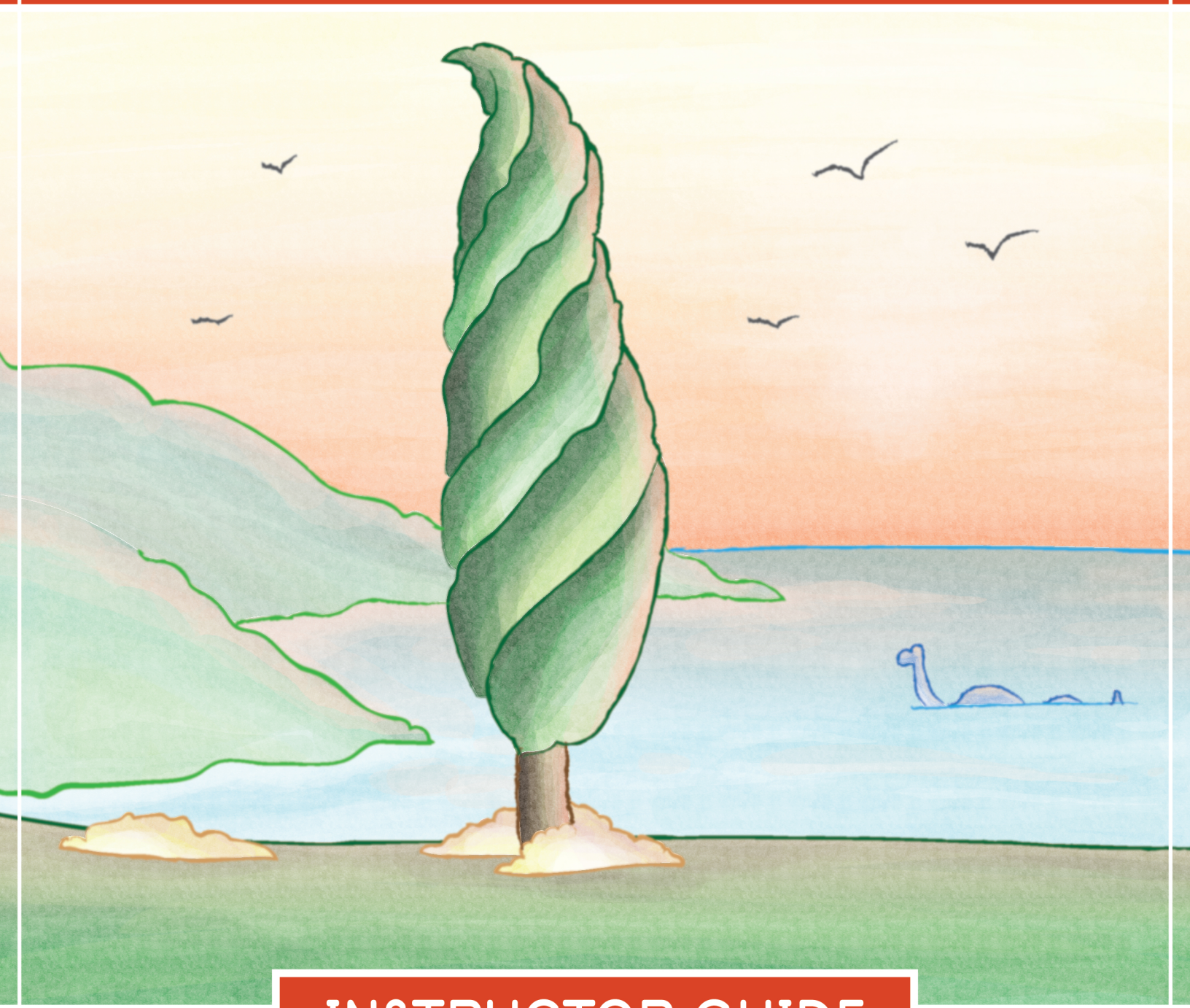
FIRST GRADE MATH WITH CONFIDENCE



INSTRUCTOR GUIDE

KATE SNOW

Unit 1
Numbers to 10

Overview

In Unit 1, your child will firm up her knowledge of the numbers to 10. She'll practice reading, writing, and comparing numbers to 10. She'll also learn how to recognize the numbers 6 to 10 as combinations of "5 and some more" and how to split and join small quantities. With these skills in place, she'll be ready to start learning the addition facts in Unit 2.

Your child will also review several basic kindergarten skills: counting to 20 by 1s and 2s, composing shapes, continuing patterns, and identifying left and right.

Week 1	Review
Week 2	Combinations of "5 and Some More"
Week 3	Split and Join Numbers to 10

What Your Child Will Learn

In this unit your child will learn to:

- Read, write, and compare numbers to 10
- Represent the numbers from 0 to 10 with counters on the ten-frame, tallies, coins, and paper bills
- Recognize the numbers from 6 to 10 as combinations of "5 and some more"
- Split quantities into parts (for example, split a group of 5 into 2 and 3)
- Join parts to find a total (for example, join 4 and 3 to make 7)

Recommended Math Picture Books (Optional)

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

- *Missing Math: A Number Mystery,* by Loreen Leedy. Two Lions, 2008.
- *Two Ways to Count to 10: A Liberian Folktale*, retold by Ruby Dee and illustrated by Susan Meddaugh. Square Fish, 1990.
- *Anno's Counting Book,* by Mitsumasa Anno. Crowell, 1977.

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 1
Review

Overview

Your child will review reading, writing, and comparing numbers to 10. She'll also review several basic kindergarten skills: counting to 20 by 1s and 2s, composing shapes, continuing patterns, and identifying left and right.

Lesson 1.1	Review Numbers to 10
Lesson 1.2	Review Comparing Numbers to 10
Lesson 1.3	Review Counting
Lesson 1.4	Review Shapes and Patterns
Lesson 1.5	Enrichment and Review (Optional)

Teaching Math with Confidence: What's Number Sense?

One of the most important goals of elementary math education is for children to develop number sense: deep knowledge of numbers and the relationships between numbers.

For example, before you read on, think about the number 16 for a moment. What can you say about it? How is it related to other numbers?

Here are just a few ways to think of the number 16:

- It is between 15 and 17 in the counting sequence.
- It is even.
- It is 4 less than 20.
- It equals 1 ten and 6 ones.
- It equals 8 + 8, 10 + 6, or 9 + 7.
- It equals 2 × 8.
- Half of 16 is 8.
- It is a square number, because it equals 4 × 4.
- It is half of 32.

Don't worry—your child doesn't need to know all this by the end of first grade! But this is a sample of the deep number sense you'll help your child build during her elementary years, so that she has an in-depth understanding of numbers and can use them fluently.

Extra Materials Needed for Week 1

- Small ball or beanbag
- For optional Enrichment and Review Lesson:
  - *Missing Math: A Number Mystery*, by Loreen Leedy
  - Construction paper or posterboard

You also need items from your Math Kit this week. If you haven't yet made your Math Kit, see page 8 for instructions on how to assemble it.

You can find most of the materials for the Math Kit around the house, but you will need to purchase a set of pattern blocks if you don't already own one. You can usually find a set of 100 blocks for about $10 at school supply stores or online.

Real blocks--either plastic, wood, or foam--are best. If you don't have access to real blocks, use Blackline Master 10 to create paper pattern blocks instead.

Lesson 1.1
Review Numbers to 10

	Purpose	Materials
Warm-up	• Count to 10	• None
Activities	• Set a positive tone for the year and preview what your child will learn • Review reading and sequencing numbers to 10	• Math Kit, assembled according to the directions on page 8 • Index cards
Workbook	• Put the numbers from 1 to 10 in order • Practice tracing the numbers from 1 to 10	• Workbook pages 1.1A and 1.1B

The Week 1 lessons assume that your child already knows these skills and simply needs a quick review. If your child already knows these skills well, skim through the lessons quickly (or even skip them altogether). If your child has never learned a particular skill, spend some extra time practicing it, and review it regularly until she has it mastered. You know your child best, so always feel free to adjust the amount of practice and review based on what your child needs.

Warm-up: Counting

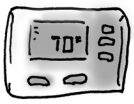
- **Each day, we'll begin with a warm-up. Count from 1 to 20.** *1, 2, 3, ...*

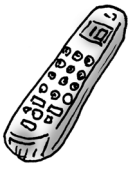
Activity: Number Scavenger Hunt

Today, you'll begin your new math book. Let's take a look at your workbook and see what you'll learn this year. Briefly page through the workbook with your child. **What are you most excited to learn about in math this year?** *Answers will vary.*

Math is the study of numbers, shapes, measurement, and patterns. We use math all the time in everyday life: in cooking, at the store, at home, everywhere!

I wonder how many different places you can find numbers in our house. Walk around your home and have your child look for numbers.





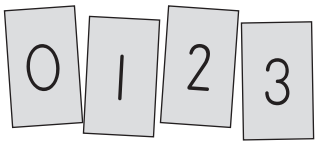
Activity: Introduce the Math Kit

We'll use the Math Kit to help you learn and understand math. Show your child your Math Kit and talk about the items in it. For example: **We'll use pattern blocks to build patterns and shapes. You'll learn more about telling time and counting coins this year.**

If you haven't gathered the supplies for your Math Kit yet, work with your child now to collect the necessary materials. See page 8 for the full list.

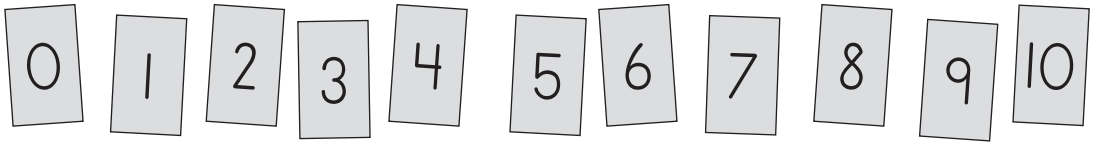
Activity: Make Number Cards

We need to make Number Cards for our Math Kit. We'll use the cards for activities and games. Write the numbers from 0 to 10 on index cards. Have your child trace each number with her finger to review the order of strokes for writing the numbers.



You'll sometimes use these cards face-down for games like Memory, so make sure you use a writing utensil that does not show through the backs of the cards.

Mix up the Number Cards and have your child put them in order from 0 to 10.



Save the Number Cards for future lessons and add them to your Math Kit.

Workbook: Put Numbers in Order and Review

After we do some math activities together, you'll practice what you've learned on paper. Look at workbook pages 1.1A and 1.1B with your child and make sure she understands what to do in each section. Then, have your child complete the pages.

As your child traces the numbers on 1.1A, check that she starts each number at the starting dot and follows the correct sequence of strokes (indicated by the arrows).

Your child will complete 2 workbook pages at the end of every lesson (except for the optional Enrichment and Review lesson at the end of each week). Side A generally provides practice with the new skill or concept from the lesson, while Side B provides review.

First-graders often need help understanding directions and staying focused, so make sure you keep an eye on your child as she works. If you find the worksheets are too demanding for your child's fine-motor skills, either scribe her answers or have her complete the worksheets orally.

Lesson 1.2
Review Comparing Numbers to 10

	Purpose	Materials
Warm-up	• Count to 20	• Small ball or beanbag
Activities	• Write numbers 1-10 • Review using *greater than*, *less than*, and *equal* to compare numbers	• Number Cards • Index cards • Counters
Workbook	• Compare groups of objects and written numerals • Practice tracing the numbers 1 to 10	• Workbook pages 1.2A and 1.2B

Warm-up: Counting

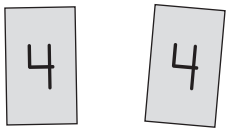
- Count to 20 with your child. Toss a small ball or beanbag back and forth as you count, and take turns saying the numbers: *1, 2, 3, 4...*

> Taking turns saying the numbers previews the even and odd numbers. It also prepares your child to count by 2s.

> Exercise helps wiggly first graders focus and prepare to learn, so you'll often find movement suggestions for the warm-up activities. If your child gets distracted by these activities or doesn't enjoy them, simply have your child do the activities without extra movement.

Activity: Write Numbers 0-10

Shuffle Number Cards (0-10) and turn one card face-up. Have your child name the number and copy the number onto a separate index card.



Repeat with the rest of the Number Cards. You will use these cards in the next activity.

> If this is too much writing for your child, you can make some or all of the cards yourself. Then, have your child trace each number with his finger so he practices the correct order of the strokes.

Save these Number Cards for future lessons.

Activity: Review Greater Than, Less Than, and Equal

Today, we'll review comparing numbers. Let's pretend we each have a handful of cookies. Place two small handfuls of counters (with 6-10 counters in each handful) on the table. **Who do you think has more? Why?** *Sample answer: I think I have more because my pile looks bigger.*

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.

Have your child count how many cookies are in each pile. Place the corresponding Number Card next to each pile.

Who has more cookies? How do you know? *Sample answer: I do, because 8 is more than 7.*

Who has fewer cookies? How do you know? *Sample answer: I do, because 7 is less than 8.*

If your child has trouble identifying which number is greater, have him line up the counters in two equally-spaced lines to check.

When we compare piles of cookies, we use the words *more* and *fewer*. But when we talk about plain numbers, we use the words *greater than* and *less than*. So, we say 8 is *greater than* 7, and 7 is *less than* 8.

Place two piles with 6 counters each on the table. Have your child count how many cookies are in each pile and place the corresponding Number Card next to each pile.

