

Algebra • Ways to Expand Numbers

LESSON AT A GLANCE

Lesson Objective Write two-digit numbers in expanded form.

Essential Question How can you write a two-digit number in different ways?

Materials MathBoard



Animated Math Models i Tools: Base-Ten Blocks M HMH Mega Math



Model and Draw Math Processes and Practices

Have children count the first set of base-ten models.

- How many tens are there? 8 How many ones? 7
- What number does 8 tens stand for? 80 What number does 7 ones stand for? 7
- What number is 80 plus 7? 87



Share and Show • Guided Practice

• Look at Exercise 1. Explain how you will write the number in different ways. First, I will write how many tens (3) and how many ones (5). Then, I will write 3 tens as 30 and 5 ones as 5, or 30 + 5. I will write the number with the 3 as the tens digit and the 5 as the ones digit, or 35.

This lesson builds on place value presented in Chapter 6 and prepares children for expanded notation taught in Grade 2. Name Algebra • Ways to Expand Numbers Essential Question How can you write a two-digit number in different ways? See Planning Guide • End-of-Year Resources for Lesson Plans. Model and Draw 8 tens and 7 ones There are different ways to think is the same as about a number. 80 plus 7. <u>8</u> tens <u>7</u> ones <u>80</u> + 7 \square Ø 00 $\square\square$ Share and Show MATH Write how many tens and ones. Write the number in two different ways. 2. Ι. \square 00 9*0*0 <u>3</u> tens <u>5</u> ones 5 tens 3 ones **50** + **3** 30 + 5 35 The 7 represents 70 because the number 72 is made up of 7 tens and 2 ones. Math Talk Does the 7 in this number show 7 or 70? Explain. one GRI Getting Ready for Grade 2

GR: Practice, p. GRP1	GR: Reteach, p. GRR1
Name Lesson 1	Lesson 1 Nome Releach
Algebra • Ways to Expand Numbers	Algebra • Ways to Expand Numbers
Write how many tens and ones. Write the number in two different ways.	You can write a number different ways. 日日日日 2
$\frac{5}{50 + 8} \text{ ones} \qquad \frac{6}{50 + 4} \text{ ones}$	<u>4</u> tens <u>5</u> ones
$\frac{500 + 5}{58}$ $\frac{500 + 1}{64}$	4 tens is the same as $\frac{40}{7}$.
	5 ones is the same as <u>5</u> .
Problem Solving (Ward	$\underline{40} + \underline{5}$ is the same as $\underline{45}$.
3. Draw the same number using only tens. Write how many tens and ones	Write how many tens and ones
Write the number in two different ways.	Write the number two different ways.
<u>5 tens 10 ones</u> <u>6 tens 0 ones</u>	<u>2</u> tens <u>6</u> ones <u>6</u> tens <u>3</u> ones
$\left(\begin{array}{c} \underline{50} + \underline{10} \\ \underline{60} \end{array}\right) = \left(\begin{array}{c} \underline{60} + \underline{0} \\ \underline{60} \end{array}\right)$	<u>20 + 6</u> <u>60 + 3</u>
	<u>_26</u> <u>_63</u>
Getting Ready for Grade 2 one GRPI	Reteach GRR1 Grade 1 O long/ten Mittle Facuur Publishing Congany



Have children complete Exercise 2. Use Math Talk to ensure that children understand that the 7 in the number 72 represents 7 tens or 70.

On Your Own

If children answered Exercises 1–2 correctly, assign Exercises 3–4. It is important that children understand the difference in value between the tens and ones digits.

 In Exercise 3, what number does the 7 stand for in 74? 70 How do you know?
 Possible answer: 7 is the digit in the tens place, so it stands for 7 tens. 7 tens is 70.

Problem Solving

UNLOCK THE PROBLEM Exercise 5 requires children to use higher order thinking skills. They need to understand that 10 ones is equivalent to 1 ten. It may be helpful to have children use models and match 10 ones next to 1 ten to show they are equivalent. Be sure children understand that they must replace the 10 ones with 1 ten and not just eliminate the ones.

