3.2A and 3.2B

Warm-up: Counting, Memory Work, and Review

- Place 7 ten-dollar bills and 3 one-dollar bills on the table. **How much are the bills worth?** \$73.
- Name the months in order.** *January, February, March, April, May, June, July, August, September, October, November, December.* **How many months are in a year?** 12.
- Secretly write each of the following equations on a piece of paper and hide the addend indicated with a slip of paper. Have your child pretend to use “x-ray vision” to identify the hidden number in each equation.

$$10 + \boxed{5} = 15 \quad 10 + 1 = \boxed{11} \quad \boxed{10} + 3 = 13$$

$$10 + 6 = \boxed{16} \quad 10 + 20 = \boxed{30}$$

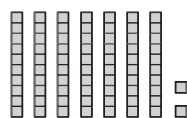
Activity: Review Place Value

In the last lesson, you made base-ten block designs and found the value of the blocks in your designs. Today, we’ll use base-ten blocks to review place value.

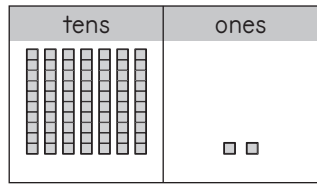
Show your child both pages of the Place-Value Chart (Blackline Master 5.) **When we write a number, the Place-Value Chart helps write each digit in the place that matches its value. This year, we’ll use a place-value chart with places for thousands, hundreds, tens, and ones.**

thousands	hundreds	tens	ones

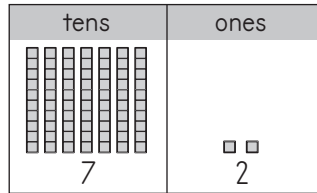
We’ll use just the page with the tens-place and ones-place today. Put away the page with the hundreds-place and thousands-place. Place 7 rods and 2 units on the table. **What is the value of the blocks?** 72.



Let's use the Place-Value Chart to help write the number 72. Place the 7 rods in the tens-place and the 2 units in the ones-place on the Place-Value Chart.

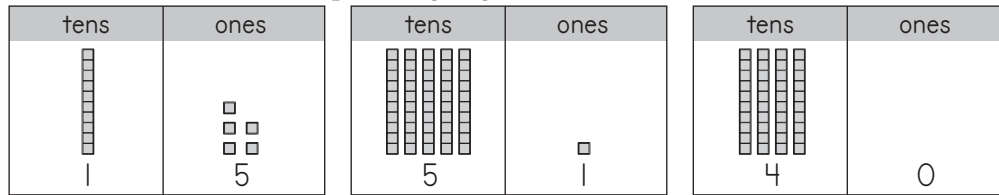


There are 7 tens, so I write 7 in the tens-place. Write 7 in the tens-place on the Place-Value Chart. There are 2 ones, so I write 2 in the ones-place. Write 2 in the ones-place on the Place-Value Chart. So, that's the number 72.



We call 7 and 2 the *digits* in the number 72. The number 72 has 2 digits, so we call it a two-digit number.

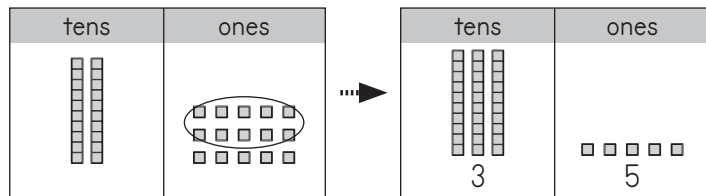
Show your child the following sets of blocks. For each arrangement, have him identify the blocks' value and write the corresponding digits on the Place-Value Chart.



Activity: Trade 10 Ones for 1 Ten

This activity and the following game preview the trading your child will do later in the year when he adds 2- or 3-digit numbers.

Place 2 rods and 15 units on the Place-Value Chart. **When we write numbers, we can only use the digits from 0 to 9. If there are any groups of 10 on the Place-Value Chart, we have to trade before we record the digits.** Help your child trade 10 units for 1 rod and write the digits in the Place-Value Chart.



So, what's the value of the blocks? 35.

Activity: Play Race to 100

Play Race to 100.

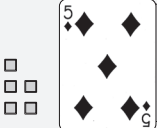
Race to 100**Materials:** Aces, 5s, and 10s from 2 decks of cards (24 cards total); base-ten blocks**Object of the Game:** Be the first player to reach 100.

Shuffle the cards and place them in a face-down pile. Make a simple scorecard to record the score.

Louise	
Mom	

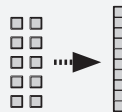
On your turn flip over a card. If you flip over a 1, take 1 unit. If you flip over a 5, take 5 units. If you flip over a 10, take 1 rod.

Find the total value of your blocks and record this score in the chart.

	Louise	5
	Mom	

Sample first play

Take turns flipping over a card, taking the corresponding blocks, and recording the total value of your blocks. If you have ten units at the end of a turn, trade them for a rod.



Trade 10 units for 1 rod if possible.

If you run out of cards, shuffle and reuse the discard pile.

Continue until one player reaches 100 or goes over 100.

Louise	5	15	16	26	36	41	42	52	57	67	68	78	88	98	103
Mom	5	6	16	17	22	23	24	29	39	44	45	50	60	65	

Sample final scorecard

Workbook: Write Two-Digit Numbers and Review

Have your child complete workbook pages 3.2A and 3.2B.

Lesson 3.3

Review Mental Math

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 10s starting at a number other than 0 Practice memory work Review addition facts to 10 	<ul style="list-style-type: none"> Base-ten blocks Counters Addition Climb and Slide game board (from workbook page 1.1A) Die
Activities	<ul style="list-style-type: none"> Understand the purpose of mental math Solve simple mental addition or subtraction problems 	<ul style="list-style-type: none"> Base-ten blocks Napkin
Workbook	<ul style="list-style-type: none"> Solve simple mental addition or subtraction problems 	<ul style="list-style-type: none"> Workbook pages 3.3A and 3.3B


Warm-up: Counting, Memory Work, and Review

- Count with me by 10s, starting at 5. We'll model the numbers with base-ten blocks as we count. Begin with 5 units on the table, and add a rod as you say each new number: 5, 15, 25.... Continue until you reach 95.
- What do we call the result when we add numbers together? *The sum.* What do we call the result when we subtract a number from another number? *The difference.*
- Play Addition Climb and Slide. See Lesson 1.1 (page 14) for directions.

Activity: Review Mental Addition and Subtraction

In first grade, you learned how to add and subtract numbers in your head. This kind of math is called mental math. Mental math is important because it helps you understand numbers, place value, and addition and subtraction more deeply. It also helps get you ready to solve more complicated written addition and subtraction problems. Today, we'll review some of the mental math skills you learned in first grade with a mental math magic show.


Write " $34 + 20 =$ " on a piece of paper. Have your child model the problem with base-ten blocks. **Place-value thinking makes it easier to add 34 plus 20 in your head. 34 is 3 tens and 4 ones. 20 is 2 tens. When I add them together, I have 5 tens and 4 ones.** Have your child complete the written equation: $34 + 20 = 54$.

$$34 + 20 = 54$$


Write the following problems on paper. Model each problem with base-ten blocks and have your child use place-value thinking to solve them.

- $34 + 2 = 36$
- $34 - 2 = 32$
- $34 - 20 = 14$
- $34 - 4 = 30$
- $34 + 6 = 40$

For $34 + 6$, remind your child to trade the 10 units for 1 rod.

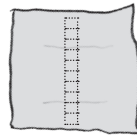
$$34 + 6 = 40$$


Activity: Mental Math Magic with Addition

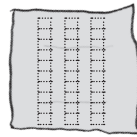
We'll do lots of mental math this year, and we'll use many different activities to make it fun. Today, we'll play Mental Math Magic. We'll pretend I'm a magician, but I'm not very good at it! I need you, my trusty assistant, to help make the show a success.

Always feel free to adjust activities to better fit you and your child. If you and your child enjoy pretending, you can ham it up, add props, and make the activity as elaborate as you like. But if you don't enjoy pretend activities or are pressed for time, simply model the problems as directed and have your child answer the questions without the pretend context.

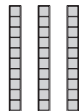
Pretend you're facing an audience, and use your "magician voice" to announce: **I have 10.** Put 1 rod on the table, then cover it with a napkin or piece of paper.



Then, I add 20. Slide 2 rods under the napkin (so that all 3 rods are covered).



Whisper to your child: **How many do I have now, trusty assistant?** 30. Remove the napkin with a flourish, and announce loudly to the pretend audience: **Now there are 30!**



If your child isn't sure, encourage her to visualize the rods under the napkin and use place-value thinking to find the total. If she's still not sure, briefly remove the napkin and allow her to peek.

Continue the "magic show" with the following questions. Keep the pace brisk, but adjust as needed for your child.

- **I have 30. Then, I add 7. How many do I have now, trusty assistant?** 37.
- **I have 37. Then, I add 1. How many do I have now?** 38.
- **I have 38. Then, I add 2. How many do I have now?** 40. Trade the 10 units for 1 rod.
- **I have 40. Then, I add 10. How many do I have now?** 50.
- **I have 50. Then, I add 5. How many do I have now?** 55.
- **I have 55. Then, I add 30. How many do I have now?** 85.
- **I have 85. Then, I add 5. How many do I have now?** 90.
- **I have 90. Then, I add 10. How many do I have now?** 100.

Activity: Mental Math Magic with Subtraction

Now, I will make all of the blocks disappear! Continue the “magic show” with the following questions.

- I have 100. Then, I take away 30. How many do I have now? 70.
- I have 70. Then, I take away 20. How many do I have now? 50.
- I have 50. Then, I take away 10. How many do I have now? 40.
- I have 40. Then, I take away 20. How many do I have now? 20.
- I have 20. Then, I take away 10. How many do I have now? 10.
- I have 10. Then, I take away 10. How many do I have now? 0.

Thank you, assistant! Let’s take a bow!

Workbook: Mental Addition and Subtraction and Review

Have your child complete workbook pages 3.3A and 3.3B.

Lesson 3.4

Review Pairs That Make 100

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count coins Practice memory work Review counting out coins 	<ul style="list-style-type: none"> Coins 3 small school items (i.e., pencil, ruler, eraser)
Activities	<ul style="list-style-type: none"> Understand that you can trade 10 tens for 1 hundred Introduce the hundreds-place Use base-ten blocks to find pairs that make 100 	<ul style="list-style-type: none"> Base-ten blocks Place-Value Chart (Blackline Master 5) Part-Total Mat (Blackline Master 2)
Workbook	<ul style="list-style-type: none"> Use base-ten blocks to find pairs that make 100 	<ul style="list-style-type: none"> Workbook pages 3.4A and 3.4B

Warm-up: Counting, Memory Work, and Review

- Place 2 dimes, 1 nickel, and 5 pennies on the table. **How much are the coins worth?** 30¢.
- How many sides does a triangle have?** 3. **A square?** 4. **A rectangle?** 4.
- Write 17¢, 40¢, 65¢ on separate slips of paper. Place each next to a small school item (like a pencil, ruler, and eraser). Give your child coins and have him pretend to buy the items.



Activity: Trade 10 Tens for 1 Hundred

In the last lesson, we reviewed the tens-place and ones-place. Today, you'll learn about the hundreds-place and use base-ten blocks to find pairs that make 100.