Who has more cookies? *Sample answer: We both have the same number!* **We both have an equal number of cookies. We say 6 is *equal to* 6.**

Show your child the following pairs of Number Cards. Have him compare the numbers using the terms *greater than*, *less than*, or *equal to*.

- *2 and 0. 0 is less than 2. 2 is greater than 0.*
- *5 and 5. 5 is equal to 5. Or, 5 and 5 are equal.*
- *10 and 7. 7 is less than 10. 10 is greater than 7.*
- *4 and 9. 4 is less than 9. 9 is greater than 4.*

Activity: Play War Card Game

Play War (0-10). As you play, describe the cards with *greater than*, *less than*, or *equal to*. Encourage your child to use these words, too.

If your child is ever unsure which number is greater, have him represent both numbers with counters and line up the counters to check.

War (0-10)

Materials: 2 sets of Number Cards (0-10)

Object of the Game: Win the most cards.

Shuffle the Number Cards and deal the cards face down in two piles. Both players flip over the top card in their pile. Whoever has the greater number wins both cards.

If the cards are equal, leave them face-up on the table and have both players flip over another card. Whoever has the greater card wins all the face-up cards.

Play until you have used up all the cards in the piles. Whoever has won more cards wins the game.

Variation: If you have time for a longer game, continue playing until one player has won all the cards.

Workbook: Compare Numbers and Review

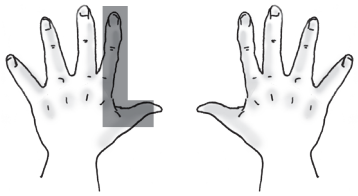
Have your child complete workbook pages 1.2A and 1.2B.

Lesson 1.3
Review Counting

	Purpose	Materials
Warm-up	• Count to 20 • Review left and right	• Small ball or beanbag
Activities	• Review counting objects by 1s or by 2s • Identify numbers on the 100 Chart • Review using *greater than* and *less than* to compare numbers	• Counters • 100 Chart (Blackline Master 3)
Workbook	• Compare numbers	• Workbook pages 1.3A and 1.3B

Warm-up: Counting and Review

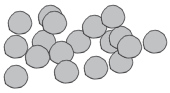
- Count to 20 with your child. Toss a small ball or beanbag back and forth as you count, and take turns saying the numbers: **1,** *2,* **3,** *4...*
- Show your child her right and left hands. **Here's a trick to remember which hand is right and which is left. Left starts with L. Your left hand makes a capital L when you put it flat on the table.**



If your child is right-handed, point out your child writes with her right hand.

Activity: Review Counting by 1s and 2s

We'll review counting today. Secretly count out 18 counters and place them on the table. **How many counters do you think there are?** *Answers will vary.*

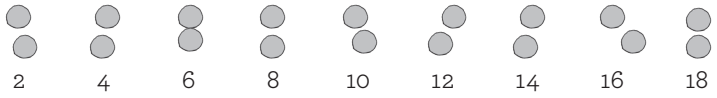


Estimating first makes counting activities more interesting and fun. Don't worry if your child's guess is far from the actual number. Her estimates will become more accurate as she gains experience with estimation and counting.

Have your child count the pile. Encourage her to move each counter to a new pile as she counts. Make sure she says only one number word for each counter and slow her down as needed. **How many counters are there?** *18.*

Moving the counters from one pile to the other helps slow your child down so that she says only one number per counter.

We can also count by 2s. Demonstrate how to count the pile by 2s: **2, 4, 6...**



Your child will have many more opportunities to practice counting by 1s and 2s in future lessons.

Activity: Review the 100 Chart

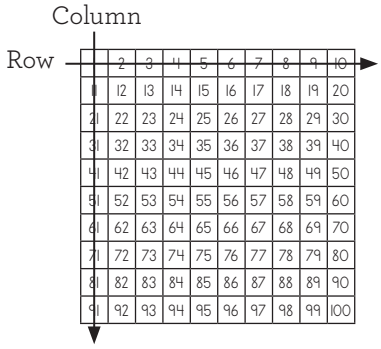
How high do you think you can count? *Answers will vary.* Have your child count as high as she can. Stop her if she reaches 120. **You'll learn how to count to 150 by 1s, 2s, 5s, and 10s this year.**

Show your child the 100 Chart (Blackline Master 3). **This chart is called a 100 Chart. It shows all of the numbers from 1 to 100.**

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

The numbers on the 100 Chart are arranged in rows and columns. The lines that go across the page are called rows. Slide your finger across the rows of the 100 Chart from left to right.

The lines that go up and down the page are called columns. Slide your finger down the columns of the 100 Chart from top to bottom.

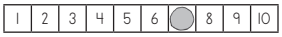


What are some patterns you notice? *Answers will vary.* Spend a few minutes looking for patterns on the 100 Chart. For example, your child might notice that all the numbers in the rightmost column contain a 0, or that all the numbers in a given column have the same number in the ones-place.

It's fine if your child doesn't notice many patterns on the 100 Chart yet. Asking her to look for patterns in this lesson primes her to expect patterns and keep her eyes open for them in future lessons.

We'll use the top row of the 100 Chart today. Cover the bottom 9 rows of the 100 Chart so only the top row is showing.

With your child looking away, secretly cover the number 7 with a small counter. **Can you guess which number I covered?** *7.* **How did you figure out which number I covered?** *Sample answer: I know 7 comes after 6.* If your child isn't sure, have her count forward from 1 and point to each number as he says it.



Repeat with several other numbers from 1 to 10.

Activity: Play Guess the Secret Number (1-10)

Play Guess the Secret Number (1-10) several times. Once your child understands the game, reverse roles and have your child choose the secret number.

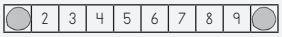
Guess the Secret Number (1-10)

Materials: 100 Chart (Blackline Master 3), counters

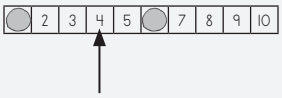
Object of the Game: Guess the secret number.

Secretly choose a number between 1 and 10, and write it on a slip of paper.

Place a counter on the 1 and the 10 on the 100 Chart. **My secret number is greater than 1 and less than 10.**



The other player guesses the secret number. If the guess is incorrect, move one counter to the number she guesses, so the secret number is still between the two counters. For example, if the secret number is 4, and your child guesses 6, move the counter from the 10 to the 6 and say: **My secret number is less than 6.**



Example of how to move the counter if the secret number is 4 and your child guesses 6. Make sure your secret number is always between the two counters.

Have your child continue guessing. Keep moving the counters so your secret number is between the two counters. Once your child guesses correctly, reveal your written number.

You will continue to play this game throughout the year with larger numbers.

Workbook: Compare Numbers and Review

Have your child complete workbook pages 1.3A and 1.3B.

Workbook page 1.3B directs your child to color the left and right sides of the shapes. 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 1.4
Review Shapes and Patterns

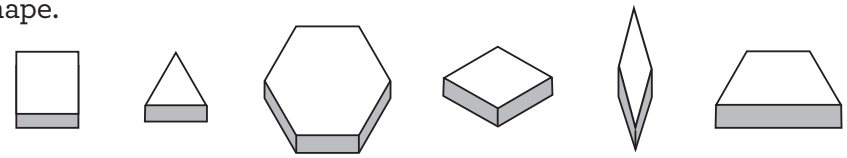
	Purpose	Materials
Warm-up	• Count out a given number of objects • Review *left* and *right*	• Counters
Activities	• Explore pattern blocks • Review patterns • Review ordinal numbers	• Pattern blocks
Workbook	• Continue patterns	• Workbook pages 1.4A and 1.4B • Pattern blocks

Warm-up: Counting and Review

- Have your child count out 19 counters.
- Play Simon Says. **If I say "Simon says" first, then you should follow my direction. But if I don't say "Simon says," don't follow my direction.** Give your child 8-10 directions like the following:
  - **Simon says jump up and down on your right foot.** *Child jumps up and down on his right foot.*
  - **Simon says wave your left hand.** *Child waves his left hand.*
  - **Stand on one foot.** *Child doesn't do anything.* If your child stands on one foot, remind him he should only follow the direction when you say, "Simon says."

Activity: Explore Pattern Blocks

Today, we'll review shapes and patterns. Show your child the pattern blocks. Tell him the name of each shape.



Square Triangle Hexagon Diamond Narrow Diamond Trapezoid

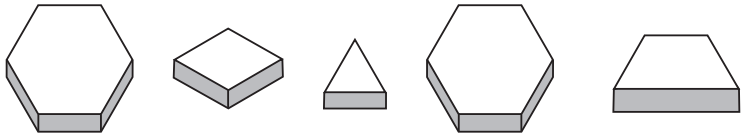
Your child does not need to memorize the names of the pattern blocks.

Give your child time to explore the blocks and make designs. Use the correct names for the blocks as you discuss his creations. For example, **I see you put two trapezoids together to make a hexagon.**

Putting the pattern blocks on top of a piece of felt or a fuzzy towel helps prevent them from sliding and makes it easier to line up the sides of the blocks exactly.

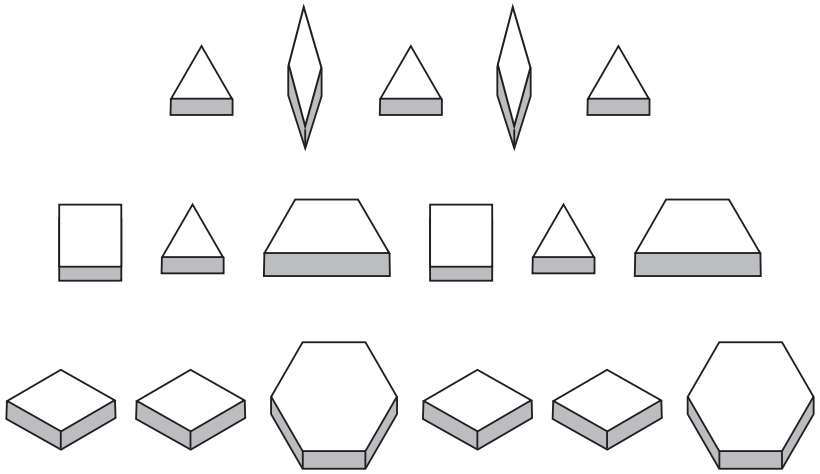
Activity: Review Patterns

We can use the blocks to make patterns, too. Patterns in math must always follow a rule. If I randomly put some blocks in a row, it's not a pattern. Take a handful of about 6 pattern blocks and lay them randomly in a row from left to right.



This row of blocks isn't a pattern. But if I think of a rule in my head and then follow it, I make a pattern.

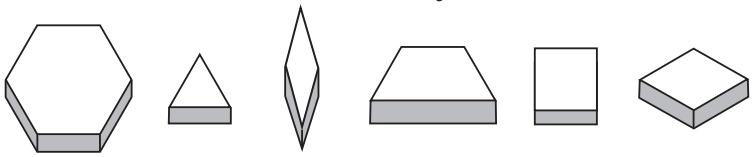
Use pattern blocks to make the following patterns. Have your child add a few blocks to continue each pattern.



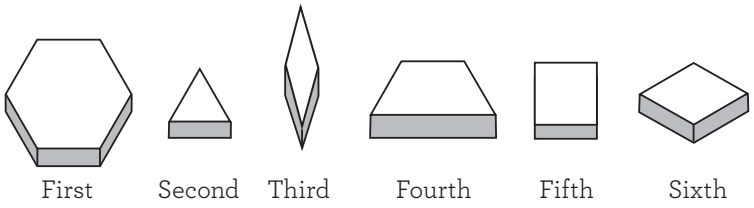
If your child has trouble continuing any of the patterns, have her first point to each element in order and say its name aloud: "triangle, diamond, triangle, diamond..." This allows her to hear the pattern as well as see it.

Activity: Review Ordinal Numbers

Place 6 pattern blocks in a line as shown. **How many blocks are in the line?** *6.*



We use numbers like one, two, and three when we count and tell how many blocks there are. But we use numbers like *first, second,* and *third* to describe the blocks' order.



Point to the hexagon. **This block is first.** Point to the triangle. **This block is second.** Continue with the rest of the blocks.

Rearrange the order of the blocks. **Now which block is first? Second? Third? Fourth? Fifth? Sixth?** *Child points to the corresponding block.*

Numbers like ***first***, ***second***, and ***third*** are called ***ordinal numbers***. We use ordinal numbers to describe how objects or events relate to each other, as opposed to the cardinal numbers (like one, two, three, etc.) which we use to count and tell how many. Your child does not need to know these terms but simply needs to be able to use both kinds of numbers correctly in context. Later this year, he'll learn to use ordinal numbers to identify the date on a calendar.

Workbook: Continue Patterns and Review

Have your child complete workbook pages 1.4A and 1.4B. Your child does not need to write anything on the pattern block outlines at the bottom of page 1.4A.

Lesson 1.5
Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	• Review counting • Review your child's favorite or most challenging activities from Week 1	• Varies, depending on the activities you choose
Picture Book	• Appreciate the many ways numbers are used in daily life	• *Missing Math: A Number Mystery*, by Loreen Leedy
Enrichment Activity	• Make a poster showing important real-life numbers	• Construction paper or poster board

Warm-up: Counting and Review

- Have your child count to 20.
- 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: *Missing Math: A Number Mystery*

Read *Missing Math: A Number Mystery*, by Loreen Leedy. After you read the book, talk about what other problems you might have if there were no numbers.

Enrichment Activity: My Numbers Poster

Help your child make a poster that shows numbers that are important to her, such as her address, phone number, birthday, age, and the number of people in her family. Encourage her to label the numbers with words or pictures and help as needed.