- Why can you write this number using only tens? because I can trade the 10 ones for 1 ten
- What number did you show in two different ways? 70



Math Processes and Practices

Essential Question

How can you write a two-digit number in different ways? I can write a two-digit number by writing the number of tens and the number of ones, like 6 tens 7 ones. Then I can write the number of tens as a number and the number of ones as another number, like 60 + 7. Then I can write the number with 6 as the tens digit and 7 as the ones digit, like 67.

Math Journal

Draw quick pictures to show 9 tens 2 ones. Write the number in three different ways.



Identify Place Value

LESSON AT A GLANCE

Lesson Objective

Identify how many hundreds, tens, and ones there are in numbers to 199.

Essential Question

How can you use place value to understand the value of a number?

Materials

MathBoard, base-ten blocks



Animated Math Models *i i* Tools: Base-Ten Blocks M HMH Mega Math



Model and Draw Math Processes and Practices

Work through the model with children. Point out that the chart explains what each digit stands for in the number 125.

Focus on the base-ten blocks and the quick pictures. Match them with their digits in the place value chart as you read what each digit in 125 means.

• What does the place value chart show? how many hundreds, tens, and ones there are in the number 125



Share and Show • Guided Practice

- How will you show each hundred? I will trace to draw the square.
- children for identifying hundreds, tens, and ones taught in Grade 2. Name **Identify Place Value** Essential Question How can you use place value to understand the value of a number? **Model and Draw** The I in I25 means I hundred. 00000 The 2 in I25 means 2 tens. The **5** in 12**5** means 5 ones. Draw 🗌 for hundreds tens ones 000000 Draw for 125 5 Draw , for . MATH Share and Show Use your MathBoard and 0 01111111 to show the number. THINK 106 has no tens. Draw to complete the quick picture. Write how many hundreds, tens, and ones. ١. hundreds tens ones 106 0 0 6 0 0 0 00 The I in 187 means I hundred. **Math Talk** How is the 1 in 187 different The I in 781 means I one. from the I in 78I? three **GR3** Getting Ready for Grade 2 GR: Reteach, p. GRR2 **GR: Practice, p. GRP2** Lesson 2 Reteach Identify Place Value **Identify Place Value** This shows the number 136 Use your MathBoard and Draw to complete the quick picture. Write how many hundreds, tens, and ones hundreds tens ones 136 has <u>hundred</u> tens <u>6</u> ones 163 6 Write the numbers in the table tens ones 2. undreds tens ones 3 -6 Draw to show 136. 128 2 8 Draw 🗌 for 📕 3 Draw for hundreds tens ones 154 Draw a for . 5 - 4 Use your MathBoard and Problem Solving World to show the number. Trace to draw the quick picture. Write how many hundreds, tens, and ones, Circle your answer 5. I have 0 ones, 5 tens. and 4. I have I hundred, 2 tens. Т. Check children's I hundred. What r hundreds tens ones and 5 ones. What number am I? drawinas 128 am I? 2 8 100 (125) 105 (150) 25 103

This lesson builds on identifying tens and ones presented in Chapter 6 and prepares

*GR – Getting Ready Lessons and Resources (www.thinkcentral.com)

ing Ready for Grade 2

two GRP2

GRR2

Grade



GR4 four

• How will you show tens and ones? I will draw a line for each ten and a circle for each one.

Have children complete Exercise 1.

Use Math Talk to check that children understand that 1 has a different value in each number because it is in a different place.

🕨 On Your Own

If children answered Exercise 1 correctly, assign Exercises 2–4. Point out that when writing a three-digit number with either no tens or no ones, children must write 0 in the correct place.

- How many hundreds are in the number 170? 1
- What does the 7 in the number 170 mean? There are 7 tens in the number 170.
- What does the 0 in the number 170 mean? There are no ones in the number 170.

Problem Solving

UNLOCK THE PROBLEM Exercises 5 and 6 require children to attend to precision. Remind children that the value of a number is determined by the order of the digits.

Go Deeper

• The numbers 103, 130, and 301 all have the same digits. Why are the numbers different?

Each digit has a different value because it is in a different place. The number of hundreds, tens, and ones is different in each number.



Math Processes and Practices

Essential Question

How can you use place value to understand the value of a number? Possible answers: I can tell the value of each digit based on its place in the number. I can tell if the digit means hundreds, tens, or ones.

Math Journal

WRITE Math

Tell how many hundreds, tens, and ones are in the number 154.

