CONTENTS

Introduction

Letter to Students	vi
Letter to Parents and Families	vii
What You'll See in Measuring Up Foundations	viii

Chapter 1 Numbers in Base Ten

1	Count, Read, and Write Numbers	1
2	Use Place Value	10
3	Compare Numbers	20

Chapter 2 Operations in Base Ten

4	Practice Addition and Subtraction Facts	30
5	Add and Subtract within 1000	40
6	Add within 1000 with Composing	50
7	Subtract within 1000 with Decomposing	60

Chapter 3 Algebraic Thinking

70
80
90

Chapter 4 Measurement, Time, and Money

11	Measure Length	100
12	Compare and Estimate Length	110
13	Tell Time to Five Minutes	120
14	Solve Word Problems Involving Measurements and Money	130

Chapter 5 Data and Graphs

15	Add and Subtract on a Number Line	140
16	Collect Data	150
17	Make and Explain Line Plots and Graphs	160

Chapter 6 Geometry

18 Identify Shapes and Solids	170
19 Divide Shapes into Parts	180
20 Describe and Compare Parts and Wholes	190

Lesson 1 Count, Read, and Write Numbers

Introduction

What Will Learn?

- How do you count, read, and write numbers to 1,000?
- How do you skip count by 5s, 10s, and 100s?

Did you know that there is more than one way to show and write numbers?



Break Down the Skills

You can show and write numbers in different ways.

Count images to show how many.



Write digits to show in standard form.

27

Write words to show in word form.

twenty-seven



Use this chart to help you write numbers in standard form and word form.

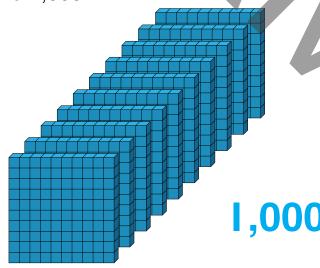
	one
2	two
3	three
4	four
5	five
6	six
7	seven
8	eight
9	nine

eleven			
twelve			
thirteen			
fourteen			
fifteen			
sixteen			
seventeen			
eighteen			
nineteen			

10	ten
20	twenty
30	thirty
40	forty
50	fifty
60	sixty
70	seventy
80	eighty
90	ninety

100	one hundred
200	two hundred
300	three hundred
400	four hundred
500	five hundred
600	six hundred
700	seven hundred
800	eight hundred
900	nine hundred
1,000	one thousand

Show numbers in three ways as you count up to 1,000.



The blue blocks are called hundred flats. Each counts as 100.



1,000 one thousand

Show the number **after 15** in three ways. Use circles as images.

Write in standard form.

Write in word form.

2 Level B Copying is prohibited.

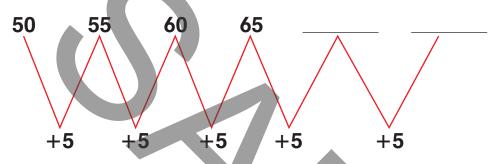
You can also **skip count**, which means to count in groups.

Write the missing numbers.

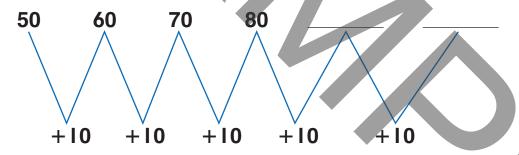
Start at any number and skip count forward!



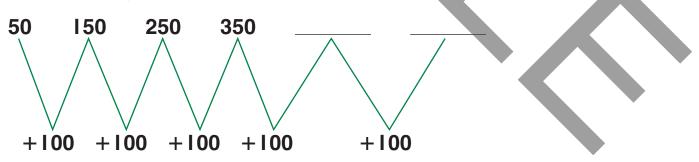
Skip count by 5s.



Skip count by 10s.



Skip count by 100s.



Guided Instruction

Each image shows a number of objects. Write the number in both standard form and word form.