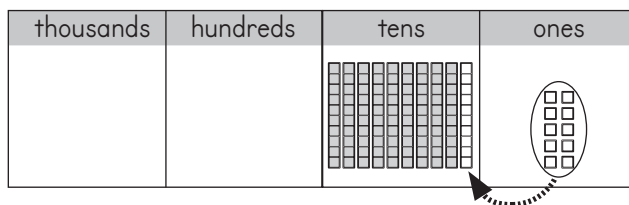
Place 9 rods and 9 units on the Place-Value Chart. (Use both pages of the Place-Value Chart for this lesson.) **How much are the blocks worth?** 99.

thousands	hundreds	tens	ones

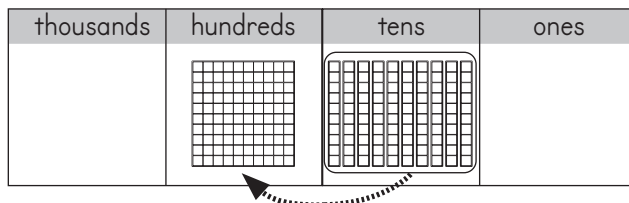
What number comes after 99? 100. Have your child add 1 unit to the Place-Value Chart.

thousands	hundreds	tens	ones

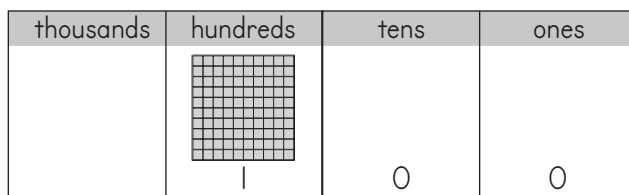
How many ones do you have now? 10. Remember, if we have a group of 10, we have to trade. Help your child trade the 10 units for 1 rod.



How many tens do you have now? 10. Help your child trade the 10 rods for 1 flat and place it in the hundreds-place. **10 tens make 1 hundred.**



Now we're ready to write the digits in the Place-Value Chart. Demonstrate how to write 100 on the Place-Value Chart. **Why is there a zero in the tens-place and ones-place?** *Because there are zero ones and zero tens.*

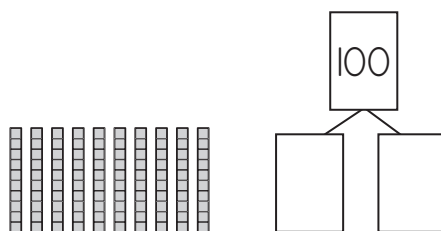


What would happen if I didn't write the zeros in 100? *Sample answers: The number would look like 1. The 1 would be in the wrong place.*

If I don't write the zeros, the 1 will be in the wrong place. We call zeros like these place-holders, because they hold the tens-place and ones-place for the 1. Make sure you always write zeros if they're holding a place for another digit.

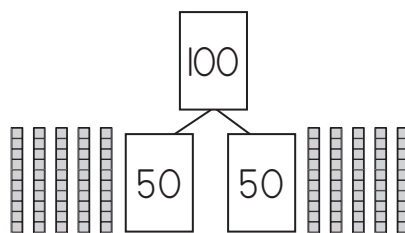
Activity: Find Pairs That Make 100

Place the Part-Total Mat and 10 rods on the table. **Let's pretend we have 10 bars of chocolate to share. We'll pretend each rod is 1 bar, and that each bar of chocolate has 10 pieces. How many pieces of chocolate are in the 10 bars? 100. How do you know? 10 tens make 100.** Write 100 in the total box on the Part-Total Mat.

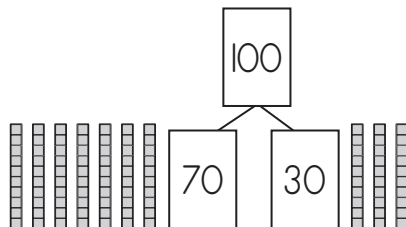


Real-life contexts make math more meaningful and interesting, so you'll often find pretend activities involving food in this book. Always feel free to use a different food than the one suggested to better match your family's eating habits.

Give 5 rods to your child. **Let's pretend we share the chocolate equally. How many pieces of chocolate do each of us get?** 50. Have your child write 50 and 50 on the Part-Total Mat.

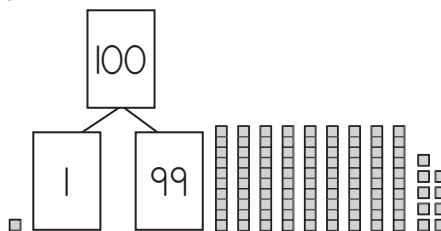


What's another way we could share the bars? *Answers will vary.* Have your child find several ways to share the 10 rods and record each on the Part-Total Mat.

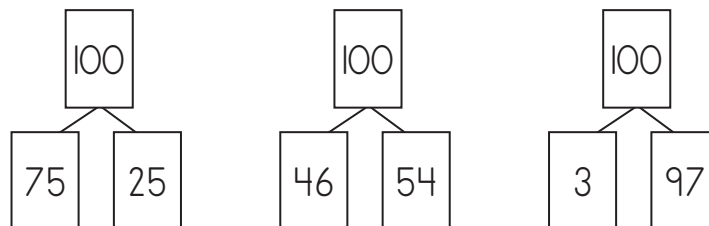


We could also pretend to break 1 of the chocolate bars into 10 pieces. Trade 1 of the rods for 10 units.

Now we have many more ways to share the chocolate! Here's one way. Give your child 1 unit and keep 9 rods and 9 units for yourself. **How many pieces of chocolate do each of us get?** *I get 1 piece, but you get 99!* Have your child record the amounts on the Part-Total Mat.



Have your child find and record several more ways to share the rods and units.



There are 101 different ways to share 100 pieces of chocolate, so we don't have to find all of them!

Workbook: Find Pairs That Make 100 and Review

Have your child complete workbook pages 3.4A and 3.4B.

Lesson 3.5

Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count backward from 100 to 1 Review memory work Review your child’s favorite or most challenging activities from Week 3 	<ul style="list-style-type: none"> Varies, depending on the activities you choose
Picture Book	<ul style="list-style-type: none"> Understand large numbers in the context of animals 	<ul style="list-style-type: none"> <i>Biggest, Strongest, Fastest</i>, by Steve Jenkins
Enrichment Activity	<ul style="list-style-type: none"> Play a classic board game with the numbers to 100 	<ul style="list-style-type: none"> Chutes and Ladders, Rack-O, or 100 Chart (Blackline Master 4), die, and counters

Warm-up: Counting, Memory Work, and Review

- Have your child count backward from 100 to 1.
- Quiz your child on the memory work through Week 2. See page 523 for the full list.

Your child will gradually memorize the full list of memory work on page 523 over the course of the year. New memory work is introduced every 2 weeks, so there is no new memory work on the odd-numbered weeks.

- If you have time, repeat one or two of the activities from this week’s lessons. Choose activities your child especially enjoyed or found challenging.

Math Picture Book: *Biggest, Strongest, Fastest*

Read *Biggest, Strongest, Fastest*, by Steve Jenkins. As you read, marvel at the animals and discuss the numbers you and your child encounter in the book.

Enrichment Activity: Play a Classic Game

Play a classic board game with your child that uses the numbers to 100, such as Chutes and Ladders or Rack-O.

If you don’t own either of these games, make a simple Chutes and Ladders board from your 100 Chart. To make the board, place the 100 Chart in a plastic page protector and use a dry-erase marker to draw a few ladders and chutes.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

To play, have each player place a counter on the box labeled 100. Take turns rolling a die and moving backwards the corresponding number of spaces. If you land on a chute, slide your piece down it to the box at the bottom of the chute. If you land on a ladder, slide your piece up the ladder to the box at the top. Continue until one player reaches 100.

Week 3 Answer Key

3.1A

Match.

60

34

16

38

50

46

3.1B

Complete.

Copy the shape.

Use the key to color the leaves.

Key
9 - red
10 - orange

7+2, 6+4, 8+1, 6+3, 5+4, 8+2, 5+5, 7+3, 9+1

3.2A

Write the value of each set of base-ten blocks.

10s	1s
4	3

10s	1s
3	4

10s	1s
4	6

10s	1s
6	4

10s	1s
7	1

10s	1s
7	0

10s	1s
	7

10s	1s
1	7

3.2B

Complete.

2 $\xrightarrow{+2}$ 4 $\xrightarrow{+2}$ 6 $\xrightarrow{+2}$ 8 $\xrightarrow{+2}$ 10

5 $\xrightarrow{+5}$ 10 $\xrightarrow{+5}$ 15 $\xrightarrow{+5}$ 20 $\xrightarrow{+5}$ 25

3 $\xrightarrow{+3}$ 6 $\xrightarrow{+1}$ 7 $\xrightarrow{+3}$ 10 $\xrightarrow{+6}$ 16

Label the numbers on the number line.

43, 48, 51, 55, 60

Complete.

7 - 4 = 3 6 - 3 = 3 7 - 1 = 6

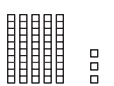
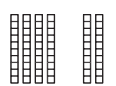
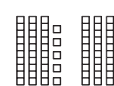
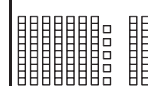




6 - 1 = 5 8 - 0 = 8 6 - 4 = 2

9 - 3 = 6 10 - 4 = 6 8 - 2 = 6

Week 3 Answer Key

3.3A

Complete.

 $50 + 3 = \boxed{53}$	 $40 + 20 = \boxed{60}$
 $35 + 30 = \boxed{65}$	 $75 + 20 = \boxed{95}$
 $46 - 3 = \boxed{43}$	 $60 - 20 = \boxed{40}$
 $32 - 2 = \boxed{30}$	 $71 - 30 = \boxed{41}$

3.3B

Color the addition facts that equal the number in the star.

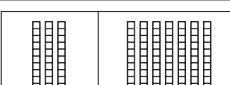
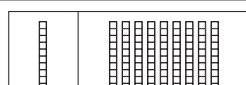
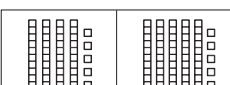
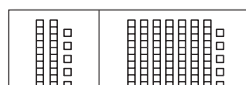
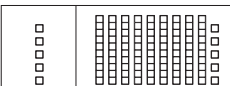
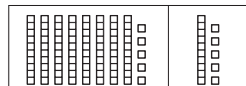
★ 7	★ 8	★ 9	★ 10
$4 + 3$	$7 + 2$	$3 + 6$	$3 + 7$
$6 + 2$	$4 + 4$	$9 + 0$	$9 + 1$
$2 + 5$	$6 + 1$	$5 + 4$	$6 + 5$
$7 + 0$	$3 + 5$	$1 + 8$	$8 + 2$

Complete the missing numbers in the sequences.

Count by 2s	60	62	64	66	68	70
Count by 5s	20	25	30	35	40	45
Count by 10s	50	60	70	80	90	100

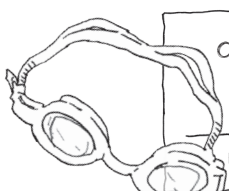
3.4A

Complete.



 100 $\begin{matrix} 30 & 70 \end{matrix}$	 100 $\begin{matrix} 10 & 90 \end{matrix}$
 100 $\begin{matrix} 45 & 55 \end{matrix}$	 100 $\begin{matrix} 25 & 75 \end{matrix}$
 100 $\begin{matrix} 5 & 95 \end{matrix}$	 100 $\begin{matrix} 85 & 15 \end{matrix}$

3.4B

Sarah made a bar graph about the children in her swim class. Use the bar graph to answer the questions.



Children in My Swim Class

Girls	
Boys	

How many girls are in the class? 3	How many more boys than girls are in the class? 2
How many boys are in the class? 5	How many children are in the class? 8

Complete.

$4 - 1 = \boxed{3}$	$7 - 3 = \boxed{4}$	$8 - 4 = \boxed{4}$
$9 - 2 = \boxed{7}$	$10 - 2 = \boxed{8}$	$4 - 2 = \boxed{2}$
$3 - 3 = \boxed{0}$	$10 - 1 = \boxed{9}$	$5 - 0 = \boxed{5}$

Complete the circles with $<$, $>$, or $=$.

$42 > 36$	$87 > 85$	$39 < 79$
$7 < 70$	$15 < 50$	$94 = 94$

Unit 1 Checkpoint

What to Expect at the End of Unit 1

By the end of Unit 1, most children will be able to do the following:

- Solve most addition and subtraction facts with numbers to 10 (like $7 + 2$ or $8 - 3$) mentally and in less than 3 seconds.
- Write addition and subtraction fact families.
- Begin to read and write the $<$, $>$, and $=$ signs to compare numbers to 100. Most second graders will still be working on this and need help remembering the difference between the greater-than and less-than signs.
- Use reasoning and counting to identify numbers on the number line.
- Represent numbers to 100 with base-ten blocks and understand their digits' place value.
- Use base-ten blocks to identify pairs that make 100 (like 99 and 1, or 60 and 40).
- Solve simple mental addition and subtraction problems (like $45 + 3$ or $87 - 20$), either mentally or with base-ten blocks.