LESSON 3

Use Place Value to Compare Numbers

LESSON AT A GLANCE

Lesson Objective

Use <, >, and = to compare numbers.

Essential Question

How can you use place value to compare two numbers?

Materials

MathBoard



🚾 Animated Math Models *i* Tools: Base-Ten Blocks MM HMH Mega Math



Model and Draw Math Processes and Practices

Have children tell what it means to compare two numbers.

• What words can you use to compare two numbers? I can say which number is greater than, less than, or equal to another number.

Point out that knowing the value of each digit is necessary to compare two numbers.

Compare 134 and 125, focusing on comparing the hundreds first and then the tens.

• Suppose the hundreds digit and tens digit in two numbers are the same. How can you compare the numbers? by comparing the ones

This lesson builds on comparing two-digit numbers presented in Chapter 7 and prepares children for comparing three-digit numbers taught in Grade 2. Name Use Place Value to Compare Numbers Essential Question How can you use place value to compare two numbers? I want to eat **Model and Draw** the greater number. Use these symbols to compare numbers. 45 < 46> is greater than 46 45 is less than 46. < is less than = is equal to Compare 134 and 125. First compare hundreds. One hundred is equal to one hundred. |00 = |00|If the hundreds are equal, compare the tens. 30 is greater than 20. 134 > 125 Share and Show Write the numbers and compare. Write >, <,or =. Ι. 55 >138 Compare the numbers using >, <, or =. **3.** 187 (>) 168 **4.** 165 (> 159 141 **5.** 127 Yes. The hundreds and tens are the same so compare the ones. 3 ones is less than 7 ones, so 173 is less than 177. Math Talk Compare 173 and 177. Did you have to compare all the digits? Why or why not? five GR5 Getting Ready for Grade 2 **GR: Practice, p. GRP3 GR: Reteach, p. GRR3** Use Place Value to Compare Numbers Use Place Value to Compare Numbers Write the numbers, Compare, Write >, <, or = means is greater that You can use models and < means is less than symbols to compare numbers. means is equal to Use the model to compare 142 and 147. 172 (<) 176 <u>143</u> > <u>128</u> Compare the numbers using <. or = 5. 195 < 199 **3**. 162 (=) 162 4. 154 > 148 Step I Compare the hundreds I hundred = I hundred **6**. 133 < 7. 129 > 126 8. 141 = 141 Step 2 Compare the tens. 4 tens = 4 tens**9.** | | 9 < | 25 **10.** 173 (=) 173 II. 187 <</ Step 3 Compare the ones. 2 ones \leq 7 ones 12. | 53 (=) | 53 13. 191 >178 14. 144 < 153 142 🔿 147 So. 142 is less than 147. Use if you need to. Problem Solving (Real) Write the numbers and cor Solve Josh is thinking of a number between 100 and 199. It has I hundred, 4 tens, and



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168 > 166

GRR3

Grade

Compare the numbers using >, <, or = You may wish to make a model to check.

2. |5| = |5|

Draw or write to explain Check children's work



Share and Show • Guided Practice

• In Exercise 1, is 159 less than, greater than, or equal to 155? greater than

Use Math Talk to check that children understand that to compare these numbers they must compare the ones because the hundreds and tens digits are the same.

On Your Own

If children answered Exercises 1–5 correctly, assign Exercises 6–22. It is important that children understand that they must always compare the digits one place at a time.

 What is always the first step in comparing numbers with hundreds, tens, and ones? Compare the hundreds.

Problem Solving



UNLOCK THE PROBLEM Exercise 23 requires children to make sense of problems. Children will first need to compare the hundreds.

- How can you tell how many hundreds each of the numbers will have? Both numbers are between 100 and 199. The numbers from 100 through 199 have 1 in the hundreds place. So, both numbers have 1 in the hundreds place.
- What will you compare next? the tens
- Who is thinking of the greater number? Kim Why? because 6 tens is greater than 3 tens

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you use place value to compare two numbers? I can compare the value of each digit, one at a time, starting with the hundreds to see which number is greater than, less than, or equal to the other. If the number of hundreds is the same, I can compare the tens. If the hundreds and tens are the same, I can compare the ones.

Math Journal

WRITE Math

Use the numbers 158 and 185. Compare the numbers using >, <, or =.