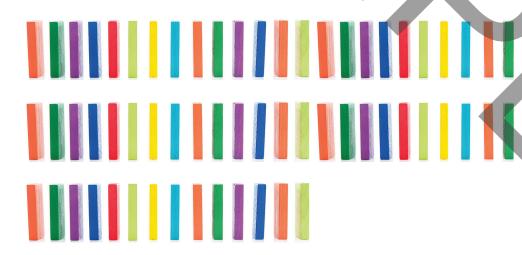


There are 5 blocks in each column. Skip count by 5s to count the blocks.



sta	nd	a	rd	fo	rm
SIU	ПU	u	ıu	IU	

word form

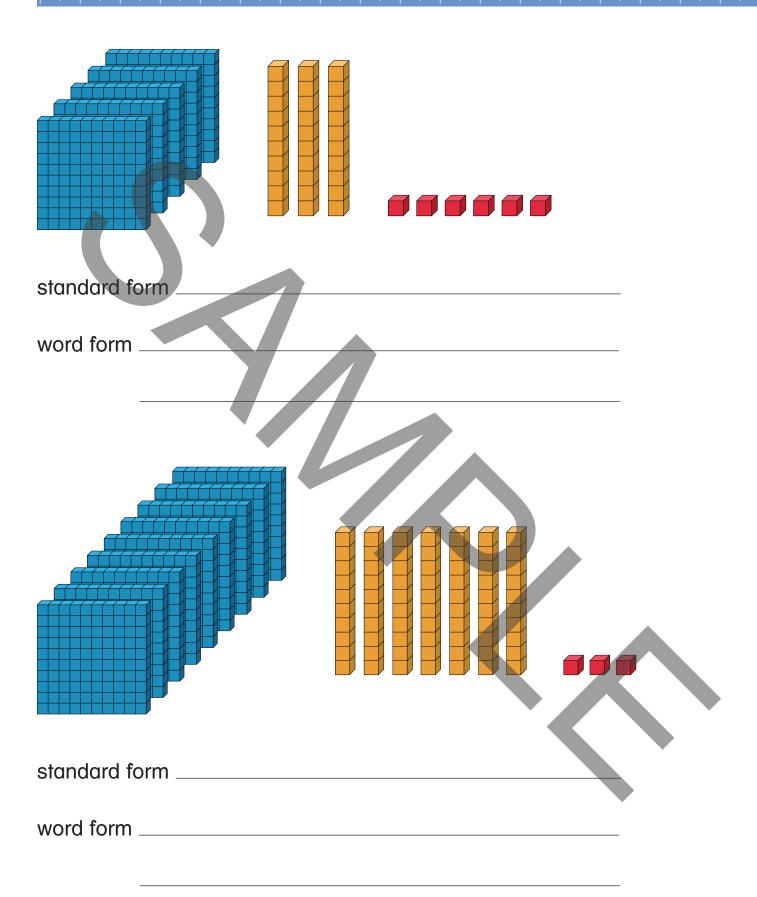


Circle groups of 10 to check your work.



standard form _____

word form _____



Fill in the numbers.

Skip count by 5s to 25. Then count by 1s.



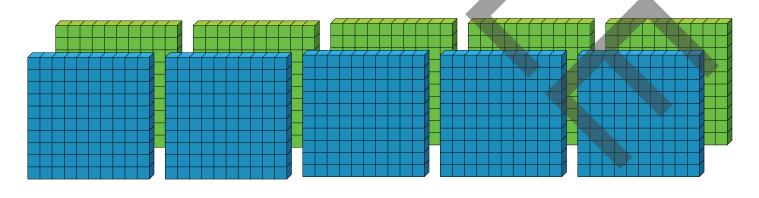
Skip count by 5s to 35. Then count by I.



Draw a line from the pencil to the number you write.

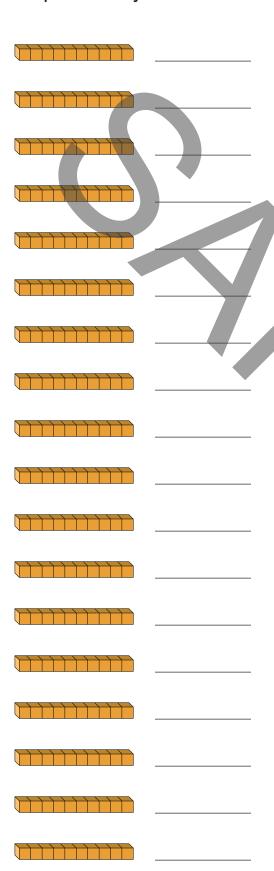


Skip count the blue blocks by 100s starting at 600,



6 Level B Copying is prohibited.

Skip count by 10s.