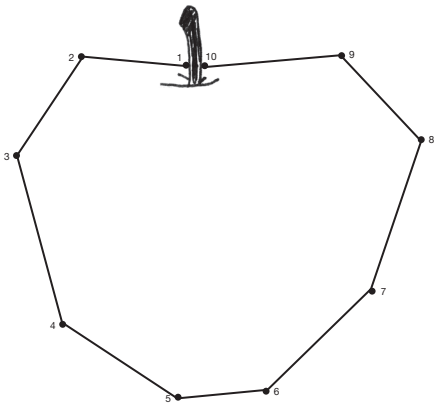
The purpose of these lessons is to help your child enjoy math, develop a positive attitude toward math, and appreciate how math is used in everyday life. Feel free to adapt the enrichment activity directions to fit your family. Simplify them if you're short on time or use different materials if you don't have the exact items listed. On the other hand, if your child is particularly excited about a project, make the project more elaborate and spend more time on it.

Note there are no workbook pages for Enrichment and Review lessons.

Week 1 Answer Key

1.1A

Connect the dots in order.



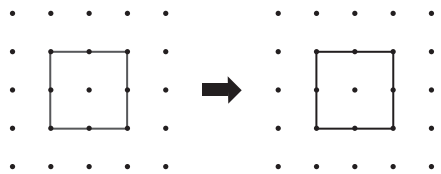
Trace the numbers. Start at the dot.

1 2 3 4 5

6 7 8 9 10

1.1B

Copy the shape.

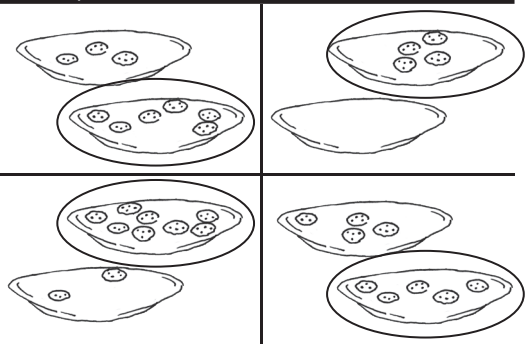


Draw a picture that shows one way you use numbers.

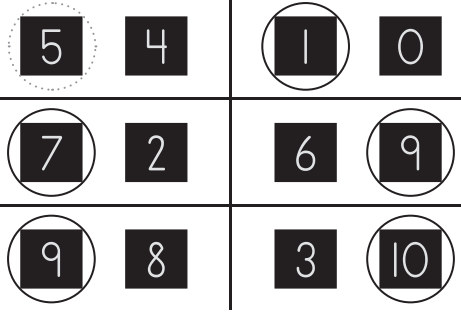
Many answers are possible.

1.2A

Circle the plate with more cookies.



Circle the greater number in each pair.



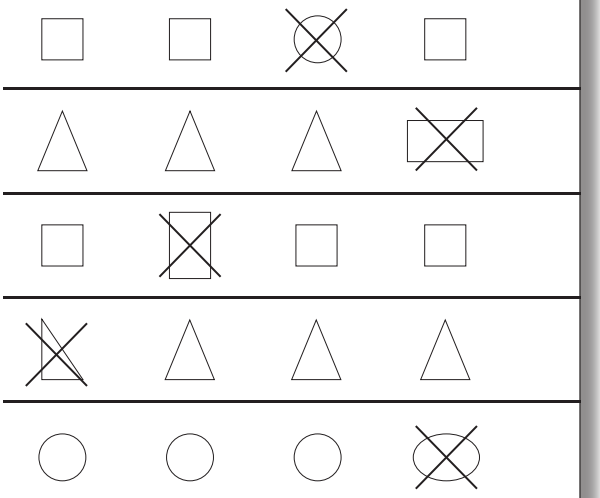
1.2B

Trace the numbers.

1 2 3 4 5

6 7 8 9 10

X the shape that is different from the rest.



Week 1 Answer Key

1.3A

Circle the greater number in each pair.

6 3

5 8

9 8

4 6

9 10

7 0

Trace and copy.

1 1 2 2 3 3 4 4

5 5 6 6 7 7 8 8

9 9 10 10

1.3B

Write the number that comes between each pair of numbers.

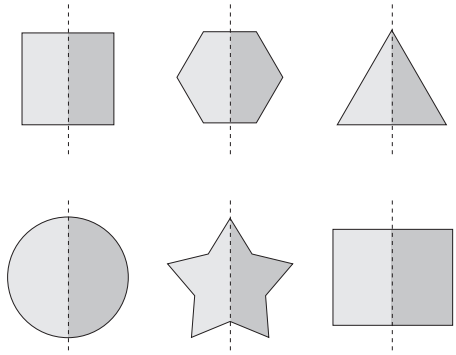
3 4 5

5 6 7

7 8 9

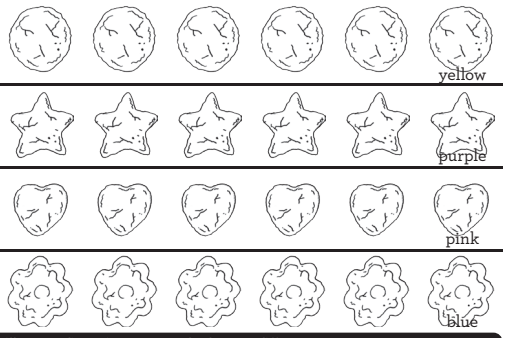
1 2 3

Color the left side of each shape yellow.
Color the right side of each shape red.

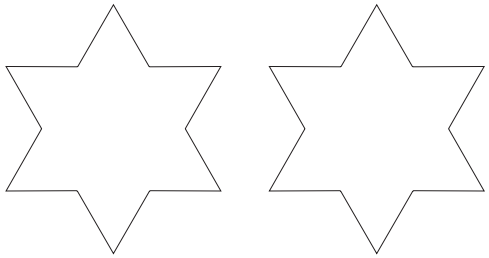


1.4A

Color the cookies to complete the pattern.



Fill the outline with pattern blocks two different ways.
Write how many blocks you use.



____ blocks

____ blocks

Many answers are possible.

1.4B

Trace and copy.

1 1 2 2 3 3 4 4

5 5 6 6 7 7 8 8

9 9 10 10

Circle the greater number in each pair.

9 1

5 2

7 8

0 3

6 10

8 4

Week 2
Combinations of "5 and Some More"

Overview

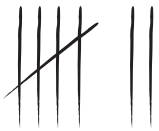
Your child will represent the numbers to 10 with counters on the ten-frame, tallies, coins, and paper bills. She will especially focus on learning to recognize the numbers from 6 to 10 as combinations of "5 and some more."

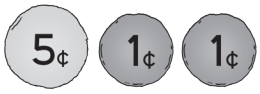
Lesson 2.1	"5 and Some More" on the Ten-Frame
Lesson 2.2	"5 and Some More" with Tallies
Lesson 2.3	"5 and Some More" with Coins
Lesson 2.4	"5 and Some More" with Paper Money
Lesson 2.5	Enrichment and Review (Optional)

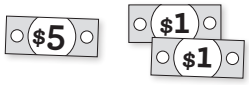
Teaching Math with Confidence: Recognizing Numbers 6-10 as Combinations of "5 and Some More"

In *Kindergarten Math with Confidence*, your child learned how to recognize the numbers from 6 to 10 as combinations of "5 and some more." (For example, 7 equals 5 and 2, or 9 equals 5 and 4.) Five is an important anchor in our number system (because it is half of 10, the base for our place-value system) and so learning these combinations helps prepare your child for addition and subtraction.

This week, you'll use the ten-frame, tallies, coins, and paper money to review these combinations. As you teach the lessons, always encourage your child to look for the combinations of "5 and some more" rather than counting items one by one.







If you did not use *Kindergarten Math with Confidence*, your child may need some extra practice to master these combinations. For now, follow the lessons as written. When you reach the end of the unit, the Unit 1 Checkpoint (page 60) will give you guidance on whether your child needs more practice before you move on to Unit 2.

Extra Materials Needed for Week 2

- Real five-dollar bill and one-dollar bill
- 5 small toys
- For optional Enrichment and Review Lesson:
  - *Two Ways to Count to 10: A Liberian Folktale,* retold by Ruby Dee and illustrated by Susan Meddaugh
  - Chalk, tape, or 10 sheets of paper (for making a hopscotch course)
  - Small beanbag, stone, stick, or other hopscotch marker

Materials Note for Families Living Outside the U.S.

This book frequently uses money to practice counting, place value, and mental math. If you live outside the U.S., either use your country's coins or the generic coins on Blackline Master 11 in place of the American coins. For paper bills, use play money (from a board game or children's cash register toy) or the generic bills on Blackline Master 12.

As you teach lessons with money, simply change the language in the lessons to match whatever currency you use. You won't need to modify the worksheets, since they contain simplified coins and paper money rather than photo-realistic American coins or bills.

Lesson 2.1
"5 and Some More" on the Ten-Frame

	Purpose	Materials
Warm-up	• Estimate and count up to 20 objects • Introduce memory work • Review identifying the numbers before and after a given number	• Counters • Number Cards
Activities	• Learn to think of the numbers from 6 to 10 as combinations of "5 and some more" • Identify quantities on the ten-frame by sight	• Double ten-frames (Blackline Master 1) • Counters • Coin
Workbook	• Recognize quantities on the ten-frame by sight	• Workbook pages 2.1A and 2.1B

If your child is already familiar with ten-frames from *Kindergarten Math with Confidence*, make this a quick review lesson.

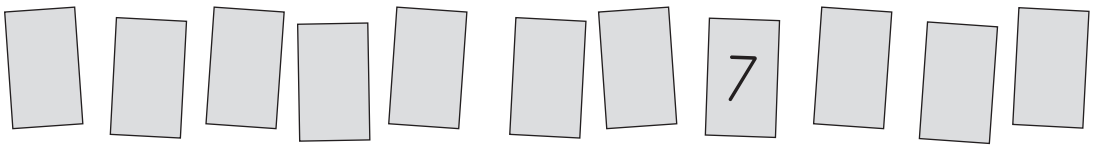
Warm-up: Counting, Memory Work, and Review

- Place about 12-15 counters on the table. **About how many counters do you think there are?** *Answers will vary.* Have your child count to find the actual number of counters, either by 1s or 2s.
- Show your child the Memory Work list on page 499. **You'll memorize these important facts this year. You'll memorize a new fact every two weeks. You'll also review the facts you've already learned.**

  This week, you'll practice left and right. Raise your left hand. Raise your right hand.

  Many children have trouble consistently identifying left and right until they are 7 or 8, so don't worry if your child needs a lot of practice.

- Have your child place the Number Cards in order from 0 to 10. Turn all the cards face-down. Flip over a card in the middle of the line. Have your child identify the numbers that come before and after the number on the card. For example, if you flip over a 7: **What number comes after 7?** *8.* **What number comes before 7?** *6.*



  After your child answers, have her flip over the cards before and after your card to check her answers. Then, flip all the cards face-down again.

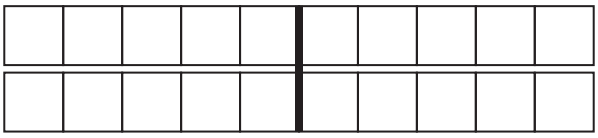
  Repeat with several different cards in the line.

Activity: Introduce Combinations of "5 and Some More"

Last week, you practiced the numbers to 10. This week, you'll learn to think of the numbers from 6 to 10 as combinations of "5 and some more." Thinking of the numbers this way will help you later this year when you learn to add and subtract.

See the Week 2 **Teaching Math with Confidence** for more information on why these combinations are so important.

Show your child the ten-frames on Blackline Master 1. **Can you guess why these grids are called ten-frames?** *Sample answer: Each grid has 10 boxes.*

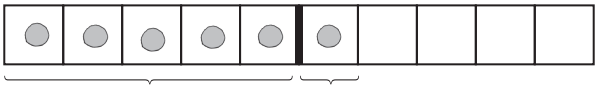


Cover the bottom ten-frame with a piece of paper so only the top one is showing. Place 5 counters on the top ten-frame.

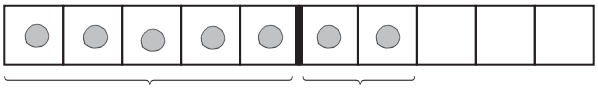
Always fill the ten-frame from left to right, without skipping any boxes.

How many counters are there? *5.* **The dark line splits the ten-frame into two groups of 5. Since the counters fill every box up to the dark line, there must be 5.**

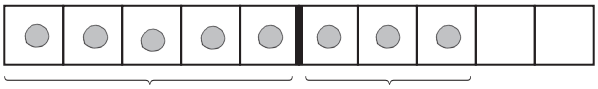
Add 1 counter. **How many counters are there now?** *6.* If your child begins to count one-by-one, point out there is 1 more than 5, so there must be 6. **5 and 1 make 6.**



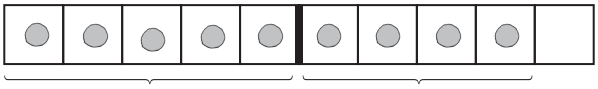
Add 1 counter. **How many counters are there now?** *7.* **5 and 2 make 7.**



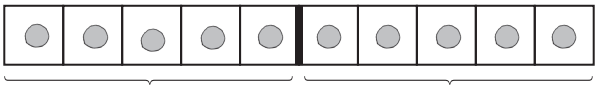
Add 1 counter. **How many counters are there now?** *8.* **5 and 3 make 8.**



Add 1 counter. **How many counters are there now?** *9.* **5 and 4 make 9.**



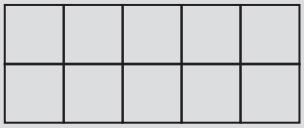
Add 1 counter. **How many counters are there now?** *10.* **The whole ten-frame is full, so we know that there are 10 counters. 5 and 5 make 10.**



Using the ten-frames on Blackline Master 1 helps your child visualize numbers and develop deep number sense. These foundational skills prepare her to learn to add and subtract efficiently and accurately, without counting on her fingers.