Getting Ready for Grade 2 Lesson 3 PG55

LESSON 4

Algebra: Addition Function Tables

LESSON AT A GLANCE

Lesson Objective

Complete an addition function table.

Essential Question

How can you follow a rule to complete an addition function table?

Materials

MathBoard



Mimated Math Models



Model and Draw Math Processes and Practices

Focus on the Add 9 function table.

- What does the rule "Add 9" tell you to do? Add 9 to each number in the left column.
- What addition sentences can help you complete the function table? 7 + 9 = 16; 8 + 9 = 17; 9 + 9 = 18
- Why do you think this is called an addition function table? because the rule says add

Discuss how the function table works including how following the rule results in a pattern across each row.

• What pattern do you see when you complete this table? Each number in the right column is 9 more than the number in the same row in the left column.

This lesson builds on addition facts presented in Chapter 3 and prepares children for addition skills and strategies taught in Grade 2.

Name **Algebra • Addition Function Tables** Essential Question How can you follow a rule to complete an addition function table? Model and Draw Add 9 The rule is Add 9. 7 6 Add 9 to each number. 8 8 9 **Share and Show** MATH, BOARD Follow a rule to complete the table. Ι. 2. 3. Add 5 Add 3 Add 4 7 5 10 10 6 10 7 12 8 11 7 н 9 8 12 9 14 12 4. 5. 6. Add 8 Add 7 Add 6 5 6 12 13 6 13 8 14 7 15 8 15 9 9 17 9 15 16 The rule is Add 8, so in each row the number on the right is 8 more Math Talk Look at Exercise 4. How does than the number on the left the rule help you see a pattern? nine **GR9** Getting Ready for Grade 2 **GR: Practice, p. GRP4 GR: Reteach, p. GRR4** Lesson 4 Reteach Algebra • Addition Function Tables Algebra • Addition Function Tables Follow a rule to complete the table Follow the rule to complete a function table Add 4 Add 6 Add 9 6 10 3 9 6 15 At the top of the table is a rule. Add 7 7 11 4 10 7 16 8 12 5 11 8 17 12 5 The rule is Add 7 Add 5 Add 7 Add 3 6 13 5 **12** 2 5 5 10 14 To complete the table, <u>Add</u>7 7 6 **I3** 4 7 6 11 to each number on the left. 8 15 6 9 7 12 8 13 9 16 8 11 Follow a rule to complete the table Problem Solving World Add 2 Add 8 Add 5 Solve. Complete the table. 7. Kirk is 9 years old. 12 7 9 4 9 4 Sasha is 7 years old. Kirk 9 14 Pam is 5 years old. 13 8 10 6 н 5 Sasha 7 12 How old will each child be in 5 years? 5 13 6 14 Pam 10 9 H. 8

PG56 Planning Guide

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Getting Ready for Grade 2

four GRP4

GRR4

Grade

On Your Own

Follow a rule to complete the table.





7

9

10

12

9.	Ad	d 5
	7	12
	8	13
	9	14
12.	Ad	d 6
	6	12
	7	13

8

9

14

15

Problem Solving (Real World

13. Solve. Complete the table.				
Tom is 8 years old. Tulia is 7 years old	[Ad	d 4	
Carla is 4 years old.	Tom	8	12	
How old will each child	Julie	7		
be in 4 years?	Carla	4	8	
	-			

100

TAKE HOME ACTIVITY • Copy Exercise 12 and change the numbers in the left column to 9, 7, 5, and 3. Have your child complete the table and explain how he or she used a rule to solve the problem.

GRI0 ten



Share and Show • Guided Practice

Check that children are following the rule for each table as they complete Exercises 1–6.

• How do you know what to do to complete each table? I read the rule at the top and add that number to each number in left column of the table.

Use Math Talk to help children see that each number in the right column is 8 more than the number in the same row in the left column.

On Your Own

If children answered Exercises 1–6 correctly, assign Exercises 7–12.

- How are the function tables alike? They all have addition rules.
- How are the function tables different? Each rule has a different number to add.

Problem Solving



UNLOCK THE PROBLEM Exercise 13 requires children to use information from the problem to establish a rule for a function table and to follow the rule to complete the table.