Check your work. After you finish writing the numbers, start back at the top and read the numbers.

Independent Practice

Practice 1

1 Choose the correct standard form.

Eight hundred seventy-nine

A 79

B 800

C 879

Standard form means to use digits and **word form** means to use words.



Choose the correct word form.

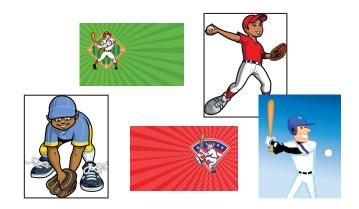
22 l

- **A** twenty-two and one
- B two hundred twenty-one
- C twenty twenty-one



Roberto has 3 packs of 10 baseball cards and 5 single cards.

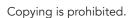




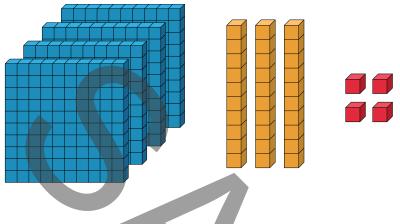
How many cards does Roberto have in all in standard form?

Practice 2

- Count by 5s starting at 200.
 - **A** 200, 205, 210, 215, 220, 225, 230, 235, 240
 - **B** 200, 210, 220, 230, 240, 250, 260, 270, 280
 - **C** 200, 300, 400, 500, 600, 700, 800, 900, 1,000



2 Write how many.



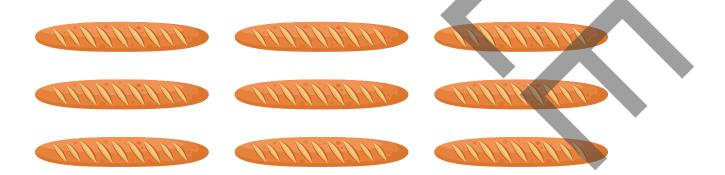
Remember, each blue block counts as 100 and each gold rod counts as 10.



standard form

word form

Elsie and her family cut 9 loaves of bread into 10 pieces each.

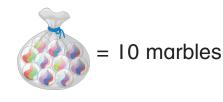


How many pieces of bread in all?

Exit Ticket

Emily and Ricardo have some marbles.





Here are their marbles.



















How many marbles do they have in all?

standard form _____

word form _____

TEACHER GUIDE

Lesson 1 Count, Read, and Write Numbers

At-a-Glance				
Learning Objectives	Review Skills			
• Count, read, and write numbers to 1,000.	• Count, read, and write numbers to 120.			
• Skip count by 5s, 10s, and 100s.	•Count by 2s, 5s, and 10s.			
Academic Vocabulary	Why Students May Struggle			
count digit standard form word form skip count	Students might struggle to skip count by different amounts and/or when starting at numbers other than 1.			

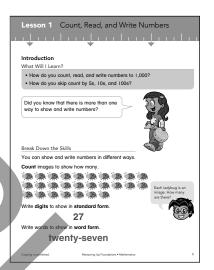
WHAT WILL I LEARN?

ACTIVATING PRIOR KNOWLEDGE

- Give students quantities of items up to 120 and have them count them.
- Ask five students to go to the board. In order, have these students take turns writing the numbers that the rest of the students say as the group slowly counts aloud to 120. In other words, the first student at the board writes 1, the second 2, and so on through 5. Then the first student writes 6, the second 7, and so on until all 120 numbers are on the board. Make sure the group counts slowly enough for the writers to keep up.
- As a group, have students count to 100 by 2s.
 - Ask volunteers to describe times when it would be helpful to count by 2s.
- As a group, have students count to 100 by 5s.
 - Ask volunteers to describe times when it would be helpful to count by 5s.
- As a group, have students count to 100 by 10s.
 - Ask volunteers to describe times when it would be helpful to count by 10s.