Is Your Child Ready to Move on?

In Unit 2 your child will learn the addition facts with sums to 20. Before moving on to Unit 2, your child should be able to find answers to most addition facts with sums to 10 mentally and in less than 3 seconds.

Your child does not need to fully master the rest of the Unit 1 skills before moving on to Unit 2. She will continue to practice comparing numbers, identifying numbers on the number line, and place value with the numbers to 100 during the warm-ups and review workbook pages.

What to Do If Your Child Needs More Practice

If your child needs more practice with the sums to 10, spend another day or two playing Addition Climb and Slide before moving on to Unit 2.

Lesson 8.4

Practice Counting Money

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 2s Practice memory work Review word problems 	<ul style="list-style-type: none"> None
Activities	<ul style="list-style-type: none"> Count money combinations that include quarters 	<ul style="list-style-type: none"> Play money Coins Savings Game game board (from workbook page 8.4A) Die Counters
Workbook	<ul style="list-style-type: none"> Assess addition fact mastery 	<ul style="list-style-type: none"> Workbook page 8.4B

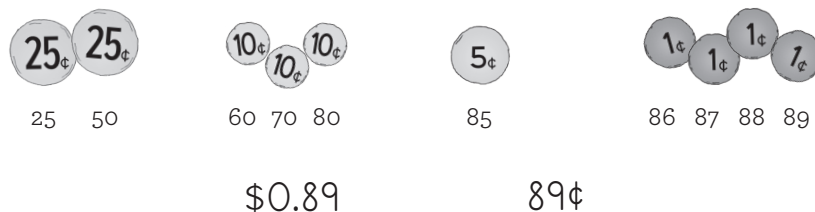
Warm-up: Counting, Memory Work, and Review

- Have your child count by 2s from 180 to 200.
- If a number has 1, 3, 5, 7, or 9 in the ones-place, is the number even or odd? *Odd.***
If a number has 0, 2, 4, 6, or 8 in the ones-place, is the number even or odd? *Even.*
- Have your child write a matching equation for each of the following word problems and solve.
 - × **You earn \$6 on Monday and \$8 on Tuesday. How much do you earn in all?**
 $6 + 8 = 14$. \$14.
 - × **You have \$12, and you want to buy something that costs \$15. How much more money do you need?** $12 + _3_ = 15$, or $15 - 12 = 3$. \$3.
 - × **You earn \$8. Then, you spend \$4. How much money do you have left?**
 $8 - 4 = 4$. \$4.

Activity: Count Coin Combinations with Quarters

This week, you've learned how to count money and use a decimal point to write dollars and cents. Today, you'll practice counting money combinations that include quarters.

Mix up 2 quarters, 3 dimes, 1 nickel, and 4 pennies on the table. Have your child sort the coins by type, put the piles in order by coin value, and count them: 25, 50, 60, 70, 80, 85, 86, 87, 88, 89. Have him write the amount two ways: with a cents sign, and with a dollar sign and decimal point.



If your family's currency includes twenty-cent coins rather than quarters, use them instead of quarters in this activity.

Mix up the following money combinations and give them to your child. Have him find the value of each combination and write it with a dollar sign and decimal point.

- 1 five-dollar bill, 1 quarter, 3 nickels, 6 pennies. \$5.46.
- 3 one-dollar bills, 2 quarters, 1 dime, 1 nickel, 3 pennies. \$3.68
- 5 ten-dollar bills, 2 one-dollar bills, 3 quarters, 1 nickel, and 4 pennies. \$52.84

Activity: Play the Savings Game

We're going to play the Savings Game to practice counting money. Play the Savings Game.

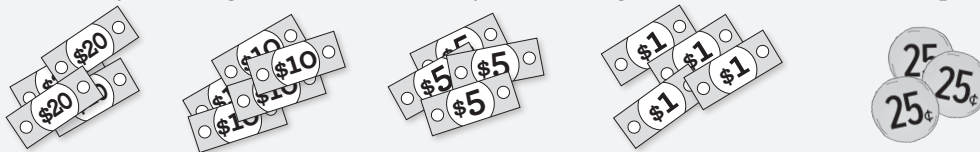
The Savings Game

Materials: The Savings Game game board (from workbook page 8.4A); play money and coins (twenty-dollar bills, ten-dollar bills, five-dollar bills, one-dollar bills, and quarters); die; counters

Object of the Game: Be the first person to save \$100.

Have each player choose a different-colored counter to use as a game token and place it on one of the Start squares. Give each player 2 twenty-dollar bills, 2 ten-dollar bills, 2 five-dollar bills, 2 one-dollar bills, and 2 quarters to start. This is your “savings” that you will add to or spend from during the game.

Place the rest of the play money and coins on the table, in order from greatest value to lowest value. When you “earn” money in the game, take it from these piles. When you “spend” money in the game, take it from your savings and return it to these piles.



On your turn, roll the die and advance your token the corresponding number of squares clockwise around the path. Follow the directions on the square (by either “earning” or “spending” money). Count your savings and announce your current total. Play then passes to the other player.

The first player to have \$100 wins the game.

If your child needs extra practice reading and writing money with a dollar sign and decimal point, record your scores on a simple scorecard after each turn.

Trade your quarters and bills as needed to make counting and “spending” simpler. For example, if you land on the square that directs you to spend 75¢ but only have 1 quarter, trade a one-dollar bill for 4 quarters.

Workbook: Assess Addition Fact Mastery

Have your child complete workbook page 8.4B. Have him work horizontally across each row.

If your child is overwhelmed by the number of problems on the page, ask him the problems orally instead. Note whether he knows the correct answer, and give him at least 3 seconds to respond to each question.

Workbook pages 8.3B and 8.4B together provide an informal assessment of how well your child has mastered the addition facts. See the Unit 3 Checkpoint for guidance for assessing your child’s progress.

Lesson 11.4

Subtraction Word Problems at the Pretend Store

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count money Practice memory work Review -2, -3, -4, -5 facts 	<ul style="list-style-type: none"> Play money Four in a Row game board (from workbook page 11.1A) Counters
Activities	<ul style="list-style-type: none"> Review addition and subtraction word problems in the context of money 	<ul style="list-style-type: none"> 6 small toys 6 slips of paper Play money
Workbook	<ul style="list-style-type: none"> Solve money word problems 	<ul style="list-style-type: none"> Workbook pages 11.4A and 11.4B

Warm-up: Counting, Memory Work, and Review

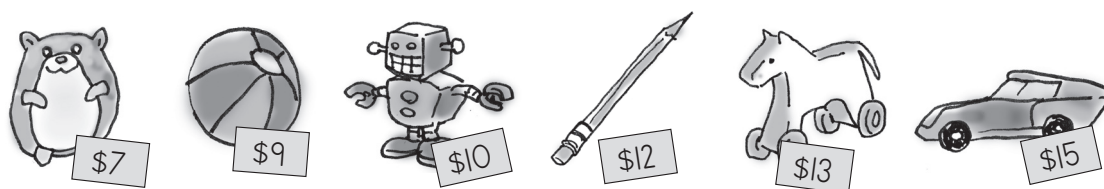
- Place 5 twenty-dollar bills, 1 ten-dollar bill, 4 five-dollar bills, and 2 one-dollar bills on the table. **How much is the money worth?** \$132.
- What do we call the result when we add numbers together?** *The sum.* **What do we call the result when we subtract a number from another number?** *The difference.*
- Play Four in a Row. See Lesson 11.1 (page 176) for directions.

If your child already knows the -2, -3, -4, and -5 facts well, you can play a different subtraction game from this unit instead.

Activity: Solve Word Problems at the Pretend Store

You have learned how to use addition and subtraction to solve many different types of word problems. Today, you're going to practice solving word problems at the pretend store.

Write \$7, \$9, \$10, \$12, \$13, and \$15 on small slips of paper to make price tags. Lay 6 small toys in a row and have your child place a price tag next to each toy. Also place play money on the table to use.



Act out each of the following problems with the toys in your pretend store. Have your child write an equation to match each problem and solve. He may take bills from the piles of play money as needed.

- Give your child 1 ten-dollar bill, 1 five-dollar bill, and 2 one-dollar bills. **You have \$17. Then, you buy the item that costs \$10. Have your child pay \$10. How much money do you have left?** \$7.



- You buy the item that costs \$7 and the item that costs \$12. How much do you pay? \$19.

$$\boxed{\$7} \quad \boxed{\$12} \quad 7 + 12 = 19$$

- Which item costs \$3 more than the \$12 item? *The \$15 item.*

$$\boxed{\$12} \quad 12 + 3 = 15$$

- How much more does the \$13 item cost than the \$9 item? \$4.

$$\boxed{\$13} \quad \boxed{\$9} \quad 13 - 9 = 4$$

- Give your child 1 five-dollar bill and 3 one-dollar bills. You have \$8. You want to buy the item that costs \$13. How much more money do you need? \$5.




$$13 - 8 = 5$$

$$8 + \underline{5} = 13$$

- How much less does the \$7 item cost than the \$12 item? \$5.

$$\boxed{\$7} \quad \boxed{\$12} \quad 12 - 7 = 5$$

- You spend \$16 to buy 2 items. One costs \$9. How much does the other item cost? \$7.



$$16 - 9 = 7$$

- Which item costs \$5 less than the \$15 item? *The \$10 item.*

$$\boxed{\$15} \quad 15 - 10 = 5$$

If you have time, invite your child to make up some word problems about the pretend store, too.

Workbook: Subtraction Word Problems and Review

Have your child complete workbook pages 11.4A and 11.4B.

Lesson 13.2

Pictographs and Bar Graphs with Increments of 10

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count dimes by 10s Practice memory work Review subtraction facts 	<ul style="list-style-type: none"> Coins Four in a Row game board (from workbook page 11.1A) Counters
Activities	<ul style="list-style-type: none"> Interpret pictographs and bar graphs with an increment of 10 Use addition and subtraction to answer questions about pictographs 	<ul style="list-style-type: none"> Workbook page 13.2A
Workbook	<ul style="list-style-type: none"> Review previously-learned material 	<ul style="list-style-type: none"> Workbook page 13.2B


Warm-up: Counting, Memory Work, and Review

- Place a handful of dimes on the table. **About how many cents do you think the coins are worth?** *Answers will vary.* Have your child count the dimes by 10s to find their value.
- If a number has 1, 3, 5, 7, or 9 in the ones-place, is the number even or odd?** *Odd.*
If a number has 0, 2, 4, 6, or 8 in the ones-place, is the number even or odd? *Even.*
- Play Four in a Row. See Lesson 11.1 (page 176) for directions.

Activity: Interpret a Pictograph with an Increment of 10

In the last lesson, you learned how to draw and interpret pictographs. In one of the pictographs, each circle stood for 1 cookie. In the other pictograph, each circle stood for 2 cookies. Today, you'll learn about pictographs where each picture stands for 10.

Show your child workbook page 13.2A and read aloud the directions at the top. Point to the key on the pictograph. **What does each soccer ball stand for?** *10 minutes of playing soccer.*

 = 10 minutes

Each soccer ball stands for 10 minutes. So, what number should we count by to find how much time Tommy spent playing soccer? *10.* Have your child count the soccer balls by 10s to complete the chart.

Day	Minutes
Monday	30
Tuesday	20
Wednesday	50

See the Week 13 **Teaching Math with Confidence** for more on using increments other than 1 in graphs.

Briefly discuss the pictograph and chart with these questions.

- Which day did Tommy play soccer the most?** *Wednesday.*

- Which day did Tommy play soccer the least? *Tuesday.*
- How many minutes did Tommy play soccer on Monday and Tuesday? *50 minutes.* Have your child write an addition equation to match: $30 + 20 = 50$.
- How many minutes more did Tommy play soccer on Monday than on Tuesday? *10 minutes.* Have your child write a subtraction equation to match: $30 - 20 = 10$.
- Tommy played soccer 10 minutes longer on Monday than Tuesday, but the difference between the rows on the pictograph is just 1 soccer ball. Why? *Sample answer: Each soccer ball stands for 10 minutes.*
- How many minutes less did Tommy play soccer on Tuesday than on Wednesday? *30 minutes.* Have your child write a subtraction equation to match: $50 - 20 = 30$.