- What information do you know from reading the problem? I know how old Tom, Julie, and Carla are.
- What did you do to solve the problem? I added 4 to each number. Explain why. I wanted to know how old each child will be in 4 years and that means adding 4 to each child's age now.



Math Processes and Practices

Essential Question

How can you follow a rule to complete an addition function table? I can add the number shown in the rule to each number in the left column of the table and then write the sum in the right column.

Math Journal

What might be the rule for the addition function table if there is a 4 in the left column and an 8 in the right column?

LESSON 5

Algebra • Subtraction Function Tables

LESSON AT A GLANCE

Lesson Objective Complete a subtraction function table.

Essential Question

How can you follow a rule to complete a subtraction function table?

Materials

MathBoard



Mimated Math Models

TEACH and TALK C Animated Math Models

Model and Draw (Math Processes and Practices)

Focus on the Subtract 7 function table.

- What does the rule "Subtract 7" tell you to do? Subtract 7 from each number in the left column.
- What number sentences can help you complete the function table? 14 7 = 7; 15 - 7 = 8; 16 - 7 = 9
- Why do you think this is called a subtraction function table? because the rule says subtract

Discuss how the function table works. Guide children to see that the rule makes a pattern across each row.

• What pattern do you see when you complete this table? Each number in the right column is 7 less than the number in the same row in the left column.

This lesson builds on subtraction facts presented in Chapter 4 and prepares children for applying subtraction skills and strategies taught in Grade 2.



On Your Own

Follow a rule to complete the table.



GRI2 twelve

Share and Show • Guided Practice

Check that children are following the rule for each table as they complete Exercises 1–6.

 Which numbers would change if you changed the rule for the function table in **Exercise 1?** the numbers in the right column

Use Math Talk to focus on similarities and differences in Exercises 2 and 3.

On Your Own

If children answered Exercises 1–6 correctly, assign Exercises 7-12.

• Change the rule in Exercise 12. How does the table change? Answers will vary.

Red Problem Solving

Vol

UNLOCK THE PROBLEM To complete Exercise 13, children have to use information from the problem to establish a rule for a function table and follow the rule to complete the table.

- What did you do to solve the problem? I subtracted 2 from each number in the left column. Explain why. I wanted to know how many cookies each child will have left if he or she eats 2 cookies and that means subtracting 2 from the number of cookies each child began with.
- How many cookies will Seamus have if he eats 2 cookies? 0

SUMMARIZE

Math Processes and Practices

Essential Question

How can you follow a rule to complete a subtraction function table? I can subtract the number shown in the rule from each number in the left column of the table and then write how many are left in the right column.

Math Journal

WRITE) Math

What might be the rule for a subtraction function table if there is a 16 in the left column and a 7 in the right column?

LESSON 6

Algebra • Follow the Rule

LESSON AT A GLANCE

Lesson Objective

Complete addition and subtraction function tables.

Essential Question

How can you follow a rule to complete an addition or subtraction function table?

Materials

MathBoard



Mimated Math Models



Model and Draw Math Processes and Practices

Compare the function tables at the top of the page.

- What is the rule for the function table on the left? add 1 on the right? subtract 1
- How are the two function tables alike? Both have the same numbers in the left column. How are they different? different rules: add 1 and subtract 1

Complete the tables together.

This lesson builds on addition and subtraction facts presented in Chapter 5 and prepares children for patterns and relationships taught in Grade 2.

Algebra • Follow the Rule

Name

Essential Question How can you follow a rule to complete an addition or subtraction function table?

Model	and Dr	aw		
The rule for some tables is to add. For other tables the	Ad	d I	Subt	ract l
rule is to subtract.	2	AND	2	
	4	5	4	3
	6	7	6	5
	8	9	8	7



Follow a rule to complete the table.

Ι.	Ad	d 2	2
	10	12	
	9	11	
	8	10	
	7	9	

Getting Ready for Grade 2

3.	Subtr	act l
	3	2
	4	3
	7	6
	9	8

The rule is Add 2, so in each row the number on the right is 2 more than the number on the left.