EXPLICIT INSTRUCTION

- Explain that there are different ways to show numbers. (Please note that expanded form is covered in Lesson 2.)
 - One way is to show images of objects, or a model, that can be counted. Have students count different groups of images around the room.

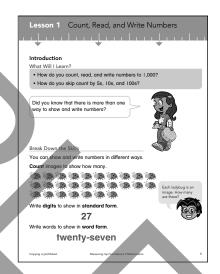


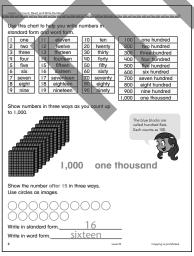
- Another way is as digits, known as standard form. Tell students that writing the numbers from 1 to 1,000 uses the same numbers and formats as writing the numbers from 1 to 120. Ask volunteers to go to the board and use standard form to write numbers you call out from 1 to 1,000.
- Another way is as words, which is called word form. Discuss that word form is the process
 of writing the number names that you use when you read a number aloud. Hold up, or
 write on the board, one number at a time and have one volunteer say the number while
 another volunteer writes the number in word form on the board.
- Next explain that skip counting is a way to count quickly by skipping groups of numbers and saying only one number for the group.
 - Point out that they have counted by 2s, 5s, and 10s, which are all examples of skip counting.
 - Explain that in this lesson they will skip count by those numbers as well as by 100.
 - As a group, count to 100 by 10s and to 1,000 by 100s.

BREAK DOWN THE SKILLS

TEACH ACADEMIC VOCABULARY

- Discuss that you can show and write numbers in different ways.
- Explain that one common way is to use images you can **count**.
 - · Have students count the ladybugs.
- Point out that a second common way is to use digits, which is called standard form.
 - Ask a volunteer why the use of digits might be called "standard form."
- Tell students that a third common way is to write the numbers in words, which is called word form.
- Review the number-spelling chart with students.
 - As you call out numbers, ask students to locate the word form of each number in the chart.
 - Discuss that every number can be shown with images, with digits, and in words. Point out that the big blue blocks are known as hundred flats and make up 100 little images each.
- Ask students to show the number that comes after 15 (16) using images (circles), digits, and words.
- Discuss that a quick way to count is to skip count, which
 means to count groups at a time. Have students look at the red
 zigzag lines.
 - Point out that the top shows skip counting by 5s starting at 50.



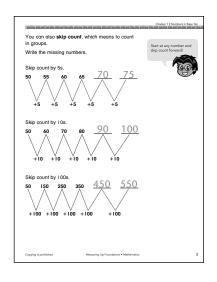


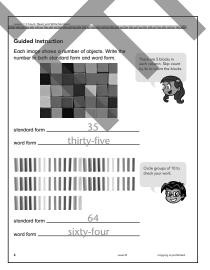
- Explain that the bottom shows that each count stands for 5 numbers, which for the first section is 51, 52, 53, 54, and 55.
- Ask if anyone knows what the +5 by the second section stands for.
- Have students fill in the last two numbers by counting on from 65 by 5s.
- · Next, have students look at the blue zigzag lines.
 - Explain that the blue lines show skip counting by 10s starting at 50.
 - Discuss that when you skip count by 10s, you count faster than when you skip count by 5s.
 - Ask if anyone knows what the +10 between 60 and 70 means.
 - Have students fill in the last two numbers by counting on from 80 by 10s.
- · Last, direct students' attention to the green zigzag lines.
 - Tell students that these lines show skip counting by 100s starting at 50.
 - Point out that skip counting by 100 is a faster way to count than skip counting by 5s or by 10s.
 - Ask if anyone knows what the +100 means between 250 and 350.
 - Have students fill in the last two numbers by counting on from 350 by 100s.
- If students struggle with using the zigzag lines to skip count, and if time allows, have students complete Copy Master 1 at the end of these teacher notes. To use the copy master, make a copy of the master and insert start at and skip count by numbers in the boxes at the top. By providing different starting numbers, the activity can be completed over and over and be a different activity each time.