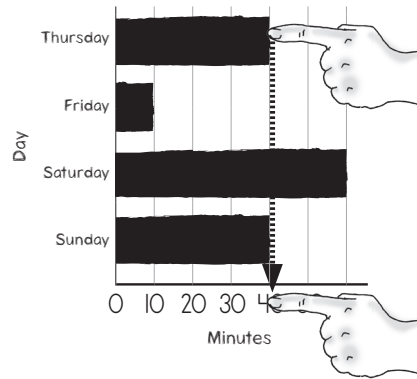
Even if your child finds the answer to the last question visually, have him write the matching subtraction equation anyway. This solidifies his understanding of how to use subtraction to compare and also prepares him to solve comparison problems with greater numbers.

Activity: Interpret a Bar Graph with an Increment of 10

Tommy liked seeing how much time he spent playing soccer, so he decided to keep recording his minutes for the rest of the week. This time, he made a bar graph. Read your child the directions at the bottom of workbook page 13.2A.

What number did Tommy count by when he wrote the numbers on the horizontal axis? *10. Why do you think he did that? Sample answer: It would take a long time to write all the numbers to 60!*

Which bar shows how long he played soccer on Thursday? *Child points to bar for Thursday.* Show your child how to point to the end of the bar and then slide his finger down to find the corresponding number of minutes.



How many minutes did Tommy play soccer on Thursday? *40.* Have your child write 40 in the corresponding spot on the chart. Then have him read the bar graph to complete the rest of the chart.

Day	Minutes
Thursday	40
Friday	10
Saturday	60
Sunday	40

Briefly discuss the bar graph and matching chart with these questions.

- **Which day did Tommy play soccer the most?** *Saturday.*
- **Which day did Tommy play soccer the least?** *Friday.*
- **Which two days did Tommy play soccer the same amount of time?** *Thursday and Sunday.* Point out that the bars for these two days are the same length.
- **How many minutes did Tommy play soccer on Thursday and Friday?** *50 minutes.* Have your child write an addition equation to match: $40 + 10 = 50$.
- **How many minutes more did Tommy play soccer on Thursday than Friday?** *30 minutes.* Have your child write a subtraction equation to match: $40 - 10 = 30$.
- **How many minutes less did Tommy play soccer on Friday than on Saturday?** *50 minutes.* Have your child write a subtraction equation to match: $60 - 10 = 50$.

Workbook: Review

Have your child complete workbook page 13.2B.

Lesson 14.1

Use Related Addition Facts to Add One-Digit Numbers

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count money Practice memory work Review mental addition 	<ul style="list-style-type: none"> Play money Base-ten blocks, optional
Activities	<ul style="list-style-type: none"> Use related addition facts to add one-digit numbers to two-digit numbers 	<ul style="list-style-type: none"> Base-ten blocks Double ten-frames (Blackline Master 1) Workbook page 14.1A Die
Workbook	<ul style="list-style-type: none"> Review previously-learned material 	<ul style="list-style-type: none"> Workbook page 14.1B

Warm-up: Counting, Memory Work, and Review

- Place 3 twenty-dollar bills, 3 five-dollar bills, and 6 one-dollar bills on the table. **How much is this money worth?** \$81.
- How many hours are in a day?** 24. **How many minutes are in an hour?** 60. **How many seconds are in a minute?** 60.
- Write the following problems on paper and have your child solve them mentally. Allow her to use base-ten blocks as needed.
 - \times $43 + 4 = 47$
 - \times $47 + 3 = 50$
 - \times $50 + 28 = 78$
 - \times $78 + 2 = 80$
 - \times $80 + 20 = 100$

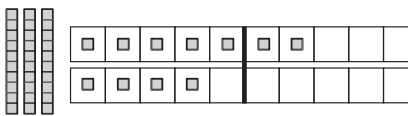
Activity: Use Related Addition Facts to Add One-Digit Numbers to Two-Digit Numbers

You already know how to solve mental addition problems like $42 + 3$ or $37 + 20$. In this unit, you'll learn how to solve more difficult addition problems in your head.

This week, we'll focus on mentally adding one-digit numbers to two-digit numbers. You'll learn two different strategies for these problems, and you can use whichever strategy works best for you.

See the Week 14 **Teaching Math with Confidence** for more on using multiple strategies to solve mental math problems.

Today, you'll learn how to use related addition facts to add one-digit numbers to two-digit numbers. Show your child the first problem at the top of workbook page 14.1A ($37 + 4$). Model the problem with base-ten blocks and the ten-frames as shown.

$$37 + 4 = \boxed{}$$


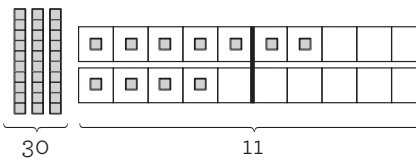
Before we add, let's split 37 into tens and ones. That will make it easier to use a related addition fact to find the sum. What's the expanded form of 37? 30 plus 7. Draw part-total lines below 37 to split it into 30 and 7.

$$37 + 4 = \boxed{}$$

$$\begin{array}{r} 37 \\ \swarrow \searrow \\ 30 \quad 7 \end{array}$$

Now, you can use the related addition fact to add the ones. Point to the unit blocks on the ten-frames. What's 7 plus 4? 11.

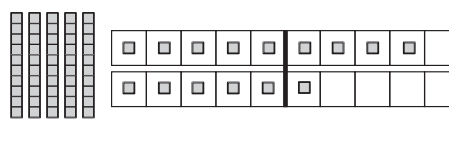
What's 30 plus 11? 41. So, 37 plus 4 equals 41. Have your child complete the written equation: $37 + 4 = 41$.

$$37 + 4 = \boxed{41}$$


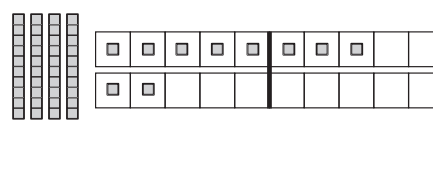
Your child does not need to trade 10 units for 1 rod, but she may if she'd like to verify the blocks' value.

Have your child solve the rest of the problems at the top of workbook page 14.1A in the same way.

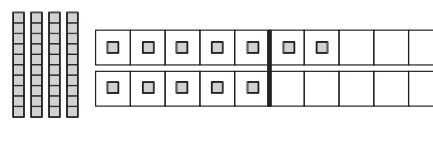
$$59 + 6 = \boxed{65}$$

$$\begin{array}{r} 59 \\ \swarrow \searrow \\ 50 \quad 9 \end{array}$$


$$48 + 2 = \boxed{50}$$

$$\begin{array}{r} 48 \\ \swarrow \searrow \\ 40 \quad 8 \end{array}$$


$$47 + 5 = \boxed{52}$$

$$\begin{array}{r} 47 \\ \swarrow \searrow \\ 40 \quad 7 \end{array}$$


Activity: Play Roll and Add

Play Roll and Add.

If your child is still beginning to understand how to add these numbers, model every problem with base-ten blocks. If your child is ready for more challenge, encourage her to find the sums in the game mentally. She will practice mental addition more throughout Week 14.

Roll and Add

Materials: Die; Roll and Add game board from workbook page 14.1

Object of the Game: Win the most points.

Roll and Add has 5 rounds. In each round, both players roll the die, write the corresponding number in the blank on the scorecard, and find the sum of the printed number and written number. Whoever has the greater sum wins a point. If the sums are equal, both players win a point.

For example, if Player 1 rolls a 4 and Player 2 rolls a 2 in the first round:

Player 1		Player 2	
29 +	<input type="text" value="4"/>	=	<input type="text" value="33"/>
29 +	<input type="text" value="2"/>	=	<input type="text" value="31"/>

Player 1 wins the point, since 33 is greater than 31.

Play until you have completed the entire scorecard. Whoever has won more points wins the game.

Workbook: Review

Have your child complete workbook page 14.1B.

Lesson 16.5

Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count backward by 1s, 2s, 5s, or 10s Review memory work Review your child's favorite or most challenging activities from Week 16 	<ul style="list-style-type: none"> Varies, depending on the activities you choose
Picture Book	<ul style="list-style-type: none"> Understand telling time in a real-life context 	<ul style="list-style-type: none"> <i>It's About Time, Max!</i>, written by Kitty Richards and illustrated by Gioia Flammenghi
Enrichment Activity	<ul style="list-style-type: none"> Estimate seconds 	<ul style="list-style-type: none"> Timer

Warm-up: Counting, Memory Work, and Review

- Have your child count backward from 200 to 100 by 1s, 2s, 5s, or 10s. (Choose whichever counting sequence your child needs to practice the most.)
- Quiz your child on the memory work through Week 16. See page 523 for the full list.
- If you have time, repeat one or two of the activities from this week's lessons. Choose activities your child especially enjoyed or found challenging.

Math Picture Book: *It's About Time, Max!*

Read *It's About Time, Max!*, written by Kitty Richards and illustrated by Gioia Flammenghi. As you read, point out the clocks in the illustrations and discuss how Max finds the times.

Enrichment Activity: Estimate Seconds While Balancing on One Foot

Seconds are very short! It takes about a second to say the word Mississippi. Have your child balance on one foot for as long as he can. Have him count "Mississippis" to estimate how long he balances: *1 Mississippi, 2 Mississippi, 3 Mississippi...*

At the same time, use a timer to measure how long he balances. Then, compare his estimate with the actual length of time and discuss how close the measurements are. For example: **The timer measured 12 seconds, and you counted 11 Mississippis. That's pretty close!**

Repeat several times. Have your child try balancing on both the left and right foot, and also have him try balancing with his eyes closed.

If your family typically uses a different word to estimate seconds (such as "thousand" or "potato"), feel free to use that word instead.

Lesson 20.4

Yards and Miles

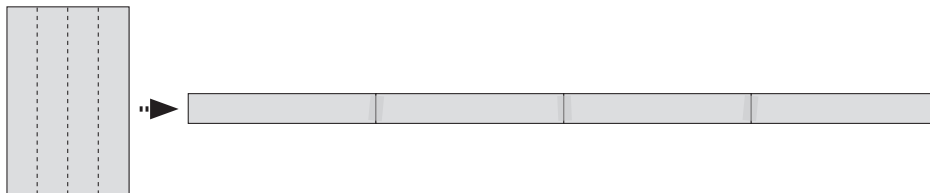
	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by quarter-hour intervals Practice memory work Review mental subtraction 	<ul style="list-style-type: none"> Clock Base-ten blocks, optional
Activities	<ul style="list-style-type: none"> Introduce yards and miles Learn that 3 feet (or 36 inches) equal 1 yard Identify whether objects are shorter, longer, or equal to a yard 	<ul style="list-style-type: none"> Paper Scissors Tape 1-foot ruler
Workbook	<ul style="list-style-type: none"> Choose a sensible unit for a given length 	<ul style="list-style-type: none"> Workbook pages 20.4A and 20.4B

Warm-up: Counting, Memory Work, and Review

- Set the clock to 11:00. Have your child count by quarter-hour intervals from 11:00 to 1:00. Have him turn the clock’s hands to match each time.
- How many minutes equal a half-hour? 30.**
How many minutes equal a quarter-hour? 15.
- Write the following problems on paper and have your child solve them mentally. Allow him to use base-ten blocks as needed.
 - × $32 - 6 = 26$
 - × $45 - 8 = 37$
 - × $70 - 9 = 61$
 - × $43 - 25 = 18$
 - × $94 - 36 = 58$

Activity: Make a Paper Yardstick

This week, you have learned about inches and feet. Today, you will learn about yards and miles. We’re going to make a paper strip that’s 1 yard long. First, we need a long strip of paper to measure. Help your child fold a piece of copy paper into fourths, cut the paper along the fold lines, and tape the strips together.