Subtract 2

8

7

6

5

10

9

8

7

Math Talk What is the rule for the pattern in Exercise I?

thirteen **GRI3**

	GR	Pra	actice, p.	GRI	P6	GR: Reteach, p. GRR6
lame _					Lesson 6	Lesse 6 Name Reteach
Alge	bra • Follow t	he Ru	le			Algebra • Follow the Rule
ollo	w a rule to com	plete t	he table.			Read the rule at the top of each table.
ь [Add 4	2.	Subtract 2	3.	Subtract 5	Circle the table that tells you to add.
Ī	6 10		7 5	1	5 0	Then complete both tables.
[7 11		8 6]	7 2	
[8 12		9 7]	9 4	Add I Subtract I
	9 13		10 <mark>8</mark>]	II <mark>6</mark>	
ŀ. [Subtract 4	5.	Add 7	6.	Add 3	
[6 2		10 17]	6 <mark>9</mark>	
	8 4		9 16		5 <mark>8</mark>	
ļ	10 <mark>6</mark>		8 I5		4 7	Entre a la la constitución de la la la
L	12 8		7 14		3 6	
						1. Add 3 2. Subtract 3
Pro	oblem Solving	(Real World)			10 13 10 7
Find	d the rule. Com	plete t	he table.]	9 12 9 6
7.	Add 2		8.	Subt	ract I	
	4 (5		7	6	8 11 8 5
	<mark>6</mark> 8	3		8	7	7 10 7 4
	8 I	0		10	9	
	10 1	2		12		
Setting	Ready for Grade 2				six GRP6	Retract GRR6 Grade 1

On Your Own

Follow a rule to complete the table.

4.	Ad	d 5	5.	Subtr	act 5	6.	Subtr	ract l
	7	12		7	2		8	7
	8	13		8	3		9	8
	9	14		9	4			10
	10	15		10	5		13	12
7.	Subtr	act 3	8.	Ad	d 4	9.	Ad	d 6
	5	2		6	10		9	15
	7	4		7			8	14
	9	6		8	12		7	13
		8		9	13		6	12
Pr	oblem S	Solving	Real)	Ja Ja			

Ad	d 3
3	6
5	8
7	10
9	12

TAKE HOME ACTIVITY • Copy the table for Exercise 9. Change the rule to Subtract 3. Have your child complete the table.

GRI4 fourteen

Share and Show • Guided Practice

Check that children are following the correct rule.

• Look at Exercises 1–3. How do you know whether to add or subtract to complete each table? by looking at the rule at the top of the table

Have children complete Exercises 1-3.

Use Math Talk to have children find patterns by comparing the two columns in a function table and by comparing rows.

🕨 On Your Own

If children answered Exercises 1–3 correctly, assign Exercises 4–9.

Problem Solving

UNLOCK THE PROBLEM Exercise 10 requires children to look for and make use of structure in mathematics. They need to first determine the relationship between the given numbers in a function table in order to establish the rule for the function table. Then children will follow the rule to complete the table.

- Look at the 7 and 10 in the table. Would you add or subtract to get from 7 to 10? add How many would you add? 3
- What is the rule for the table? add 3

Have children complete the table using the rule.



Math Processes and Practices

Essential Question

How can you follow a rule to complete an addition or subtraction function table? I can look at the rule that tells how many to add or subtract. I can follow the rule by adding or subtracting the number shown to each number in the left column of the table. I can write my answer in the right column in that row.

Math Journal

WRITE Math

How do you know if the rule for a function table is to add or subtract?

LESSON 7

Add 3 Numbers

LESSON AT A GLANCE

Lesson Objective Choose a strategy to add 3 numbers.

Essential Question How can you choose a strategy to help add 3 numbers?

Materials MathBoard



🚾 Animated Math Models MM HMH Mega Math



Model and Draw Math Processes and Practices

Use the example to discuss strategies for adding 3 numbers.