GUIDED INSTRUCTION

Guide students through each activity. Read and discuss all the tips in conjunction with the related activities.

- Have students count the colored blocks and write the number in both standard form and word form.
 - Make sure they understand how easy it is to count the blocks by 5s because they can count each column.
 - Point out that they could also easily count the blocks by 10s by counting two columns at a time and then counting on by 5 from 30.
- Have students count the wooden sticks and write the number in both standard form and word form.
 - Encourage students to circle each group of 10 sticks.
 - Make sure students understand that they have to count on by 1s from 60.

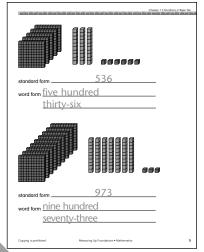




Common Errors

Some students might struggle to count the blocks or the sticks using skip counting. Ask these students to count one by one. Encourage them to touch a pencil tip to each item as they count.

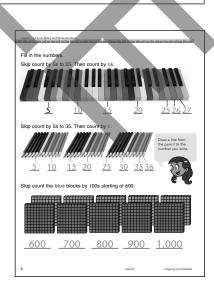
- Have students count the first set of math blocks and write the number in both standard form and word form.
 - Make sure they see that there are 5 hundred flats stacked up.
 - Point out that when there are several hundreds, they should first count by hundreds, and then count on by tens, and then count on by ones.
- Ask students to count the second set of math blocks and write the number in both standard form and word form.
 - Make sure students notice that there are 9 hundred flats stacked up.
 - Point out again that because there are several hundreds, they should first count by hundreds, and then count on by tens, and then count on by ones.



Common Errors

Some students might not understand how to count math blocks. Give them additional practice by having them complete Copy Master 2 at the end of these teacher notes and/or use actual math blocks. To use the copy master, make a copy of the master and insert a number in the box at the top. By providing different numbers, the activity can be completed over and over and be a different activity each time.

- Direct students' attention to the piano keys.
 - Ask them to touch each of the first five keys as they count them. When they get to five, point out that there is a little line there marking a group of five. Point out that there are little lines marking each group of five all across.
 - Draw their attention to the keys after the last little line.
 Explain that since there are fewer than five, they will have to count on by 1s at that point.
 - Have students fill in the blanks by skip counting by 5s and then counting on by 1s.



- · Next, have students look at the colored pencils.
 - Tell them to draw a short line at every fifth pencil.
 - Have them count by 5s and write the numbers on the blanks.
 - Make sure they understand that once they get to 35, they have to count on by 1s to 36.
- Ask students to now look at the blue hundred flats.
 - Point out that the green hundred flats in the background represent 100 through 500, so they are to start with 600.
 - Have them fill in the blanks by skip counting by 100s.

Common Errors

Students may not correctly place short lines to help them count the colored pencils by 5s. Help such students with this process by working one-on-one with them to count to five, make a mark, count to five again, make another mark, and so on.

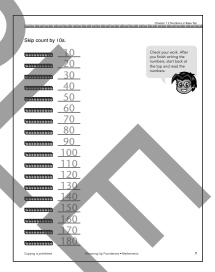
Common Errors

Students have trouble skip counting. Give them additional practice by having them complete Copy Master 3 at the end of these teacher notes. To use the copy master, make a copy of the master and insert start at and skip count by numbers in the boxes at the top. By providing different numbers, the activity can be completed over and over and be a different activity each time.

- Finally, have students look at the column of ten rods.
 - Have students count by 10s to fill in the answer blanks.

Common Errors

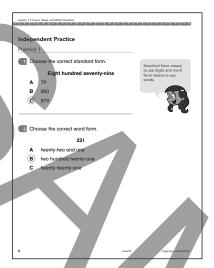
Students might skip count by 5s or 100s instead of by 10s. Help such students better follow directions by encouraging them to circle key details in the directions, such as "by 10s."