If you've used other math programs, you may have seen ten-frames organized into 2 rows of 5 instead.

The 1×10 ten-frame used in this program.



The 2×5 ten-frame used in some other programs.

There's nothing wrong with 2×5 ten-frames, and both types help children develop deep number sense. This program uses a 1×10 ten-frame for several reasons:

1. Children find the end of the row to be a very powerful mental end point. This prepares them to think of a group of 10 as 1 unit and understand place value.
2. 1×10 ten-frames can be stacked, so that children immediately see how many boxes are full. For example, in Unit 5 you will use stacked ten-frames to teach your child place value for the numbers from 11 to 20.
3. 1×10 ten-frames prepare children to use arrays to represent multiplication in second and third grade.

Activity: Play Race to 10

Play Race to 10. As you play, encourage your child to think of the combinations of "5 and some more" as she names the number of counters on her ten-frame.

Race to 10

Materials: Double ten-frames (Blackline Master 1), coin, counters

Object of the Game: Be the first player to reach 10.

Each player chooses one ten-frame to fill.

On your turn, flip the coin. If it is heads, add one counter to your ten-frame. If it is tails, add 2 counters. After you add the counters, say the total number of counters on your ten-frame.

Take turns until one person has filled his entire ten-frame.

Workbook: Identify Quantities on the Ten-Frame and Review

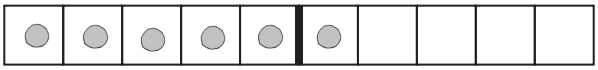
Have your child complete workbook pages 2.1A and 2.1B. Encourage her to look for combinations of "5 and some more" as she matches the ten-frames and numbers (rather than counting one by one).

Lesson 2.2
"5 and Some More" with Tallies

	Purpose	Materials
Warm-up	• Estimate and count up to 20 objects by 2s • Practice memory work • Review combinations of "5 and some more" on the ten-frame	• Counters • Double ten-frames (Blackline Master 1)
Activities	• Recognize up to 10 tallies • Draw tallies	• Coin • Number Cards • Index cards
Workbook	• Recognize up to 10 tallies	• Workbook pages 2.2A and 2.2B

Warm-up: Counting, Memory Work, and Review

- Place about 10-12 counters on the table. **About how many counters do you think there are?** *Answers will vary.* Have your child count by 2s to find the actual number of counters.
- **Hop on your left leg. Hop on your right leg.**
- Arrange counters on the ten-frame as shown. For each arrangement, have your child identify the combination of "5 and some more" and the total number of counters.



5 and 1 make 6.

5 and 5 make 10.

5 and 4 make 9.

5 and 2 make 7.

5 and 3 make 8.

Activity: Use Tallies to Record Heads and Tails

In the last lesson, you learned the combinations of "5 and some more" on the ten-frame. Today, you'll learn how to represent numbers up to 10 with tallies. You'll learn to recognize tallies as combinations of "5 and some more," too.

Because tallies are arranged in groups of 5, they provide more practice with the combinations of "5 and some more."

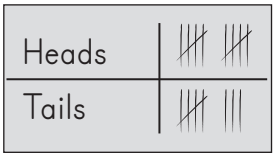
Have you ever seen someone use tallies or used them yourself? Discuss your child's experience with tallies.

Tallies help us keep count. We'll use tallies today to keep track of coin flips. You'll flip a coin, and then I'll make a tally to count whether the coin shows heads or tails. We'll keep going until there are 10 heads or 10 tails. I wonder whether heads or tails will win!

Make a simple chart as shown.

Have your child flip a coin. Mark a tally in the chart to match the flip. For example, if he flips heads, make a tally in the Heads row.

Continue until one row has 10 tallies. Draw every fifth tally horizontally across the previous 4 tallies, as shown.

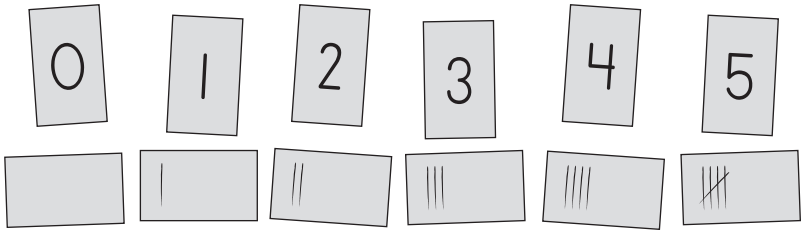


Sample results

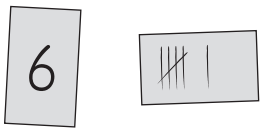
How many heads did you flip? How many tails did you flip? Did heads or tails win? *Answers will vary.*

Activity: Make Tally Cards

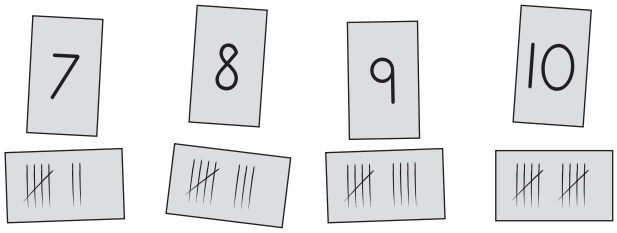
Have your child put 1 set of Number Cards in order from 0 to 10. For 0 through 5, have your child draw the corresponding number of tallies on blank index cards. (For 0, leave the card blank.)



Show your child how to make Tally Card 6. **5 and 1 is 6. First, I draw 5 tallies.** Draw a group of 5 tallies, with the fifth tally drawn horizontally across the previous 4 tallies. **Then, I draw 1 more, for a total of 6.**



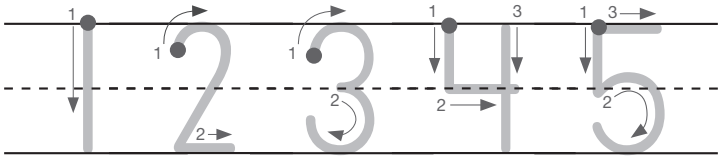
Have your child make Tally Cards for numbers 7 through 10. For number 10, show your child how to draw the final tally horizontally across the previous 4 tallies.

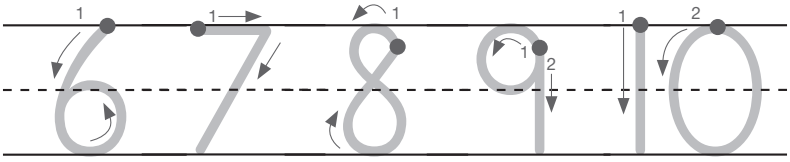


Save these Tally Cards for future lessons.

Workbook: Identify Tallies and Review

Have your child complete workbook pages 2.2A and 2.2B. Before he starts, show him Blackline Master 2, Number Examples. **You can look at this if you have trouble remembering how to write any of the numbers.**





First-graders often reverse numbers, so Blackline Master 2 provides a visual model for your child to use as needed. Post it on a wall, tape it onto the table where your child usually works, or tuck it into the workbook so your child can refer to it throughout the year.

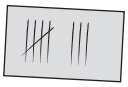
Lesson 2.3
"5 and Some More" with Coins

	Purpose	Materials
Warm-up	• Count out a given number of counters by 2s • Practice memory work • Review combinations of "5 and some more" with tallies	• Counters • Tally Cards
Activities	• Find the value of coin combinations • Represent combinations of "5 and some more" in many ways	• Coins • Number Cards • Tally Cards
Workbook	• Find the value of coin combinations	• Workbook pages 2.3A and 2.3B

If you live outside the U.S., see page 28 to learn how to modify lessons to match your local currency.

Warm-up: Counting, Memory Work, and Review

- Have your child count out 18 counters by 2s.
- **Wink your right eye. Wink your left eye.**
- Shuffle Tally Cards 6-10. Show your child one card at a time. Have her identify the combination of "5 and some more" and the total number of tallies on each card.



5 and 3 make 8.

Some children find review activities confidence-building and affirming. Others feel insulted when asked to revisit skills they've already learned. If you have a child who hates review, focus your warm-up time on the topics your child most needs to practice and skip reviewing material that she knows well. Or, save these warm-up exercises for the end of the lesson so that her aversion to them doesn't ruin the entire session.

Activity: Introduce Pennies and Nickels

In the last lesson, you learned to draw tallies. Today, you'll learn about coins, and you'll use coins to make combinations of "5 and some more."

Have you ever used coins to buy something? Discuss your child's experiences with coins.

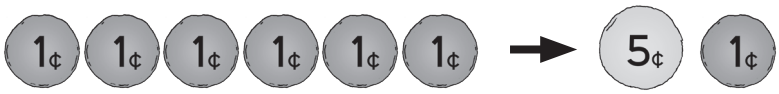
Show your child a penny. **This coin is called a penny. It's worth one cent.**

Show your child 3 pennies. **If 1 penny is worth 1 cent, how many cents are 3 pennies worth?** *3 cents.* **2 pennies?** *2 cents.* **4 pennies?** *4 cents.* **5 pennies?** *5 cents.*

Imagine if pennies were our only kind of money. We would need a lot of pennies just to buy a few things at the grocery store! It would take a long time to count out all those pennies every time we bought something!

That's why we use coins and paper bills worth more than just one cent. Instead of 5 pennies, we can use 1 nickel. 1 nickel is also worth 5 cents. Show your child 1 nickel.

Show your child 6 pennies. Have your child group 5 of the pennies. **1 nickel is worth 5¢. So, we can trade these 5 pennies for 1 nickel.** Have your child help you trade the 5 pennies for 1 nickel.



How much are a nickel and a penny worth together? *6¢.*

> If your child has trouble answering, remind her the nickel is worth 5¢. So, she can count on from 5 to find the answer: *5, 6.*

Show your child the following coin combinations and have her tell the value of each combination.

- 1 nickel and 2 pennies (7¢)
- 1 nickel and 3 pennies (8¢)
- 1 nickel and 4 pennies (9¢)
- 2 nickels (10¢)

Activity: "5 and Some More" Relay

Set up 3 stations around the room. Place the following supplies at each station.

- Station 1: Number Cards 5-10.
- Station 2: Tally Cards 5-10
- Station 3: Coins. Include at least 7 nickels and 10 pennies.

> This activity helps your child understand the connection between the different ways to show the combinations of "5 and some more."

Start at Station 1 with your child. Give your child one of the Number Cards. Have her run to Station 2 to pick up the corresponding Tally Card, then to Station 3 to pick up the corresponding coin combination.

Then, she should run back to Station 1 and begin again with a new Number Card. Continue until she uses all the cards.

Workbook: Recognize Money Combinations and Review

Have your child complete workbook pages 2.3A and 2.3B. On 2.3A, point out the cents sign (¢) and explain what it means.

> Children often have trouble remembering coin names and values. To prevent frustration, the workbook uses simplified coins rather than photo-realistic images. Your child will memorize the names and values of coins as part of her Memory Work.

Lesson 2.4
"5 and Some More" with Paper Money

	Purpose	Materials
Warm-up	• Count to 20 • Practice memory work • Review identifying quantities on the ten-frame by sight	• 100 Chart (Blackline Master 3) • Counters • Double ten-frames (Blackline Master 1) • Coin
Activities	• Introduce paper money • Find the value of paper money combinations	• Real five-dollar bill and one-dollar bill • Paper play money (either from a board game or Blackline Master 12) • 5 small toys • Index cards
Workbook	• Find the value of paper money combinations	• Workbook pages 2.4A and 2.4B

If you live outside the U.S., see page 28 to learn how to incorporate your country's paper bills throughout the year.

Warm-up: Counting, Memory Work, and Review

- Have your child count to 20, pointing to each number on the 100 Chart as he says it.
- **Raise your left hand. Raise your right hand.**
- Play Race to 10. See Lesson 2.1 (page 31) for directions.

Activity: Introduce Paper Money

In the last lesson, you learned about pennies and nickels. Today, you'll learn about paper money.

Have you ever used paper bills to buy something? Discuss your child's experiences with paper bills.

Show your child a one-dollar bill. **This is a one-dollar bill. One dollar equals one hundred cents.**

Later this year, your child will memorize that a dollar equals 100 cents. He does not need to memorize it now.

Show your child a five-dollar bill. **This is a five-dollar bill. It's worth the same as 5 one-dollar bills.**

Show your child the play money in your Math Kit. **We'll use play money in math this year.** Show your child the following paper money combinations and have him tell the value of each combination.

- 4 one-dollar bills ($4)
- 2 one-dollar bills ($2)
- 1 five-dollar bill and 1 one-dollar bill ($6)
- 1 five-dollar bill and 4 one-dollar bills ($9)
- 1 five-dollar bill and 3 one-dollar bills ($8)
- 1 five-dollar bill and 2 one-dollar bills ($7)
- 2 five-dollar bills ($10)

Children learn math best end enjoy it most when the material is at their "Goldilocks" challenge level: not too hard, not too easy, but just right. You'll frequently find lists of practice problems (like the one above) in this program. The problems are generally in order from easiest to most difficult. Feel free to adjust the difficulty level based on how well your child has grasped the material. If he's struggling, focus on the easier problems, or make up some more similarly easy problems. If your child readily learns the material, skip to the harder problems, or make up some related problems that are even harder. You'll both enjoy math time more when your child is working at the appropriate challenge level.