3 feet equal 1 yard. Let’s measure to make the paper strip 3 feet long. Help your child use the 1-foot ruler to mark 1-foot increments along the edge of the strip. Number each mark and continue until he’s measured out 3 feet.

Have your child draw a line at the 3-foot mark and cut along the line. Have him write “1 yard” on the back of the strip.



Discuss your child’s experiences with yards. For example: **The lanes at the swimming pool are 25 yards long. A football field is 100 yards long.**

If your family uses the metric system, explain that a yard is a little shorter than a meter. Your child will learn about meters in Week 21.

Do you think you're taller or shorter than 1 yard? *Answers will vary.* Hold the paper yardstick vertically and compare it to your child's height.

Try to hold your hands about one yard apart. Child holds hands about one yard apart. Place the paper yardstick between his hands to check his estimate.

3 feet equal 1 yard. How many inches are in 1 foot? *12.* **So, how can we find how many inches are in a yard?** *Add 12 plus 12 plus 12.* Write $12 + 12 + 12 =$ on a piece of paper and have your child find the sum mentally.

$$12 + 12 + 12 = 36$$

Your child will memorize the number of inches and feet that equal a yard in the memory work in Week 22.

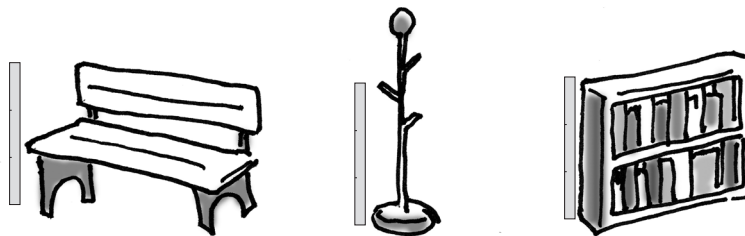
Activity: 1 Yard Scavenger Hunt

Now, we're going to go on a scavenger hunt. This scavenger hunt has 3 parts.

First, find 3 pieces of furniture shorter than a yard. *Sample answers: stepstool, lamp, bench.* Have your child compare each object with the paper yardstick to check.

Next, find 3 pieces of furniture taller than a yard. *Sample answers: refrigerator, large bookcase, coat rack.* Have your child compare each object with the paper yardstick.

Last, find 3 pieces of furniture about a yard tall. *Sample answers: couch, kitchen counter, small bookcase.* Again, have your child compare each object with the paper yardstick.



Finding objects that exactly equal a yard may be difficult. It's fine if these objects are several inches longer or shorter than a yard.



Save this paper yardstick to compare with a paper meterstick in Lesson 21.3.

Activity: Introduce Miles

Now you've learned about inches, feet, and yards. We use these units for measuring objects and short distances. But when we need to measure longer distances, we use miles. 1 mile is 5,280 feet long!

Your child does not need to memorize how many feet equal a mile.

Discuss your child's experiences with miles, and tell him the length of some familiar trips in miles. For example: **The walk to the library is about 1 mile. Our bike ride last week was 6 miles long. Grandma and Grandpa's house is about 20 miles away.**

See Lesson 20.5 for an enrichment activity to help make this abstract idea of miles more concrete.

Workbook: Choose a Sensible Unit and Review

Have your child complete workbook pages 20.4A and 20.4B.

Lesson 22.3

Add Two-Digit Numbers with Sums Greater than 100

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 3s Practice memory work Review measuring in centimeters 	<ul style="list-style-type: none"> Counters 30-centimeter (or 1-foot) ruler, marked in centimeters Several writing utensils of different lengths
Activities	<ul style="list-style-type: none"> Use the addition algorithm to add two-digit numbers with a sum greater than 100 Trade 10 tens for 1 hundred when adding 	<ul style="list-style-type: none"> Addition Algorithm diagram (from workbook page 22.2A) Workbook pages 22.3A Base-ten blocks Place-Value Chart (Blackline Master 5) Paper clip
Workbook	<ul style="list-style-type: none"> Review previously-learned material 	<ul style="list-style-type: none"> Workbook page 22.3B

Warm-up: Counting, Memory Work, and Review

- Arrange 7 groups of 3 counters on the table. Have your child count by 3s to find the total number of counters: 3, 6, 9, 12, 15, 18, 21. If she has trouble, encourage her to add 3 to her previous number.



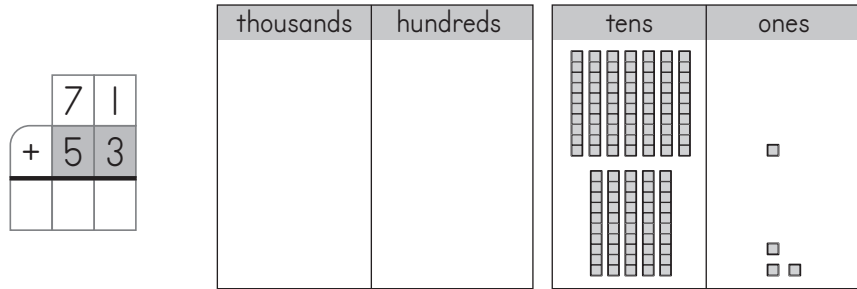
- How many inches equal 1 foot? 12. How many feet equal 1 yard? 3. How many inches equal 1 yard? 36.**
- Place several writing utensils of different lengths on the table, such as crayons, pencils, or markers. Have your child estimate the length of each object in centimeters and then use a ruler to measure its actual length.

Activity: Add Two-Digit Numbers with a Sum Greater Than 100

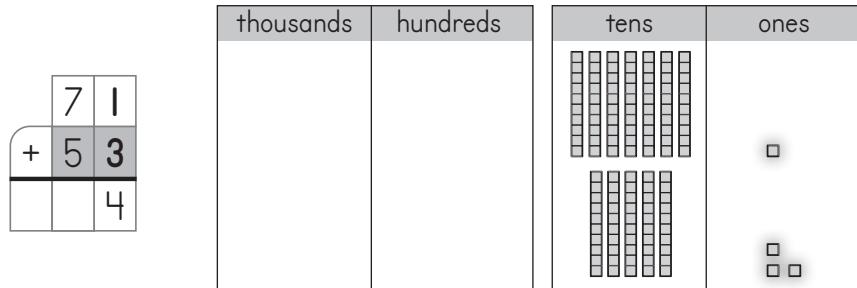
In the last two lessons, you learned how to use the addition algorithm to add two-digit numbers. Today, you'll learn how to use the addition algorithm to add two-digit numbers when the sum is greater than 100.

We'll use the **Addition Algorithm** diagram from the last lesson to help remember the **steps**. Place workbook page 22.2A on the table for your child to refer to as needed.

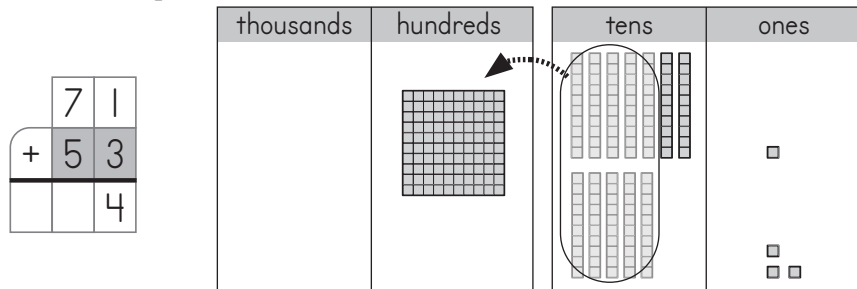
Point to the first exercise on workbook page 22.3A ($71 + 53$). Have your child model 71 and 53 with base-ten blocks on the Place-Value Chart. Use both pages of the Place-Value Chart.



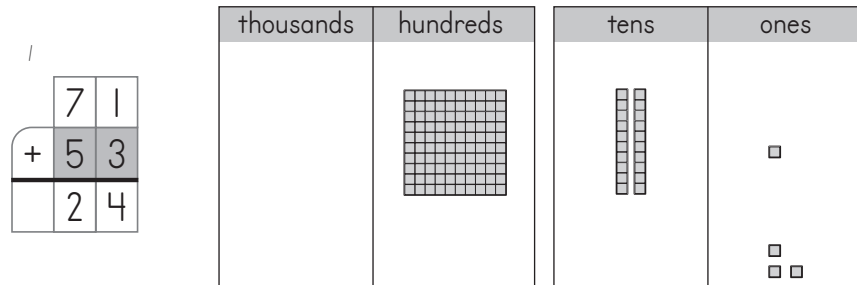
Which place do we start with? *The ones-place.* Have your child add the digits in the ones-place and record their sum. If she has trouble remembering the steps, have her refer to the Addition Algorithm diagram (from workbook page 22.2A).



What do we do next? *Follow the steps for the tens-place.* Have your child follow the steps to add the digits in the tens-place and trade 10 rods for 1 flat.

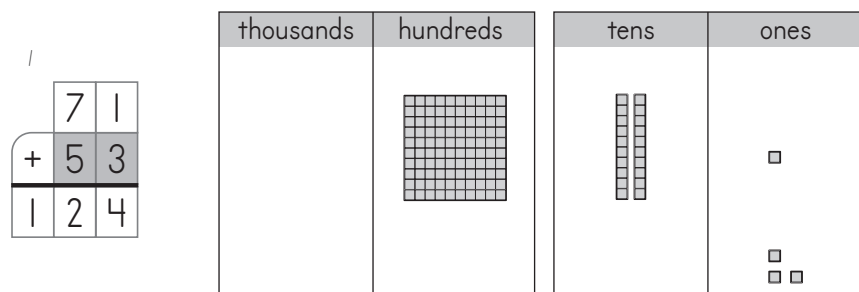


What's the last step? *Record.* **You added 1 hundred to the hundreds-place.** Have your child write a 1 above the hundreds-place as shown. **That leaves 2 tens in the tens-place, so write a 2 in the tens-place.** Have your child write 2 in the answer's tens-place.



Writing 1 above the hundreds-place makes clear that your child traded 10 tens for 1 hundred. It also previews the trading and recording that your child will do when she adds 3-digit numbers in Unit 14. If your child comments that this step is unnecessary, she may write the 1 directly in the answer's hundreds-place instead.

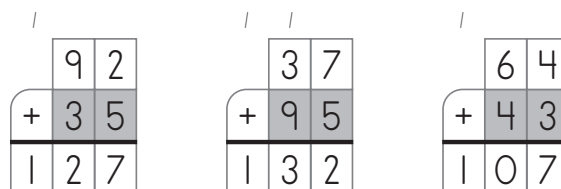
The only digit in the hundreds-place is 1, so the sum of the digits in the hundreds-place is 1. Have your child write 1 in the answer's hundreds-place. **So, what's 71 plus 53?** 124.



Continue in the same way with the other 3 problems in the top row of the workbook page.

For $37 + 95$, point out that you trade both the ones and the tens: **In two-digit addition problems, we can trade the ones, or the tens, or both.**

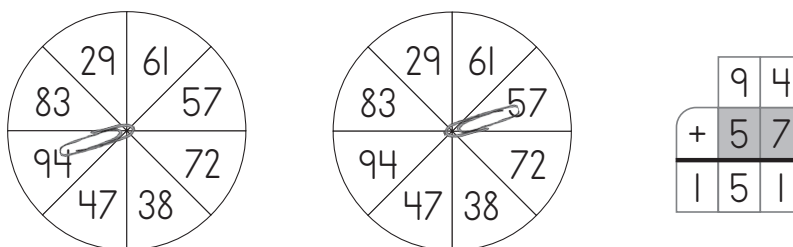
For $64 + 43$, point out that it's important to write a zero in the sum's tens-place as a placeholder: **If you didn't write a zero in the tens-place, the answer would look like 17 instead of 107!**



Some children resist using the addition algorithm because they prefer to use mental math. If your child does this, praise his mental math skills. Explain that practicing the addition algorithm with two-digit numbers prepares him to solve problems with big numbers that are difficult to add mentally. If he's interested, demonstrate how you use the addition algorithm to solve a problem with many digits.