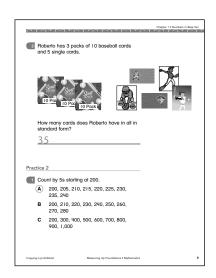


INDEPENDENT PRACTICE

Practice 1 Questions

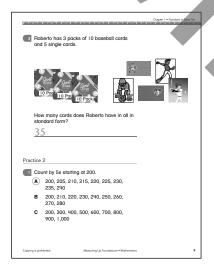
• Read the questions aloud and have students select or provide the answers independently. Review the answers.

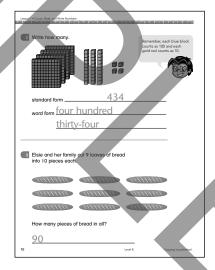




Practice 2 Questions

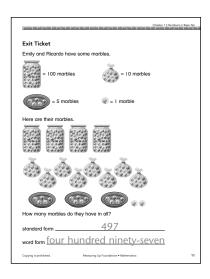
• Have students read the quesitons to themselves and select or provide the answers independently. Review the answers.





EXIT TICKET

 Ask students to fill in the blanks on the Exit Ticket. Make sure students understand that they have to use the key to complete the activity.



ADDITIONAL SUPPORT

SUPPORT FOR STRUGGLING LEARNERS

- To help students remember the difference between digits, standard form, and word form, assign them to come up with creative symbols for each. Have them break into groups of 3–4 and assign each group either digits or words. Tell each group to come up with a creative way to help other students remember the meaning of digits, standard form, or word form. Suggest that they be creative, such as using poems, songs, or drawings.
- Students may not know how to use hyphens in numbers. To get them familiar with the symbol, give them a list of ten numbers that should or should not have a hyphen. Go through the list with students, asking which ones should use a hyphen.

SUPPORT FOR ENGLISH LANGUAGE LEARNERS

- English learners might be unfamiliar with ladybugs if they do not have them in their home countries. Look up photos of actual ladybugs and use your fingers to show students how tiny they are.
- English learners might be unfamiliar with the American pastime of collecting baseball cards. Explain that individual professional baseball players have cards with their pictures on one side and their baseball stats on the other side. If possible, show students an actual baseball card and review the stats on the card.

EXTENSION ACTIVITIES

- Use this activity to help students understand the concepts of skip counting by 5s, 10s, and 100s.
 - Divide students into small groups.
 - Give each group 100 pennies, 20 nickels, and 10 dimes.
 - Tell each group to lay their pennies out in a straight line.
 - Then have each group place a nickel above the 5th penny and above every subsequent 5th penny.

- Then have each group place a dime above the second nickel and then above every other nickel.
- Have students count the pennies by 1s as they touch each penny.
- Have students count the pennies by 5s as they touch each nickel.
- Have students count the pennies by 10s as they touch each dime.
- Have students count all the different groups' pennies by 100s as they move from group to group.
- Use Copy Master 3 at the end of these teacher notes for each of the following problems/ activities. Ignore the directions on the copy master and use just the hundred chart.
 - Problem: Jacques is skip counting by 10s on a hundred chart. He starts at 6 and shades in each square he counts. Ava is skip counting by 10s on the same hundred chart. She starts at 2 and shades in each square she counts. Will they ever shade the same square? Explain that they will not shade the same square because they will shade two different columns.
 - Problem: Charlie is skip counting by 10s. He says, "64." What numbers will he say next?
 - Activity: Have students divide into groups of 3-4. Give each group a hundred chart. Tell them to practice counting the different columns as fast as they can and to identify the person in the group who can count the fastest without making a mistake. Have each group send the fastest person to the front of the class as its representative. Then have the group representatives compete with one another counting by 10s starting at the calledout numbers from 1 through 10. The competition can include some or all the numbers 1 through 10.

Name	Date
Start at Skip count by	Show the numbers on top.
At the bottom, show the skipped amou	unts. Sample: 50 55 60 65 70
Start at Skip count by	
Start at Skip count by	

Name	Date
Circle the blocks to equal	
	Write the number in word form.

10 Level B

Name		Date		
Start at	Skin count by	Circle the numbers		

I	2	3	4	5	6	7	8	9	10
II	12	13		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