Activity: Pretend Store with Paper Money

We are going to play store. First, let's make the price tags. Write $6 on an index card. Point to the dollar sign. **This is called the dollar sign. It looks like an S with a line through it.**

Have your child write $7, $8, $9, and $10 on index cards. Lay 5 small toys in a row and place one of the index cards next to each toy. Give your child play five-dollar bills and one-dollar bills to "buy" things with.

What would you like to buy? *Answers will vary.* Have him tell you the price and pay for the item with a five-dollar bill and the correct number of one-dollar bills. (He should use 2 five-dollar bills for the $10 item.)

Continue until your child has bought all of the items.

Workbook: Recognize Money Combinations and Review

Have your child complete workbook pages 2.4A and 2.4B.

Lesson 2.5
Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	• Review counting • Review memory work • Review your child's favorite or most challenging activities from Week 2	• Varies, depending on the activities you choose
Picture Book	• Understand counting by 2s in a real-life context	• *Two Ways to Count to 10: A Liberian Folktale*, retold by Ruby Dee and illustrated by Susan Meddaugh
Enrichment Activity	• Review numbers 1-10 through active play	• Chalk, tape, or 10 sheets of paper for making a hopscotch course • Small beanbag, stone, or other hopscotch marker

Warm-up: Counting, Memory Work, and Review

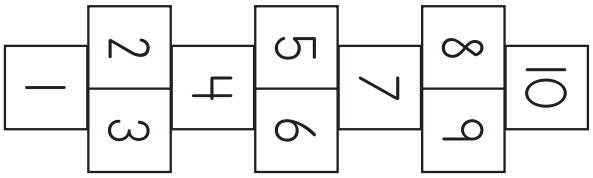
- Have your child count to 20 by 1s and 2s.
- Quiz your child on the memory work through Week 2. See page 499 for the full list.
- If you have time, repeat one or two of the activities from this week's lessons. Choose activities your child especially enjoyed or found challenging.

Math Picture Book: *Two Ways to Count to 10*

Read *Two Ways to Count to 10: A Liberian Folktale*, retold by Ruby Dee and illustrated by Susan Meddaugh.

Enrichment Activity: Play Hopscotch

If you're able to play outside, draw a hopscotch board (shown below) with chalk on pavement. If you're playing inside, use tape to create the hopscotch board on a flat surface. Or, write each number on a piece of paper and tape the paper to the floor.



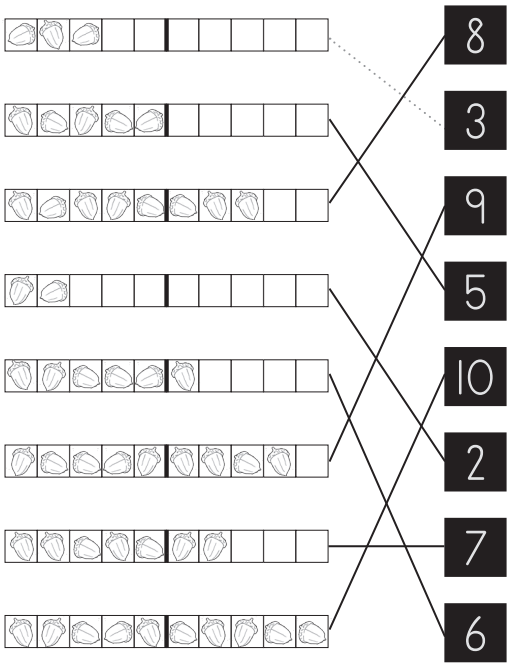
Choose from the following hopscotch activities:

- Challenge your child to hop from 1 to 10 in order, without falling over or touching a line. When he reaches 10, he should turn around and hop back to 1.
- Ask your child to hop by 2s from 2 to 10.
- Teach your child how to play traditional hopscotch: Throw a beanbag (or stone, or another marker) onto square 1. Don't hop on the square with the beanbag, then hop through every square up to 10. When you reach 10, turn around and hop back through the course. When you reach the beanbag, balance on one foot to pick it up and finish the course. Then, toss the beanbag onto square 2 and repeat. Continue tossing the beanbag onto the squares in order. See how high a number you can reach before you lose your balance or touch a line.

Week 2 Answer Key

2.1A

Match.

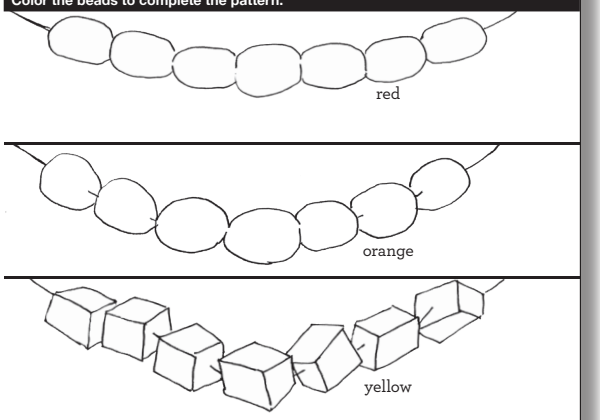


2.1B

Trace and copy.

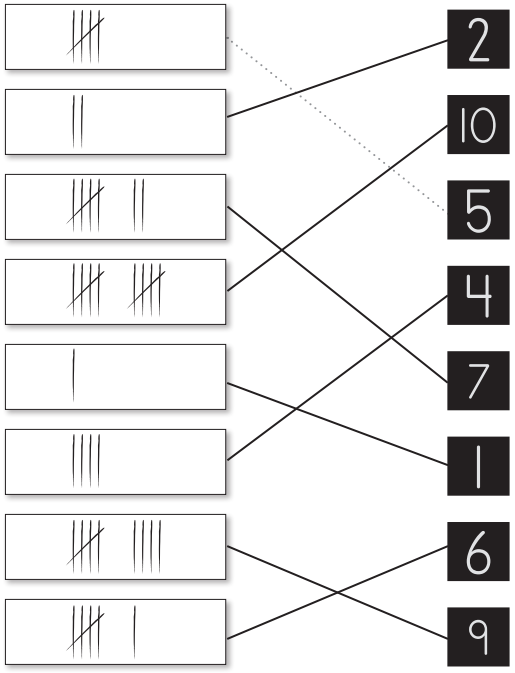
1 1 2 2 3 3 4 4
5 5 6 6 7 7 8 8
9 9 10 10

Color the beads to complete the pattern.



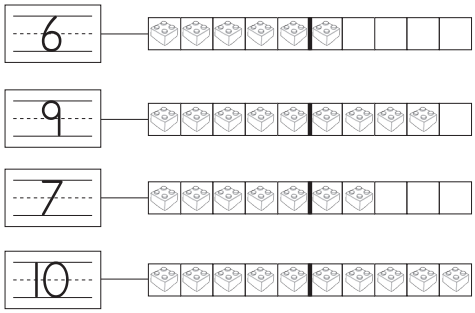
2.2A

Match.

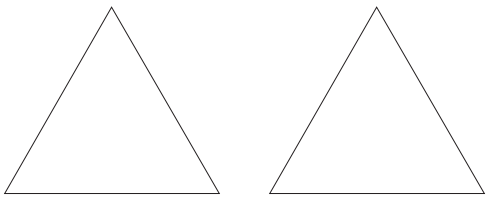


2.2B

Write how many.



Fill the outline with pattern blocks two different ways.
Write how many blocks you use.



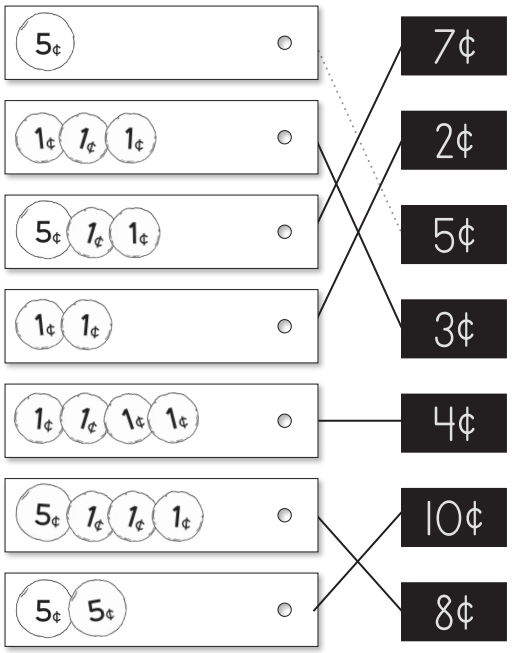
____ blocks ____ blocks

Many answers are possible.

Week 2 Answer Key

2.3A

Match.

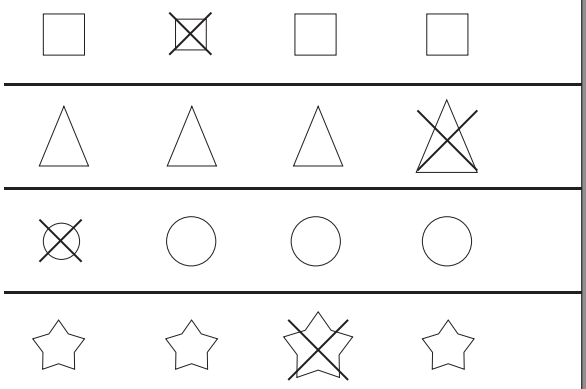


2.3B

Trace and copy.

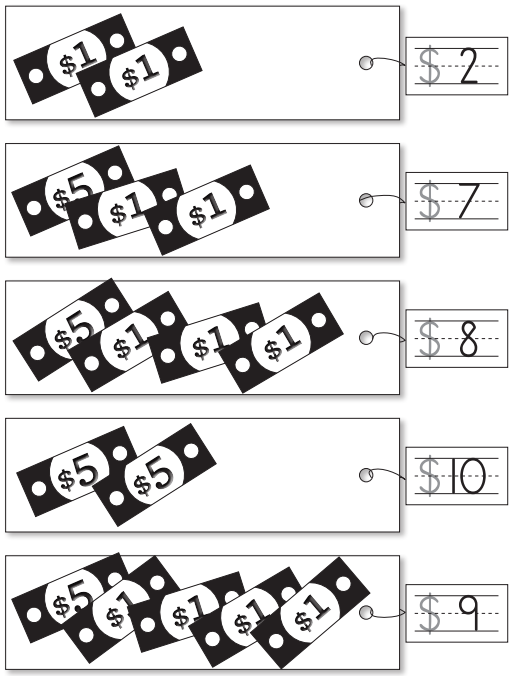
1 1 2 2 3 3 4 4
5 5 6 6 7 7 8 8
9 9 10 10

X the shape that is different from the rest.



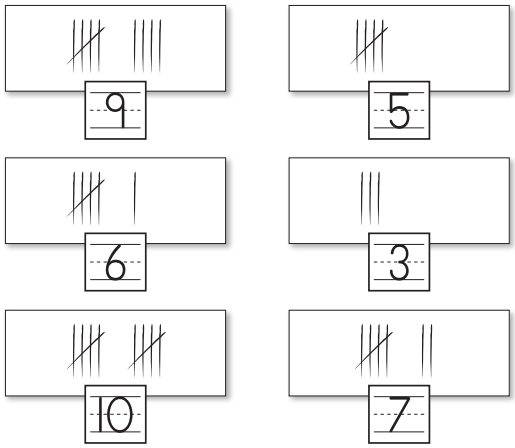
2.4A

Complete.

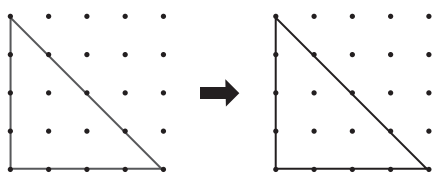


2.4B

Write how many.



Copy the shape.



Week 3
Split and Join Numbers to 10

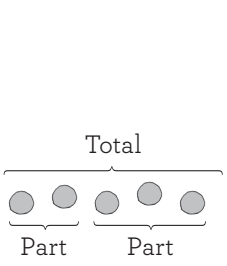
Overview

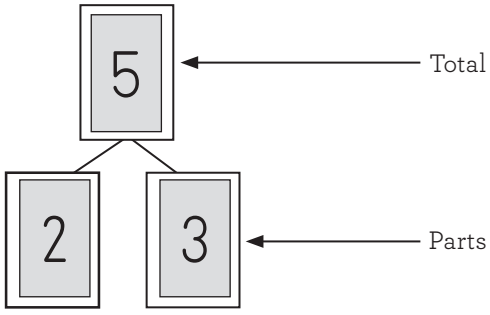
This week, your child will preview addition and subtraction as she learns to split numbers into parts and join parts to make totals. She'll also practice the combinations that equal 5 and the combinations that equal 10.

Lesson 3.1	Split 5 into Parts
Lesson 3.2	Join Parts to Make a Total
Lesson 3.3	Split 10 in Many Ways
Lesson 3.4	Combinations That Make 10
Lesson 3.5	Enrichment and Review (Optional)

Teaching Math with Confidence: The Part-Total Mat

You'll introduce the Part-Total Mat to your child this week. This simple mat will help your child understand the essential idea that we can join numbers together to make a total and that we can split a total into parts. For example, the Part-Total Mat below shows 2 and 3 can be joined to make 5, and 5 can be split apart into 2 and 3.