Activity: Play Spin to Win

Play Spin to Win. See Lesson 14.2 (page 228) for full directions. Use workbook page 22.3A. Spin the paper clip on the spinner twice per turn. Write each number in a blank grid and then find the sum of your two numbers.



Spin twice each turn. Then, find the sum of the two spins.

Alternating plays with your child provides her with many examples of how to correctly solve the problems. Keep a close eye on your child as she records the written steps, and immediately correct any mistakes. Model the problems with base-ten blocks as needed.

Workbook: Review

Have your child complete workbook pages 22.3B.

Lesson 24.2

Polygon Puzzles

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 3s Practice memory work Review subtraction facts 	<ul style="list-style-type: none"> Base-ten blocks Four in a Row game board (from workbook page 11.1A) Counters
Activities	<ul style="list-style-type: none"> Identify attributes of triangles and quadrilaterals Identify right angles Develop spatial skills by creating polygons with geometric puzzle pieces 	<ul style="list-style-type: none"> Mosaic puzzle pieces (Blackline Master 8), cut apart
Workbook	<ul style="list-style-type: none"> Develop spatial skills by filling in outlines with puzzle pieces 	<ul style="list-style-type: none"> Workbook pages 24.2A and 24.2B Mosaic puzzle pieces (Blackline Master 8), cut apart

Warm-up: Counting, Memory Work, and Review

- Have your child count by 3s to 30.
- How many centimeters equal 1 meter?** 100.
- Play Four in a Row. See Lesson 11.1 (page 176) for directions,

Activity: Sort and Discuss Triangles and Quadrilaterals

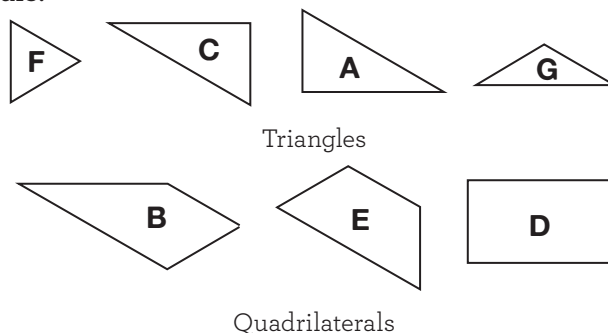
In the last lesson, you learned that polygons are flat, closed shapes with straight sides.

We'll use special puzzle pieces to make polygons today. Show your child the cut-apart mosaic puzzle pieces from Blackline Master 8. Give him a few minutes to experiment with the pieces and create designs with them. Allow him to flip the pieces over as needed to make them fit together.



See the Week 24 **Teaching Math with Confidence** for how these puzzle pieces help your child develop spatial skills.

What do we call polygons with 3 sides? *Triangles*. **What do we call polygons with 4 sides?** *Quadrilaterals*. Have your child sort the mosaic puzzle pieces based on whether they are triangles or quadrilaterals.



Discuss the triangles with the following questions:

- **What do the triangles have in common?** *They all have 3 sides and 3 angles.*
- **How are the triangles different from each other?** *Sample answers: G looks more squished than the others. A and C have corners like a piece of paper, but G and F don't. F has all equal sides.*
- **Which triangle has all equal sides?** *F.*
- **Which triangle has two equal sides?** *G.*
- **Which two triangles are congruent to each other and have the same shape and size?** *A and C.* Place A on top of C to show that the triangles are congruent to each other.

Discuss the quadrilaterals with the following questions.

- **What do all these quadrilaterals have in common?** *They all have 4 sides and 4 angles.*
- **How are these quadrilaterals different from each other?** *Sample answers: D is a rectangle, but B and E aren't. B looks very pointy! E is a trapezoid.*

Activity: Review Right Angles

In first grade, you learned that a right angle is an angle that looks like the corner on a piece of paper. Which of the triangle puzzle pieces have a right angle? *A and C.* Tear off the corner of a piece of paper. Place the corner inside the right angle on each puzzle piece to demonstrate.



Which of the quadrilateral puzzle pieces has a right angle? *D.* How many right angles does puzzle piece D have? *4.* Place the corner inside each angle to demonstrate. **Rectangles and squares must always have 4 right angles.**



Activity: Develop Spatial Skills with a Shape Puzzle

Some of the puzzle pieces can be put together to cover other pieces. Place A and C on top of D to demonstrate.



Which two pieces can you use to cover C? *F and G.*



Which two pieces can you use to cover B? *F and A.*



Which two pieces can you use to cover E? *A and G, or C and G.*



Which 3 pieces can you use to cover D? *C, F, and G, or A, F, and G.*



Workbook: Practice Spatial Skills and Review

Have your child complete workbook pages 24.2A and 24.2B.

If your child struggles to draw lines to show where he put each piece, have him show you how he completed the outlines instead.

Lesson 25.5

Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 3s and 4s Review memory work Review your child's favorite or most challenging activities from Week 25 	<ul style="list-style-type: none"> Varies, depending on the activities you choose
Picture Book	<ul style="list-style-type: none"> Understand fractions in many real-life contexts 	<ul style="list-style-type: none"> <i>If You Were a Fraction</i>, written by Trisha Speed Shaskan and illustrated by Francesca Carabelli
Enrichment Activity	<ul style="list-style-type: none"> Use measuring cups with fractions to measure ingredients 	<ul style="list-style-type: none"> Measuring cups (1/4-cup, 1/3-cup, 1/2-cup, and 1-cup) Trail mix ingredients

Warm-up: Counting, Memory Work, and Review

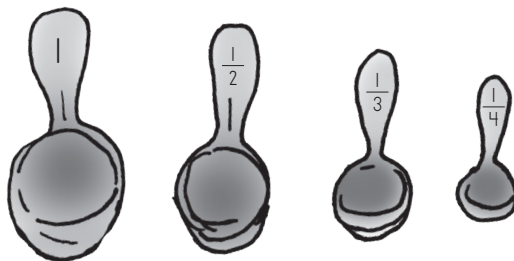
- Have your child count by 3s to 30 and by 4s to 40.
- Quiz your child on the memory work through Week 24. See page 523 for the full list.
- If you have time, repeat one or two of the activities from this week's lessons. Choose activities your child especially enjoyed or found challenging.

Math Picture Book: *If You Were a Fraction*

Read *If You Were a Fraction*, written by Trisha Speed Shaskan and illustrated by Francesca Carabelli. As you read, point out the written fractions and discuss how the fractions match the illustrations.

Enrichment Activity: Make Fraction Trail Mix

Show your child a set of measuring cups. Have him read the fraction printed on each cup.



How many halves make 1 whole? 2. So, 2 half-cups equal 1 whole cup. Have your child pour 2 half-cups of water into the 1 cup measure to check that this is true. Repeat with 3 third-cups and 4 fourth-cups.



Then, help your child use the measuring cups to make the following trail mix recipe. For $\frac{2}{3}$ and $\frac{3}{4}$, encourage her to think about how to use the $\frac{1}{3}$ cup and $\frac{1}{4}$ cup to measure out the correct amounts. For example: **The recipe says that we need two-thirds of a cup of small crackers, but we don't have a $\frac{2}{3}$ cup measure. How could we use the $\frac{1}{3}$ cup to help? We can use the $\frac{1}{3}$ cup twice!**

Fraction Trail Mix Recipe

Mix together in a large bowl:

- $\frac{1}{4}$ cup of something sweet, like chocolate chips or mini marshmallows
- $\frac{1}{3}$ cup of dried fruit
- $\frac{1}{2}$ cup of nuts
- $\frac{2}{3}$ cup of small crackers
- $\frac{3}{4}$ cup of small pretzels
- 1 cup of cereal pieces

Feel free to modify the recipe to match the ingredients you have on hand.

Lesson 31.4

Three-Digit Subtraction Word Problems

	Purpose	Materials
Warm-up	<ul style="list-style-type: none"> Count by 2s Practice memory work Review comparing fractions 	<ul style="list-style-type: none"> Fraction Bars (Blackline Master 9), cut apart and labeled Fraction Cards (from Lesson 25.2 and 25.3)
Activities	<ul style="list-style-type: none"> Solve subtraction word problems Correctly line up the digits in vertical subtraction problems 	<ul style="list-style-type: none"> Workbook page 31.4A Play money, optional
Workbook	<ul style="list-style-type: none"> Review previously-learned material 	<ul style="list-style-type: none"> Workbook page 31.4B

Warm-up: Counting, Memory Work, and Review

- Have your child count by 2s from the following numbers. Prompt him as needed, and stop him after he reaches the last number listed.
 - Count by 2s from 718: 718, 720, 722, 724, 726.
 - Count by 2s from 496: 496, 498, 500, 502, 504.
 - Count by 2s from 992: 992, 994, 996, 998, 1000.
- How many centimeters equal 1 meter? 100.
- Play Fraction War. See Lesson 25.4 (page 409) for directions.

Activity: Solve Three-Digit Subtraction Word Problems

This week, you have learned how to subtract three-digit numbers with the subtraction algorithm. Today, you'll use the subtraction algorithm to solve word problems.

Show your child the chart at the top of workbook page 31.4A. Briefly discuss what your child would want to buy if he were designing his own playset. **We'll use the prices in the chart to solve the word problems.**



Read aloud the first word problem: **How much more does a spiral slide cost than a regular slide?** Have your child find the cost of each type of slide, write the prices in the blank grid, and subtract to find the difference. Model the problem with play money if your child has trouble.

	5	17	
	4	6	7
+	2	5	8
	2	0	9

Repeat with the rest of the word problems on the page. For the second problem, remind your child to align the digits according to their place value. **Make sure you line up the numbers so that the ones-place for 235 is right above the ones-place for 73. That way, you'll be sure to subtract the ones from the ones and the tens from the tens.**

How much more does a tire swing cost than a regular swing?

	1	13	
	2	3	5
+		7	3
	1	6	2

You have \$300. You buy a climbing net. How much money do you have left?

	2	9	10
	3	0	0
-	2	2	6
		7	4

A baby swing costs \$116 less than a tire swing. How much does a baby swing cost?

	2	15	
	2	3	5
-	1	1	6
	1	1	9

Workbook: Review

Have your child complete workbook page 31.4B.

Scope and Sequence

Unit	Objectives
Unit 1 Review	<ul style="list-style-type: none"> • Solve addition and subtraction facts with numbers to 10 • Write addition and subtraction fact families • Use the $<$, $>$, and $=$ signs to compare numbers • Identify numbers on the number line • Represent numbers to 100 with base-ten blocks and understand their digits' place value • Identify pairs that make 100 (like 99 and 1, or 60 and 40) • Use place value to solve simple mental addition and subtraction problems (like $45 + 3$ or $87 - 20$)
Unit 2 Addition Facts and Word Problems	<ul style="list-style-type: none"> • Solve addition facts up to $10 + 10$ • Write and solve equations to match simple addition and subtraction word problems • Solve word problems that involve finding how many more of an item is needed • Solve word problems with 3 or more addends
Unit 3 Numbers to 200	<ul style="list-style-type: none"> • Use base-ten blocks to double or find half of numbers • Identify even and odd numbers • Use repeated addition to find the number of objects in an array • Read, write, and compare numbers to 200 • Understand place value in numbers to 200 • Write numbers to 200 in expanded form • Solve simple mental addition and subtraction problems with the numbers to 200 • Write money amounts with a dollar sign and decimal point, or with a cents sign • Count combinations of bills and coins (including twenty-dollar bills and quarters)
Unit 4 Subtraction Facts and Word Problems	<ul style="list-style-type: none"> • Solve subtraction facts with numbers to 20 • Solve take-away and take-apart word problems • Use subtraction to compare quantities and ages • Solve word problems involving <i>more</i> or <i>fewer</i>
Unit 5 Graphs	<ul style="list-style-type: none"> • Create bar graphs, pictographs, and line graphs • Interpret bar graphs, pictographs, and line graphs with increments of 1 or 10 • Use addition and subtraction to draw conclusions from graphs
Unit 6 Mental Addition to 100	<ul style="list-style-type: none"> • Mentally add one- or two-digit numbers to two-digit numbers (with sums less than 100)