- How do you use the strategy make a 10? • First, I add 2 + 8 to make 10. Then I add on 6.
- How do you use doubles? First, I add 8 + 8. Then I add on 4.
- How do you use the strategy *count on*? First, I count on 3 from 6 to get 9. Then I add on 8.
- How do you know which strategy to **choose?** I look at the addends to see what is possible. If I have two numbers whose sum is 10, I can make a ten. If I have two of the same number, I can use doubles. If I have 1, 2, or 3 as an addend, I can count on.

presented in Chapter 3 and prepares children for fluent addition within 100 taught in Grade 2. Name Add 3 Numbers Essential Question How can you choose a strategy to help add 3 numbers? Model and Draw When you add 3 numbers, you can add in any order. Using a strategy can help. Make a 10. Use doubles. Use count on. 2 8 9 710 716 6 + 8 + 4 MATH BOARD Share and Show Use strategies to find the sums. Circle any strategy you use. Possible answers shown. 4 make a 10 2. 9 (make a 10 **3.** 4 (make a 10 Ι. 6 doubles 7 (doubles 8 doubles ± 2 count on +7 count on + 1 count on 18 18 12 (make a 10 5. 6 make a 10 6. 6 (make a 10 4. 8 4 doubles 3 doubles 7 doubles count on + 2 + 4 count on + 6 count on 15 17 14 Possible answer: I added 6 + 4 to make a 10. Then I added 10 + 7to find the sum, 17. Math Talk Explain why you used the

make a 10 strategy to solve Exercise 6.

Getting Ready for Grade 2

fifteen GRI5

This lesson builds on addition of 3 numbers

GR: Practice, p. GRP7		GR: Reteach, p. GRR7
Name Lesso	on 7	Nome Reteach
Add 3 Numbers		Add 3 Numbers
Use strategies to find the sums. Circle any strategy you use. Possible answers shown.		Using a strategy can help you add 2 numbers.
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ake a 10 publes runt on	Start with 2 numbers that make a 10. Start with 2 numbers that will bely you to make doubles. Start with 2 numbers to count on.
$\begin{array}{c} \textbf{4. 3} \\ \textbf{4} \\ \textbf{4} \\ \textbf{4} \\ \textbf{6} \\ \textbf{14} \\ \textbf{6} \\ \textbf{count on} \end{array} \qquad \begin{array}{c} \textbf{5. 2} \\ \textbf{7} \\ \textbf{6} \\ \textbf{8} \\ \textbf{doubles} \\ \textbf{17} \\ \textbf{count on} \end{array} \qquad \begin{array}{c} \textbf{6. 5} \\ \textbf{6} \\ \textbf{4} \\ \textbf{4} \\ \textbf{6} \\ \textbf{4} \\ \textbf{6} \\ \textbf{14} \\ \textbf{6} $	ake a 10 publes unt on	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
7. 7 make a 10 5 doubles +2 doubles 14 (count on) 8. 6 make a 10 3 doubles +6 doubles 15 count on 15 count o	ake a 10 publes unt on	Start with 2 numbers. Trace the lines. Circle the strategy you use. Possible answers Write the numbers. Find the sum. shown.
Problem Solving (1) 10. Andy has 5 red marbles, 4 blue marbles, and		$\begin{array}{c c} 1. & 7 & & \\ & 4 & \\ & + & \\ & + & \\ \hline 14 & \\ \hline 14 & \\ \hline \end{array} \begin{array}{c} 10 & \\ make \ a \ 10 \\ make \ a \ 10 \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ - & \\ \hline 12 \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \hline \end{array} \begin{array}{c} 1 & \\ 1 & \\ \end{array} \begin{array}{c} 1 & \\ 1 & \\ \end{array} \end{array}$
6 yellow marbles. How many marbles does he have?	= 15 marbles	3. 7 5 +1 $+5$ doubles 13 +6 $+5$ doubles +6 $+5$ doubles -5 -5 -5 -5 -5 -5 -5 -5
Getting Ready for Grade 2	seven GRP7	Refease RGRR7 Grade 1 Original Million Research Halding Company





Share and Show • Guided Practice

 Look at the addends in Exercise 1. What strategy could you use to find the sum?
 Why? I can use doubles because there are two 7s.

Use Math Talk to check children's understanding of using strategies to help them add 3 numbers.

On Your Own

If children complete Exercises 1–6 correctly, assign Exercises 7–15. Children should understand they can use any strategy they choose as long as it works for the particular problem.

 In Exercise 10, can you use doubles to help you add? Why or why not? No.
 Possible answer: There are not two addends that are the same number.

Problem Solving



UNLOCK THE PROBLEM Children can solve the word problem in Exercise 16 by using a strategy to add the 3 numbers.