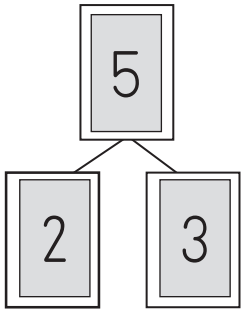




Your child will use the mat this week to record her results as she splits and joins quantities. She'll develop a deeper understanding of the relationships between these parts and totals, so that she is well-prepared for addition and subtraction. Later in the program, she'll use the Part-Total Mat to help write and solve addition and subtraction equations.

$2 + 3 = 5$

$3 + 2 = 5$



$5 - 2 = 3$

$5 - 3 = 2$

If you have used other math programs, you may have seen other versions of these diagrams. Sometimes they're made from circles or oriented horizontally, and sometimes they're called "Part-Whole" diagrams rather than "Part-Total." No matter what they're called or how they look, they all express the same fundamental concept.

Extra Materials Needed for Week 3

- Small toy
- Plastic plate, optional
- For optional Enrichment and Review Lesson:
    - *Anno's Counting Book*, by Mitsumasa Anno

Lesson 3.1
Split 5 into Parts

	Purpose	Materials
Warm-up	• Count objects by 2s with a leftover • Practice memory work • Review finding combinations of one-dollar and five-dollar bills	• Counters • Play money
Activities	• Use the Part-Total Mat to identify parts and totals • Find combinations that make 5	• Counters • Part-Total Mat (Blackline Master 4) • Number Cards • Small toy • Play money
Workbook	• Find combinations that make 5	• Workbook pages 3.1A and 3.1B

Warm-up: Counting, Memory Work, and Review

- Secretly count out 15 counters and place them on the table. **About how many pennies do you think there are?** *Answers will vary.* Help your child count by 2s to find the actual number of counters. Demonstrate how to add on the final counter: **14 and 1 more is 15.**

  If your child finds the counting activities repetitive, vary the objects you ask her to count. Food, toys, or seasonal items all make counting more fun and interesting.

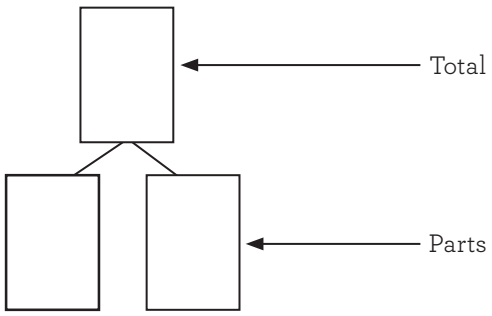
- **Raise your right hand. Raise your left hand.**
- Show your child the following play money combinations. Have her tell the value of each.
  - 3 one-dollar bills *($3)*
  - 1 five-dollar bill *($5)*
  - 1 five-dollar bill and 2 one-dollar bills *($7)*
  - 1 five-dollar bill and 3 one-dollar bills *($8)*
  - 2 five-dollar bills *($10)*

Activity: Introduce the Part-Total Mat

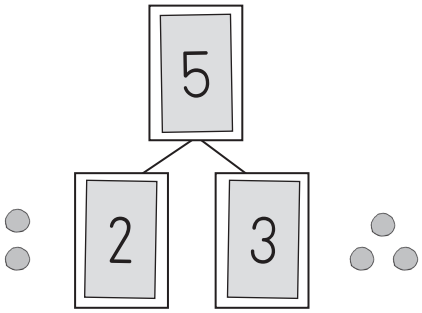
This week you'll learn about splitting and joining numbers. Today, you'll split a group of 5 into parts and learn how to record the parts and total on a special mat.

Place 5 counters on the table. **Let's pretend the counters are cookies for us to split.** Split the counters as shown. **If I get 2 cookies, how many do you get?** *3.*

In math this year we'll use a mat called the Part-Total Mat to show how we split and join groups. Show your child the Part-Total Mat (Blackline Master 4). **The total goes in the box at the top. The parts go in the boxes at the bottom.**



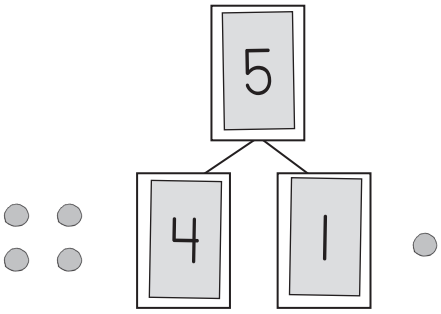
We have a total of 5 cookies. Place Number Card 5 on the mat as shown. **I split the cookies into two parts. I got 2 cookies, and you got 3.** Place Number Cards 2 and 3 on the mat.



If you find the Number Cards cumbersome, place the Part-Total Mat in a plastic page protector and write the numbers with dry-erase marker instead.

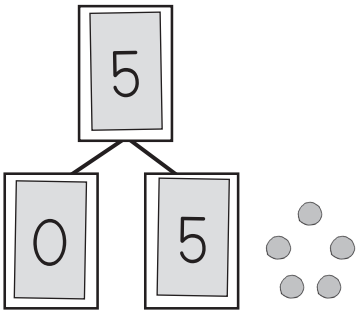
See the Week 3 **Teaching Math with Confidence** for more information about the purpose of the Part-Total Mat and how to use it.

Let's split the cookies a different way. If I get 4 cookies, how many do you get? *1.* Have your child split the counters to match and show the parts and total with Number Cards on the Part-Total Mat.



Your child can arrange the parts on the Part-Total Mat in any order. In the above example, your child can switch the 1 and 4.

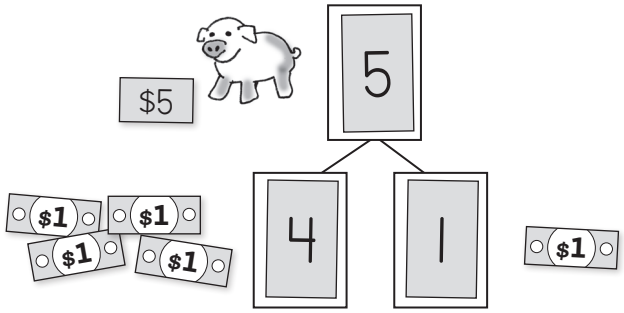
If I get 0 cookies, how many do you get? *5*. Have your child split the counters to match and show the parts and total on the Part-Total Mat.



Activity: How Much More Money Do I Need?

Have your child choose a toy to use in the lesson and bring it to the table. **Let's pretend you want to buy this toy, and it costs $5.** Write $5 on an index card and place it next to the toy. **But, you only have 4 dollars.** Give your child a 4 $1-bills.

How many more dollars do you need to buy the toy? *$1*. If she's not sure, place Number Cards on the Part-Total Mat to help: **You need a total of $5, so 5 goes in box at the top. You already have $4, so 4 is one of the parts. 4 and what make 5?** *1*.



Repeat this process with the following problems. Act out each problem with play money and use the Part-Total Mat as needed to find the answers.

- **If you have $2, how many more dollars do you need to buy the toy?** *$3*.
- **If you have $1, how many more dollars do you need to buy the toy?** *$4*.
- **If you have $0, how many more dollars do you need to buy the toy?** *$5*.
- **If you have $3, how many more dollars do you need to buy the toy?** *$2*.
- **If you have $5, how many more dollars do you need to buy the toy?** *$0*.

Workbook: Combinations That Make 5 and Review

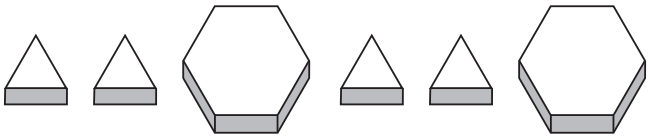
Have your child complete workbook pages 3.1A and 3.1B.

Lesson 3.2
Join Parts to Make a Total

	Purpose	Materials
Warm-up	• Count objects by 2s with a leftover • Practice memory work • Review patterns and ordinal numbers	• Counters • Pattern blocks
Activities	• Join parts to make a total • Represent parts and totals on the Part-Total Mat • Visualize quantities and totals	• Pattern blocks • Plastic plate, or piece of paper • Part-Total Mat (Blackline Master 4) • Number Cards
Workbook	• Find totals with small numbers	• Workbook pages 3.2A and 3.2B

Warm-up: Counting, Memory Work, and Review

- Have your child count out 17 counters. Ask him to count by 2s to 16, then add 1 more counter for a total of 17.
- **Hop on your right leg. Hop on your left leg.**
- Begin a pattern as shown:

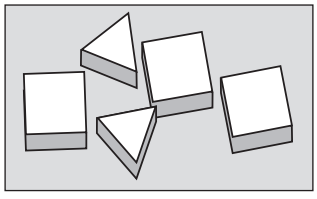


Have your child continue the pattern. Then, briefly review ordinal numbers: **Which block did I place first? Second? Fifth? Fourth? Third?**

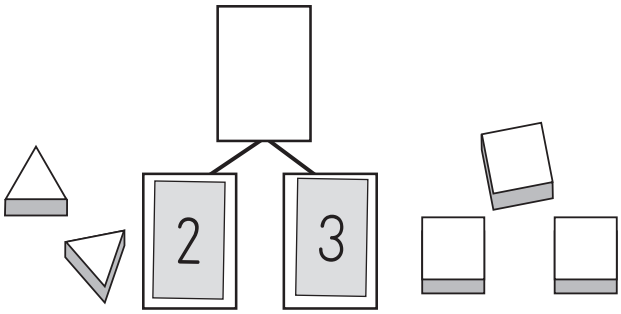
Activity: Join Parts to Make a Total

In the last lesson, you split a group of 5 into parts and learned how to record the parts and total on the Part-Total Mat. Today, we'll join parts to make a total.

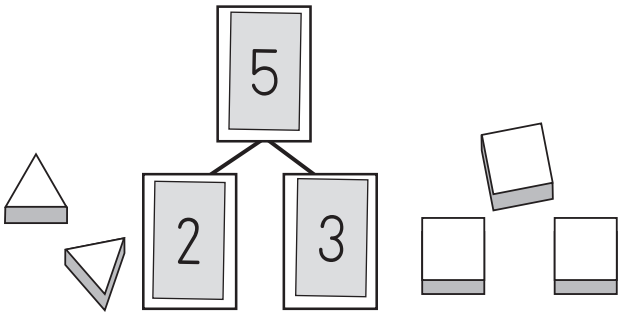
We're going to play restaurant today. Let's pretend the pattern blocks are crackers. I'll be the customer, and you can be the server. Could you please serve me 2 triangle crackers and 3 square crackers? *Child places 2 triangles and 3 squares on a plastic plate (or blank piece of paper) and pretends to serve it to you.*



Let's put cards on the Part-Total Mat to match the crackers. There are 2 triangle crackers, so I'll put a 2 on the mat to stand for them. Place Number Card 2 on the mat as shown below. **There are 3 square crackers, so I'll put a 3 on the mat to stand for them.** Place Number Card 3 on the mat.

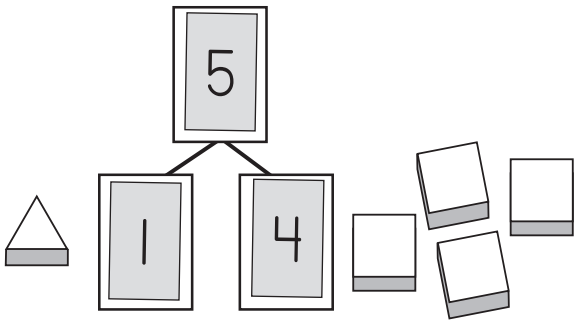


Once you join the squares and triangles, how many crackers are there in total? *5*. **So, let's put a 5 in the total box.** Place Number Card 5 on the mat.

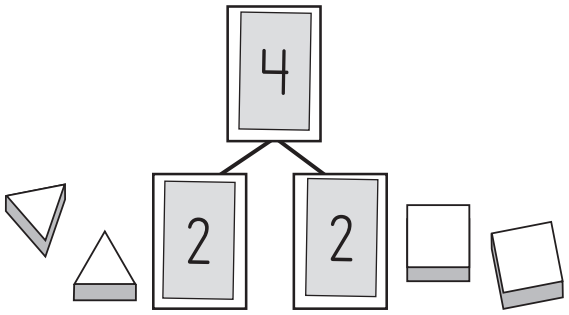


Repeat with the following orders. For each order, have your child model the problem with pattern blocks and place the corresponding cards on the Part-Total Mat.

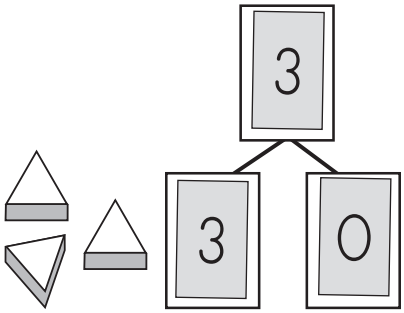
I'd like 1 triangle cracker and 4 square crackers, please.



I'd like 2 triangle crackers and 2 square crackers, please.



I'd like 3 triangle crackers and 0 square crackers, please.