Unit	Objectives
Unit 7 Time	<ul style="list-style-type: none">• Identify times of day as a.m. and p.m.• Be familiar with half hours and quarter hours• Identify the hour and tell time to the minute on clocks with hands
Unit 8 Mental Subtraction to 100	<ul style="list-style-type: none">• Mentally subtract one- or two-digit numbers from two-digit numbers
Unit 9 Length	<ul style="list-style-type: none">• Approximate the length of an inch, foot, yard, centimeter, and meter• Estimate and measure length in inches, feet, yards, centimeters, and meters• Measure an object's length when the object is not aligned with the ruler's endpoint• Choose appropriate units for measuring in real-life situations
Unit 10 Written Addition to 200	<ul style="list-style-type: none">• Understand the steps in the written addition process and model them with base-ten blocks• Fluently add two-digit numbers, with a sum up to 200
Unit 11 Geometry and Fractions	<ul style="list-style-type: none">• Name, describe, and draw polygons with different numbers of sides (triangles, quadrilaterals, pentagons, hexagons, and octagons)• Name three-dimensional solids (spheres, cones, cubes, cylinders, and rectangular prisms)• Reason about polygons and use spatial skills to complete puzzles• Split shapes into halves, thirds, fourths, sixths, and eighths, and read and write fractions to describe fractional parts• Use hands-on materials to compare fractions
Unit 12 Written Subtraction to 200	<ul style="list-style-type: none">• Understand the steps in the written subtraction algorithm and model them with base-ten blocks• Fluently subtract two-digit numbers from numbers up to 200
Unit 13 Numbers to 1000	<ul style="list-style-type: none">• Read, write, and compare numbers to 1000• Write numbers to 1000 in expanded form• Identify even and odd numbers to 1000• Count by 1s, 2s, 5s, or 10s to 1000• Solve simple mental addition and subtraction problems with numbers to 1000• Identify pairs that make 1000• Count money amounts up to \$1000
Unit 14 Addition and Subtraction to 1000	<ul style="list-style-type: none">• Use the addition algorithm to add three-digit numbers• Use the subtraction algorithm to subtract three-digit numbers, including subtracting across a zero

Materials List

What You'll Need in Your Math Kit

You'll use the following materials regularly in *Second Grade Math with Confidence*. Stash them in a box or basket and always keep them ready for your next lesson. (See pages 7-8 in the Introduction for more detailed descriptions of each item.)

- Base-ten blocks (at least 100 units, 20 rods, 10 flats, and 1 large cube)
- 50 small counters
- Coins (20 pennies, 20 nickels, 10 dimes, 8 quarters)
- Play money (10 each of one-dollar bills, five-dollar bills, ten-dollar bills, twenty-dollar bills, and hundred-dollar bills)
- Clock with hands
- 1-foot (or 30-centimeter) ruler, labeled with both inches and centimeters
- Two packs of playing cards and two regular, six-sided dice
- Blank paper
- Pencils
- 3 page protectors
- Dry-erase marker
- Binder with page protectors, optional

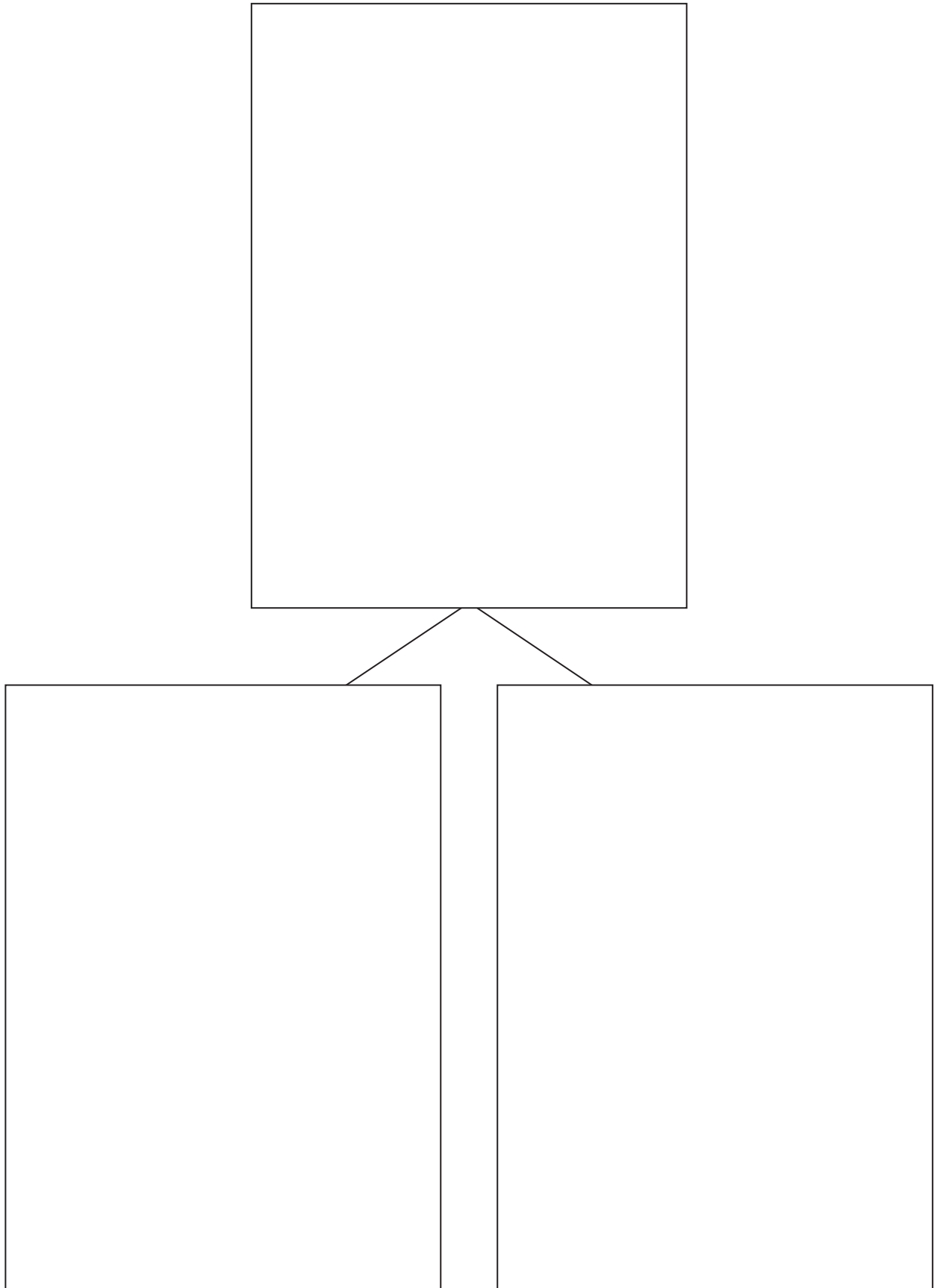
Other Supplies

Besides your Math Kit, you'll also need the following household items. You'll only need most of them once or twice, so you don't need to gather them ahead of time or store them separately. Check the weekly previews for the specific household items you'll need for each week's lessons. Items marked with an asterisk are needed for the optional enrichment lessons (the fifth lesson each week).

- *20 items from your child's favorite collection, such as stuffed animals, marbles, toy cars, ponies, or plastic figurines
- Two toothpicks, narrow strips of paper, or crayons
- Scissors
- Tape
- *Chalk, masking tape, or a long strip of paper
- Napkin
- *Chutes and Ladders, Rack-O, or 100 Chart (Blackline Master 4), die, and counters
- 5-6 small toys
- Mirror (hand mirror preferred, but wall-mounted is fine)
- *20 small snack items, such as raisins, pieces of cereal, or blueberries
- 6 forks
- Construction paper or cardstock
- Crayons or colored pencils
- 25 square or rectangular blocks, any size or material

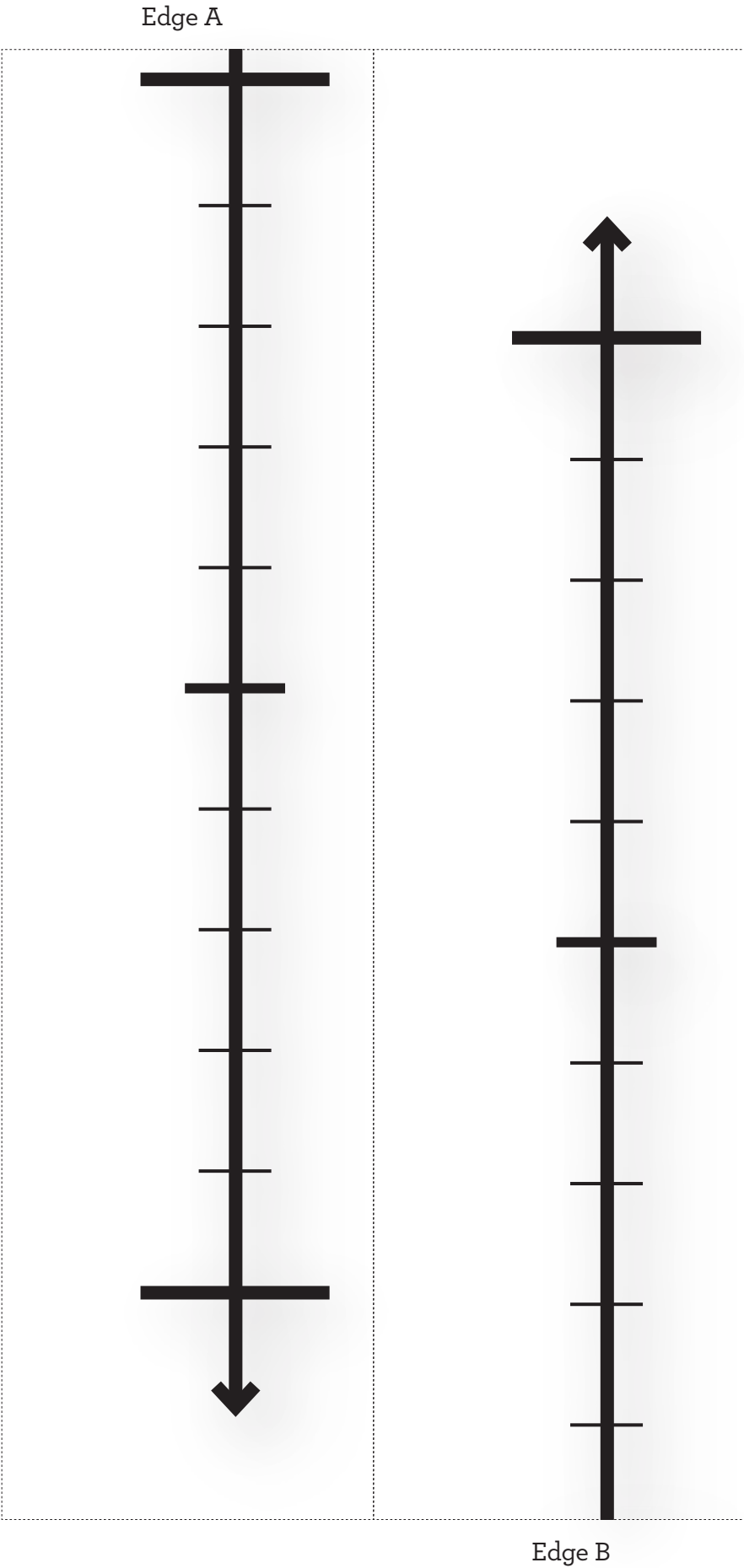
- Rubber band
- *100-200 small food items (such as popcorn kernels, grains of rice, or sunflower seeds)
- *Bills and coins to spend
- *Art supplies, such as construction paper, paint, markers, crayons, or colored pencils
- Cup
- *Graph of your town's average monthly rainfall, either printed or online
- Paper clip
- *Large piece of posterboard (or 9 sheets of paper and tape)
- *Two beanbags, crumpled wads of paper, or soft, unbreakable toys
- Timer
- *Online or streaming video with child-appropriate content, any length
- *Calculator (or calculator app)
- *Map of your local area (or map app)
- 6 narrow paper strips, about 11 inches long and ½-inch wide (or 28 cm long and 1 centimeter wide)
- Stapler
- *1-cup measuring cup or 1-liter measuring cup
- *Ingredients for your choice of recipe involving cups or liters. (See Lesson 21.5 (page 345) for sample recipes.)
- *Egg carton
- 8 toothpicks, popsicle sticks, straws, or other long, narrow objects
- Household items in the shape of a sphere, cone, cylinder, cube, and rectangular prism.
Suggested items:
 - × Sphere: basketball, baseball, globe
 - × Cone: party hat, sports cone, ice cream cone
 - × Cylinder: can, oatmeal canister, toy drum
 - × Cube: Rubik's cube, dice, sugar cube
 - × Rectangular prism: cereal box, shipping box, stick of butter
- Empty cardboard box
- *Several sheets of construction paper, origami paper, or copy paper
- *Glue, optional
- *Large sheets of paper, optional
- *Children's book with more than 100 pages and fewer than 200 pages
- *Toy catalog or access to a website with items your child would like to buy
- Book with over 1000 pages
- *Felt-tip marker or bingo dotter, optional
- *Posterboard or construction paper, optional
- 4 children's chapter books, each with 100-250 pages
- *3 books with 500-1000 pages

Part-Total Mat (Blackline Master 2)



Blank Number Line (Blackline Master 3)

Directions: Cut on the dotted line. Then, tape Edge A to Edge B. Try to line up the two edges without overlapping the paper, and place a piece of transparent tape on both the front and back of the joined edges. This will make it easier to fold the number line for storage. You may want to laminate the number line or cover it with packing tape so that you can label it with a dry erase marker.