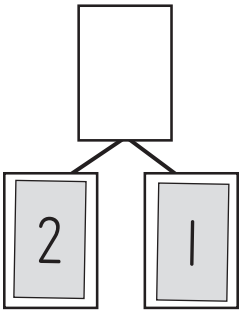


The numbers in this lesson are small so your child focuses on making sense of the Part-Total Mat. If your child wants more of a challenge, use 6-10 total crackers instead.

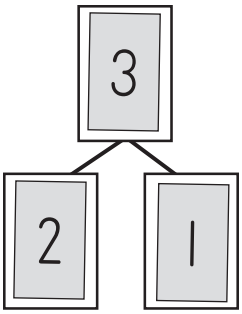
Activity: Find Totals of Boys and Girls

We can also use the Part-Total Mat for real-life parts and totals. Let's use it to show the children in our family. How many boys are in our family? How many girls? *Answers will vary.*

Have your child place Number Cards on the Part-Total Mat to match the number of boys and girls in your family. For example, if you have 2 boys and 1 girl, have him place a 2 and a 1 on the mat.



What's the total number of children in our family? *Answers will vary.* Have your child place the Number Card that matches the total on the Part-Total Mat. For example, if you have 2 boys and 1 girl, have your child place Number Card 3 at the top of the mat.



Repeat this activity with several other families you know. Try to include a larger family, as well as a family with either no boys or no girls (so your child practices finding the total when one part is 0).

If your child has trouble finding the totals, use counters to stand for each child. Then, have your child count all the counters to find the total.

Workbook: Find Totals and Review

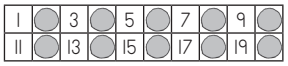
Have your child complete workbook pages 3.2A and 3.2B.

Lesson 3.3
Split 10 in Many Ways

	Purpose	Materials
Warm-up	• Count to 20 by 2s • Practice memory work • Review combinations of "5 and some more" on the ten-frame	• Counters • 100 Chart (Blackline Master 3) • Double ten-frames (Blackline Master 1) • Paper
Activities	• Find combinations that make 10 • Represent parts and totals on the Part-Total Mat	• Counters • Double ten-frames (Blackline Master 1) • Part-Total Mat (Blackline Master 4) • Number Cards
Workbook	• Find combinations that make 10	• Workbook pages 3.3A and 3.3B

Warm-up: Counting, Memory Work, and Review

- Have your child count by 2s to 20. Have her cover each number on the 100 Chart with a counter as she says it.



- **Wink your right eye. Wink your left eye.**
- Secretly place 9 counters on the ten-frame and cover the counters with a piece of paper.

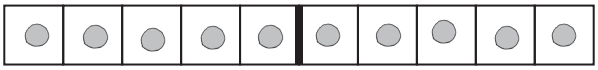
I'm going to show you some counters for just a second. When I lift the paper, tell me how many counters there are, as fast as you can. Lift the piece of paper for just a few seconds. **How many counters?** *9*. After your child responds, lift the paper and allow her to check her answer.

Repeat with 5, 6, 7, 8, and 10 counters, in random order. Encourage her to think about the combinations of "5 and some more" rather than counting.

Activity: How Many Ways to Split 10?

In the last lesson, we joined parts together to make totals. Today, we'll split a group of 10.

Let's pretend we have 10 candies to share. Place 10 counters on the ten-frame.

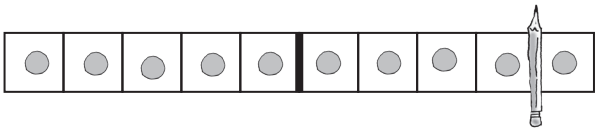


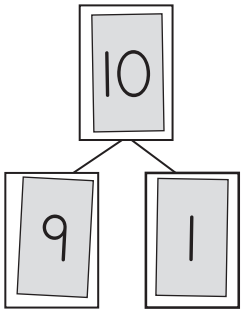
How many different ways do you think there are for us to split these 10 candies? *Answers will vary.* **Let's see how many different ways we can find. I'll make a chart to keep track.**

Draw a simple chart like the following on a piece of paper.

Rebekah										
Mom										

What's one way we could split the counters? Have your child place a pencil on the ten-frame to split the counters between the two of you, either evenly or unevenly. Then have your child place Number Cards on the Part-Total Mat to match. Record how many counters each of you get in the chart.





Rebekah	9									
Mom	1									

Sample answer.

Have your child find more ways to split the counters until she can't think of any more.

After she finishes, show her the chart below and discuss if there are any ways you missed.

Rebekah	9	8	7	6	5	4	3	2	1	0	10
Mom	1	2	3	4	5	6	7	8	9	10	0

The goal of this activity is for your child to understand that numbers can be split in many ways, not to teach her how to find all possible combinations. It's fine if she only finds a few ways to split the counters. Later in elementary school, she will learn how to make organized lists to keep track of all possible combinations.

Activity: Play Make 10 Go Fish

Play one round of Make 10 Go Fish.

This game is just like the classic Go Fish game, but players find pairs of cards that equal 10 rather than cards with the same number.

Make 10 Go Fish

Materials: 2 sets of Number Cards (0–10)

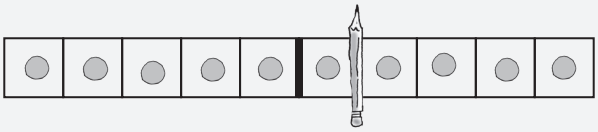
Object of the Game: Collect the most pairs of cards that make 10.

Shuffle two sets of Number Cards (0–10). Deal out 5 cards to yourself and 5 cards to your child. Spread the rest of the cards face down on the table to be the "fishpond."

On your turn, ask for a card that would create a total of 10 with a card already in your hand. (For example, if you have a 6, ask for a 4.) Your opponent must give you the card if she has it. If she doesn't have the card, she says, "Go fish!" and you take a card from the fishpond.

Play until you have paired all the cards. Players who run out of cards before the fishpond is used up may take 2 cards from the fishpond to continue playing. Whoever has more pairs at the end of the game is the winner.

Leave 10 counters on the ten-frame as you play. Your child can split the counters into 2 parts if she is not sure which card to ask for. For example, if she has a 6:



I have a 6, so I need a 4.

Games provide a fun and motivating way for your child to practice her math skills. However, they also take some time. If you don't have time for a particular game (or if your child is resistant to it), skip the game and simply practice the skill instead. For example, if you don't have time to play Make 10 Go Fish, tell your child a number from 0 to 10 and have her name the matching number that makes 10.

Workbook: Find Parts and Totals and Review

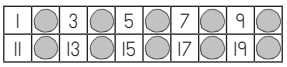
Have your child complete workbook pages 3.3A and 3.3B.

Lesson 3.4
Combinations That Make 10

	Purpose	Materials
Warm-up	• Count to 20 by 2s • Practice memory work • Review writing numbers to 10	• Counters • 100 Chart (Blackline Master 3)
Activities	• Find combinations that make 10	• Counters • Double ten-frames (Blackline Master 1) • Part-Total Mat (Blackline Master 4) • Number Cards • Playing cards
Workbook	• Find combinations that make 10	• Workbook pages 3.4A and 3.4B

Warm-up: Counting, Memory Work, and Review

- With your child looking away, place counters on the 100 Chart so that the numbers you say when you count by 2s to 20 are covered.



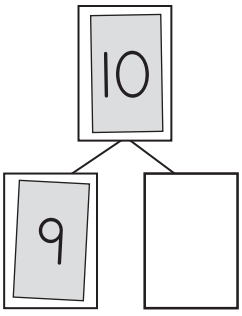
  Have your child count by 2s to 20. Have him remove each counter after he says the number underneath it.
- **Touch your left ear. Touch your right ear.**
- Say a number from 0 to 10 and have your child write the number on a piece of paper. Repeat with all of the numbers from 0 to 10, in random order.

> This informal assessment shows you how your child is doing with writing the numbers from 0 to 10. It's very common for first graders to have trouble with reversing numbers or forgetting the order of strokes, so don't worry if your child makes several mistakes.

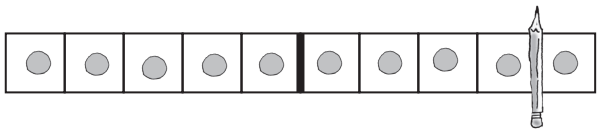
Activity: Find Missing Parts of 10

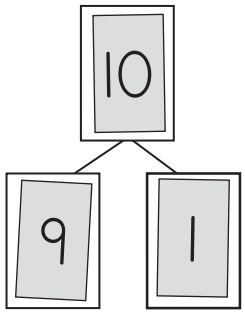
In the last lesson, you split 10 in many ways. Today, you'll practice the combinations that make 10 some more.

Place Number Cards on the Part-Total Mat as shown. **What number is missing?** *1.*

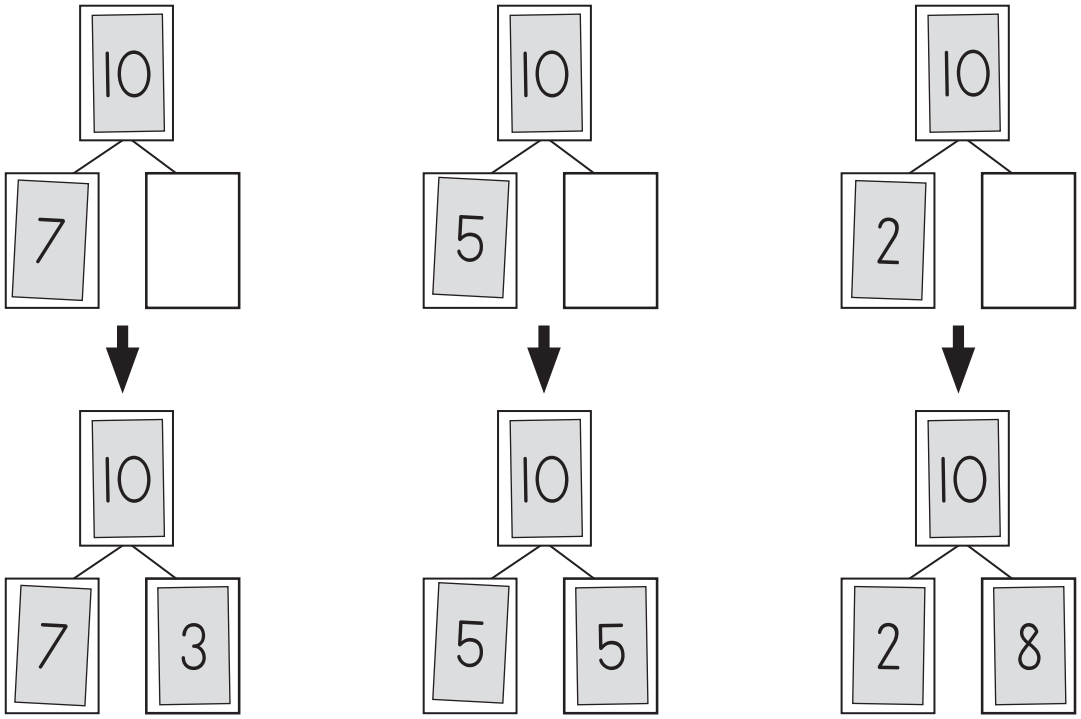


If your child isn't sure, have him place 10 counters on the ten-frame and split the counters into a group of 9 and 1. **You can split 10 into a group of 9 and a group of 1, so 1 is the missing number.**





Ask your child to find the following missing numbers on the Part-Total Mat. Have him use counters on the ten-frame as needed to find the answers.



Activity: Play Make 10 Pyramid Solitaire

Have your child play one round of Make 10 Pyramid Solitaire. Allow your child to use the ten-frame and counters as needed.

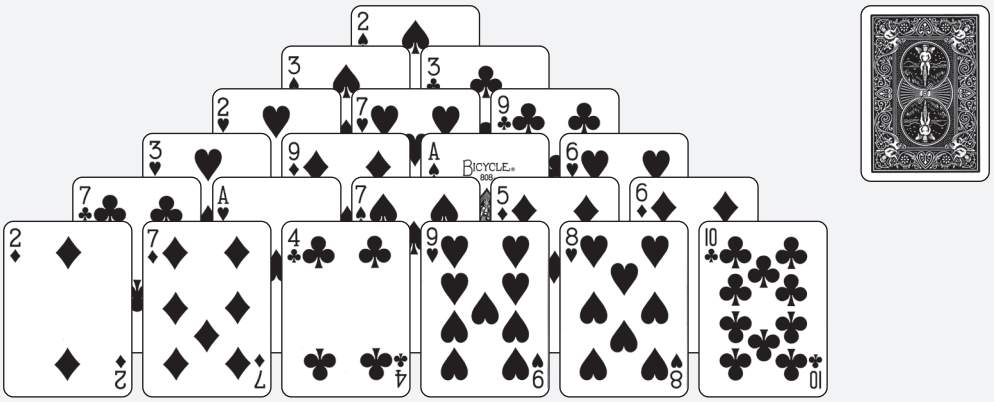
If your child is still learning the pairs that make 10, Make 10 Pyramid may be too complicated. If so, play Make 10 Go Fish again instead. See Lesson 3.3 (page 52) for directions. Both games practice the same skills, so use whichever game your child enjoys more.

Make 10 Pyramid Solitaire

Materials: Deck of playing cards with face cards removed

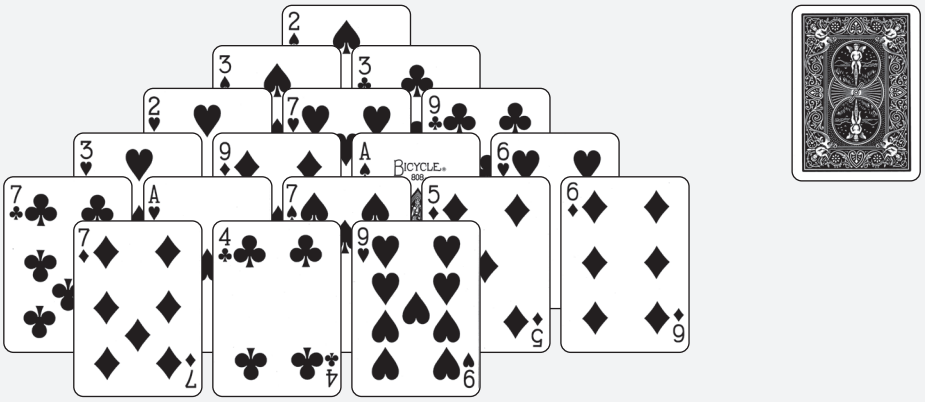
Object of the Game: Remove as many cards as possible from the pyramid. (The best score possible is 0. Depending on how the cards are dealt, it's not always possible to remove every card.)

Shuffle the cards. Deal them out face-up in a pyramid shape. An example is shown below. Start at the top and place each new row so it slightly overlaps the previous row. Place the remaining cards in a face-down pile.



Look for pairs that make 10 in the bottom row of the pyramid. For example, in the sample game above, you could remove the 8 and 2, since they make a 10. You could also remove the 10, since it equals 10 by itself.

As more cards are uncovered, use those to make 10 as well. You can only use cards that are fully uncovered. For example, in the pyramid below, you can remove the 4 and 6; however, you cannot use the 5, 7s, or Ace in the second row from the bottom.



Once you have removed as many cards as possible from the pyramid, flip over the top card from the face-down pile. See if you can use it to make a 10 with a card in the pyramid. As more cards are uncovered in the pyramid, you may also find more pairs there.

Continue flipping over the top card in the pile and removing pairs that make 10 until no more are possible. (You are allowed to flip through the face-down pile as many times as you wish.) Count how many cards are left in the pyramid for the final score.

Workbook: Find Combinations That Make 10 and Review

Have your child complete workbook pages 3.4A and 3.4B. He can use the ten-frame printed at the top of 3.4A to help. If he has trouble finding any of the missing numbers, have him place his pencil on the printed ten-frame to split the counters to match the Part-Total diagram.

Many first graders have a short attention span. If your child struggles to complete the workbook pages, try breaking it into chunks throughout the day. Set a timer for 5 minutes at a time and ask your child to give his best effort for the full 5 minutes. Children are often amazed at how much they can get done in a short amount of time when they give their work their full attention.

Lesson 3.5
Enrichment and Review (Optional)

	Purpose	Materials
Warm-up	• Review counting • Review memory work • Review your child's favorite or most challenging activities from Week 3	• Varies, depending on the activities you choose
Picture Book	• Find numbers represented in many different ways	• *Anno's Counting Book*, by Mitsumasa Anno
Enrichment Activity	• Use real-life objects to represent a number in many ways	• Varies

Warm-up: Counting, Memory Work, and Review

- Have your child count to 20 by 1s and 2s.
- Quiz your child on the memory work through Week 2. See page 499 for the full list.

  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: *Anno's Counting Book*

Read *Anno's Counting Book*, by Mitsumasa Anno. As you read, discuss the many ways each number is represented on its page. For example, on the page showing the number 5, you can find 5 trees, 5 wisps of smoke, 5 flags, 5 adults, 5 children, and a clock reading 5:00 (among many others!) Point out that any of the pictures depict splitting a number into parts. For example, the 5 children are split into a group of 3 and a group of 2.

Enrichment Activity: Number Display

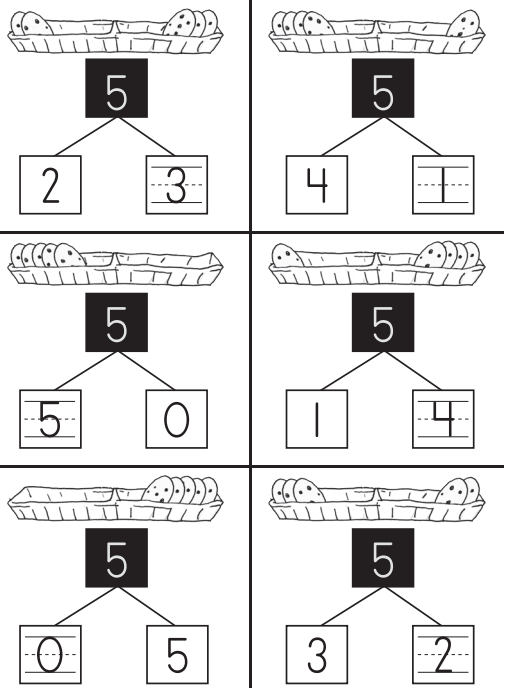
Have your child pick a number from 1 to 10 and create a display of real-life objects that show the number many different ways. For example, for the number 5, she might include 5 stuffed animals, 5 grains of rice, a clock set to 5:00, the number 5 circled on a calendar, a 5-dollar bill, and a die showing 5 dots.

Encourage her to use a variety of sizes in her display and point out how a given number can look quite big or quite small depending on what objects you use to model it. For example: **5 stuffed animals look a lot bigger than 5 grains of rice!**

Week 3 Answer Key

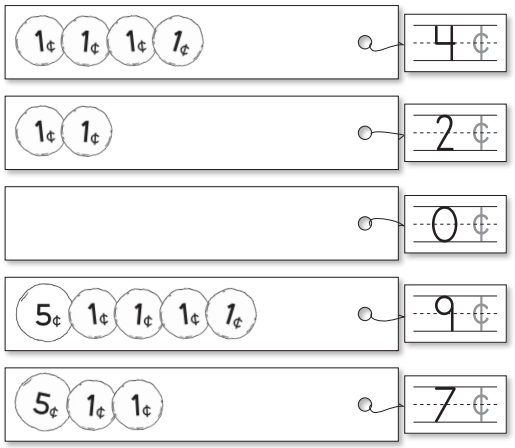
3.1A

Complete.

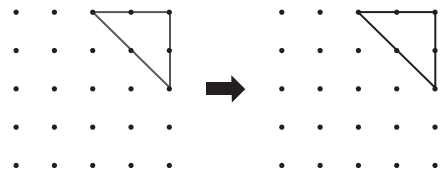


3.1B

Complete.

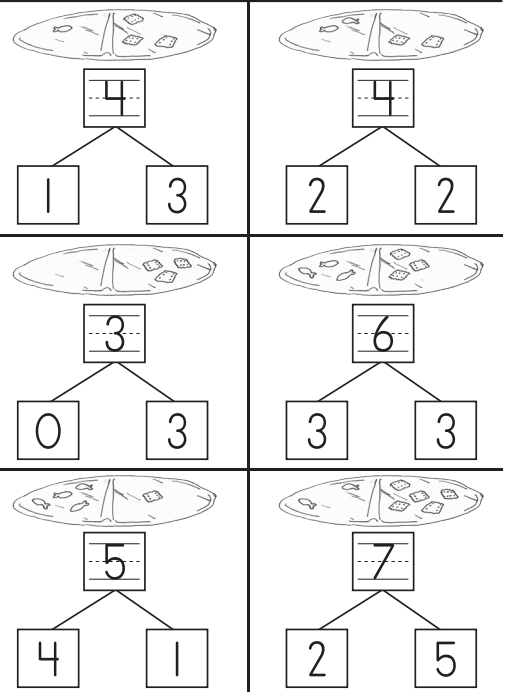


Copy the shape.



3.2A

Complete.



3.2B

Fill the outline with pattern blocks two different ways.
Write how many blocks you use.

____ blocks

____ blocks

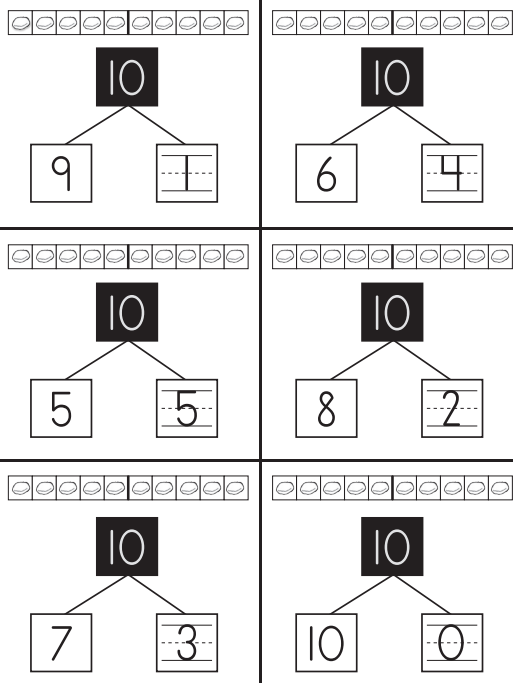
Many answers are possible.

Complete.

Week 3 Answer Key

3.3A

Complete.

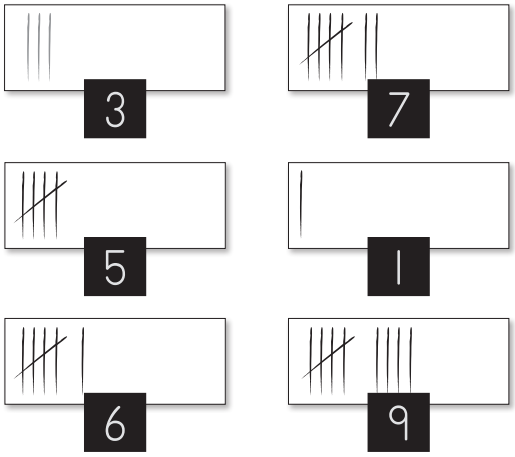


3.3B

Color the numbers you say when you count by 2s.

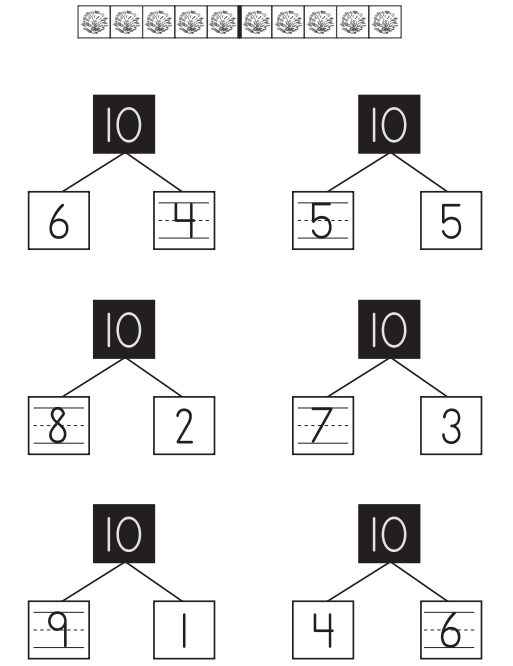
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

Draw tallies to match.



3.4A

Complete. Use the ten-frame at the top to help.

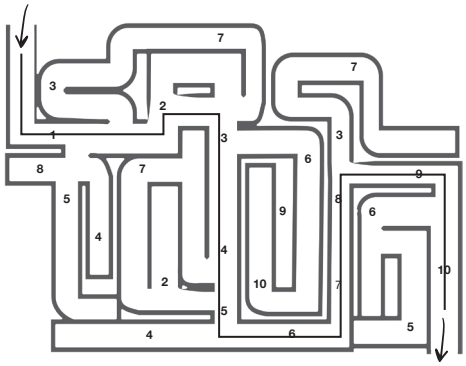


3.4B

Write the numbers that come before and after each number.

7	8	9
5	6	7
3	4	5
0	1	2

Complete the maze. Find the numbers in order from 1 to 10.



Unit 1 Checkpoint

What to Expect at the End of Unit 1

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

- Recognize the written numerals from 0 to 10 and write them mostly fluently. Many children will still reverse some of the numbers, especially 3s and 5s.
- Compare two numbers up to 10.
- Recognize quantities on the ten-frame without counting.
- Recognize up to 10 tallies without counting.
- Identify the value of small combinations of coins or paper bills. Many children will need to be reminded of the name or value of coins.
- Split small quantities into parts and join parts to find a total.

Is Your Child Ready to Move on?

In Unit 2, your child will learn the addition facts with sums up to 10 (such as 8 + 2 = 10, or 3 + 3 = 6). Before moving on to Unit 2, your child should already know how to:

- Recognize quantities from 0 to 10 on the ten-frame without counting.
- Read and write the numbers to 10 mostly automatically, even if she sometimes reverses them

Your child does not need memorize the combinations that equal 5 or 10 before moving on to Unit 2.

What to Do If Your Child Needs More Practice

If your child is having trouble with any of the above skills, spend a day or two practicing the corresponding review activities below before moving on to Unit 2. If your child did not use *Kindergarten Math with Confidence* last year, she likely will benefit from a little extra practice at recognizing quantities to 10 on the ten-frame.

Activities for recognizing quantities to 10 on the ten-frame

- Race to 10 (Lesson 2.1)
- Identify Combinations of "5 and Some More" (Review activity, Lesson 2.2)
- Ten-Frame Flash (Review activity, Lesson 3.3)

Activities for reading and writing numbers to 10

- War (0-10) (Lesson 1.2)
- Guess the Secret Number (1-10) (Lesson 1.3)
- Number Dictation (Review activity, Lesson 3.4)