100 Chart (Blackline Master 4)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

Place-Value Chart (Blackline Master 5)

tens	ones

	thousands
	hundreds

Directions: Cut on the dotted line. You will be left with a gray L.

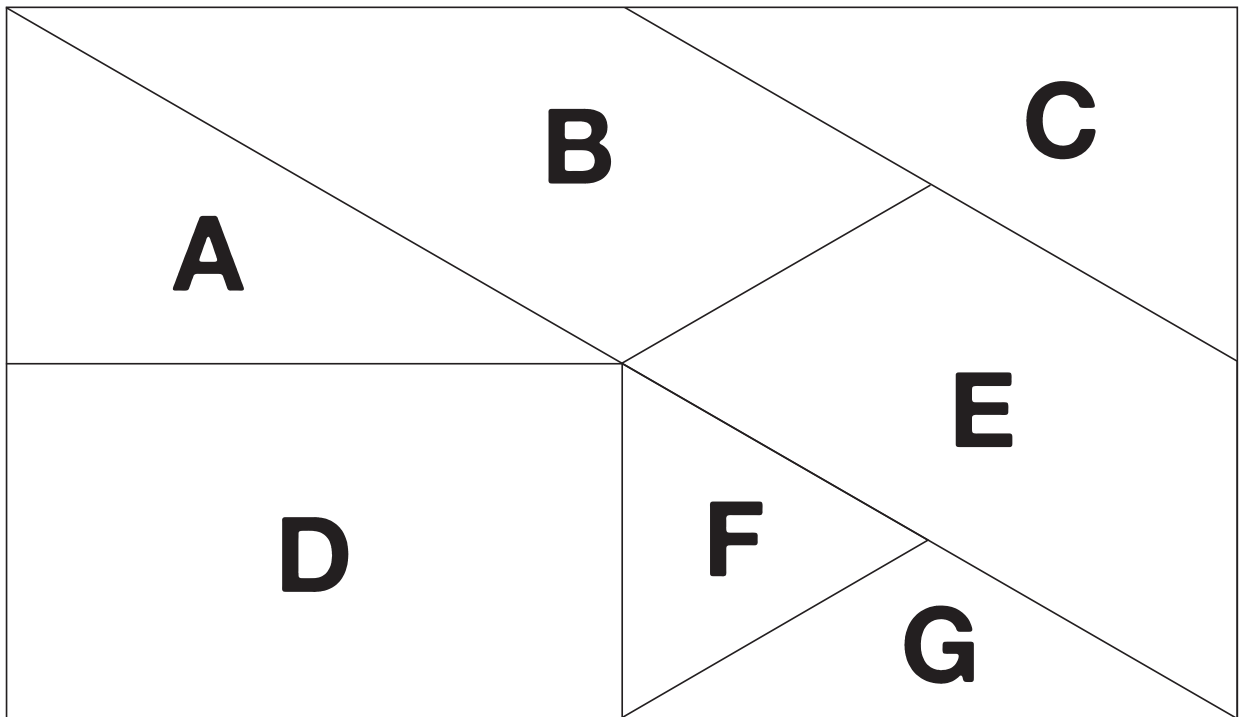


200 Chart (Blackline Master 7)

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

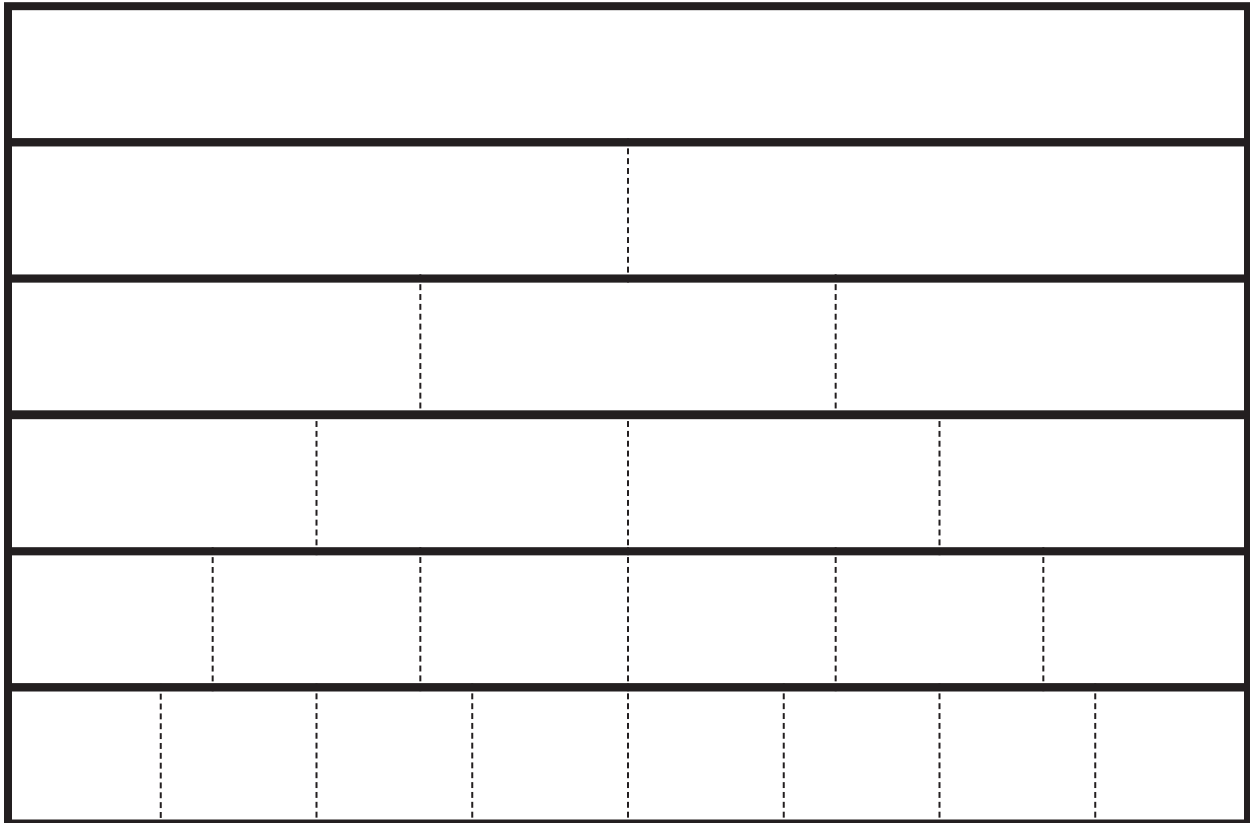
Mosaic Puzzle Pieces (Blackline Master 8)

Directions: Cut out the pieces carefully so that they will fit together properly. If possible, copy this blackline master onto cardstock before cutting to make the pieces sturdier. Don't laminate them, as plastic coating will make them slide around too much.



Fraction Bars (Blackline Master 9)

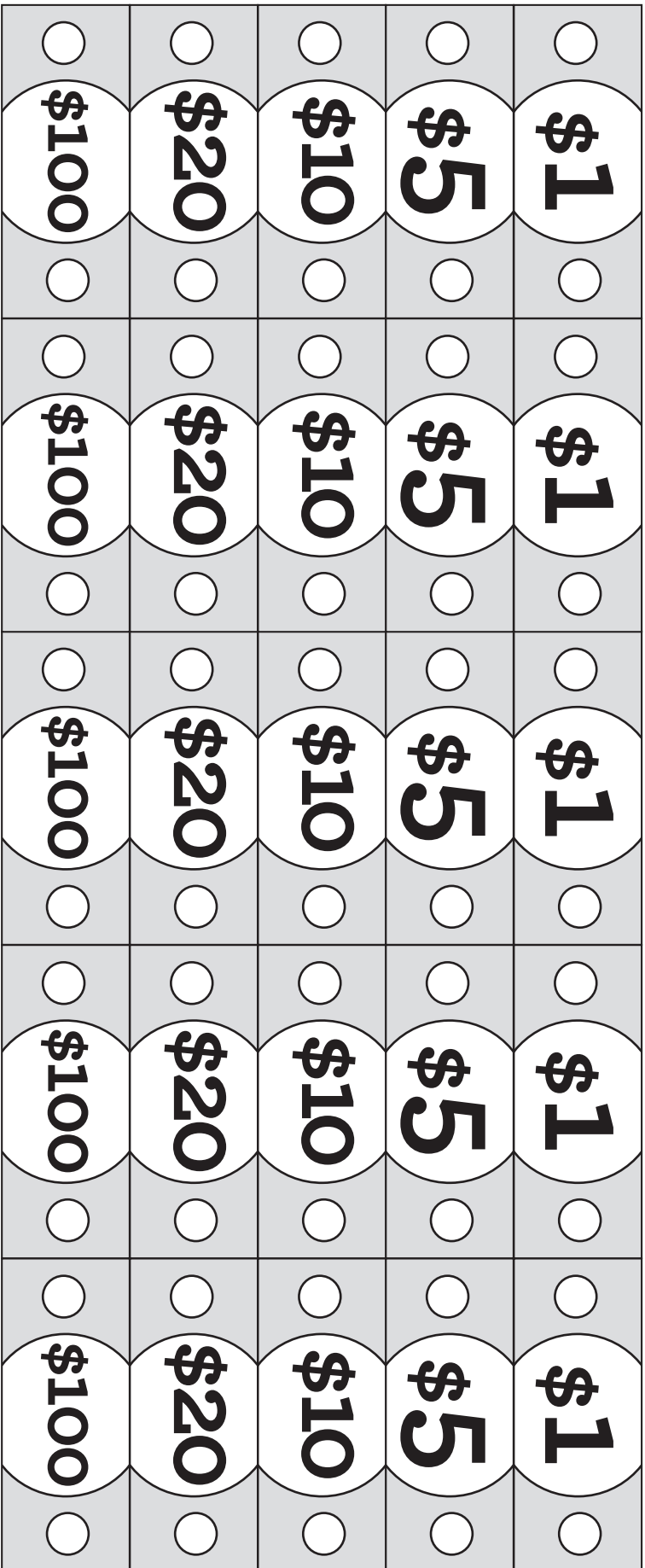
Directions: Copy this page on sturdy paper and cut out the bars on the solid lines.
(Your child will cut the dotted lines during Week 25).



Play Paper Bills for Families Outside the US (Blackline Master 10)

You do not need these if you have other play money, either from a toy cash register or board game.

Directions: Make 2 copies of this page on sturdy paper and cut out the paper bills.



Base-Ten Blocks (Blackline Master 11)

You do not need these if you have real base-ten blocks.

Directions: Make 5 copies of this page on sturdy paper. Cut out the blocks on the dark lines.