• Did you use a strategy to add? Explain. Yes. I made a ten by adding 7 + 3. Then I added 10 + 4 to find the sum, 14.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you choose a strategy to help add 3 numbers? I look at the addends to see which strategy will work. I might be able to make a ten, use doubles, or count on.





Use a strategy to add 1 + 8 + 9. Circle the two numbers you added first and tell what strategy you used.

LESSON 8

Add a One-Digit Number to a Two-Digit Number

LESSON AT A GLANCE

Lesson Objective

Find the sum of a 1-digit number and a 2-digit number.

Essential Question

How can you find the sum of a 1-digit number and a 2-digit number?

Materials

MathBoard



Animated Math Models

TEACH and TALK

Model and Draw Math Processes and Practices

Have children look at the addends in the sample addition problem.

- How many tens and ones are in the addends? 54 is 5 tens and 4 ones. 2 is 2 ones.
- How many ones are there in all, and how do you know? There are 6 ones. I add 4 ones and 2 ones.
- How many tens are there in all? 5 tens
- So what is the sum? 56

This lesson builds on addition presented in Chapter 8 and prepares children for fluent addition within 100 taught in Grade 2.

Add a One-Digit Number to a Two-Digit Number

Name

Essential Question How can you find the sum of a I-digit number and a 2-digit number?

То	find the sum, find	d how many ten	s and ones in a
	5 ten	s 4 ones	54
	+	2 ones	+ 2
	5 ten		
	ICI		^v ag¢ ² ♥ <u>a</u> ♥
Share and	Show MATH		
	BOARD		
Add. Write th	e sum.		
ı. 72	2 . 24	3. 41	4. 56
+ 3	+ 1	+ 4	+ 2
75	25	45	58
5. 14	6 . 33	7. 61	8. 93
+ 4	+ 6	+ 8	+ 4
18	39	69	97
9. 31		11. 40	12. 35
+ 6	+ /	+ 4	+3
37	I 8	44	38

Math Talk How did you find the total number of ones in Exercise I?

seventeen GRI7



Getting Ready for Grade 2

GR: Reteach, p. GRR8 Lesson 8 Reteach Add a One-Digit Number to a Two-Digit Number Add to find how many tens and ones in all Write the sum There are 4 tens. There are 5 ones. The sum is 45. 43 000 + 2 ê Add. Write the su One: 1. 32 **2**. 12 ŝ $\frac{+4}{36}$ $\frac{+7}{19}$ 00000 0000 **3.** 53 4. 47 000 + 2 + 5 58 00000 5. 68 Tens Ones **6**. 95 + 3
98 0000 + 1 8 GRR8 Grade

|--|

Add. Write the sum.

13.	22	14. 53	15 . 46	16. 7 I
	+ 7	+ 3	+ 2	+ 8
	29	56	48	79
17.	84	18. 93	19. 16	20 . 37
	+ 5	<u>+ 4</u>	+ 3	<u>+ I</u>
	89	97	19	38
21.	62	22 . 23	23 . 82	24. 44
	+ 2	+ 5	+ 2	+ 4
	64	28	84	48

TAKE HOME ACTIVITY • Tell your child you had 12 pennies and then you got 5 more. Have your child add to find how many pennies in all.

Problem Solving (World

25. There are 23 children in the first grade class. Then 3 more children join the class. How many children are there now?

26 children

100

GRI8 eighteen



Share and Show • Guided Practice

• Look at Exercise 2. How many tens are there in all? How many ones are there in all? 2 tens; 5 ones

Use Math Talk to check children's understanding of how to find the total number of ones when adding a 1-digit number to a 2-digit number.

🕨 On Your Own

If children complete Exercises 1–12 correctly, assign Exercises 13–24. Have children draw a quick picture to show the numbers in Exercise 13.

• What does your quick picture show? 22 is 2 tens and 2 ones. 7 is 7 ones. There are 2 tens and 9 ones in all.

Problem Solving work

UNLOCK THE PROBLEM Read aloud the word problem in Exercise 25.

• Will you add or subtract to find the number of children? Explain. I will add because the class has 23 children plus 3 more.



Math Processes and Practices

Essential Question

How can you find the sum of a 1-digit number and a 2-digit number? Possible answer: I can find how many tens and ones there are altogether in both addends.

Math Journal

WRITE Math

Use words or pictures to tell how to use tens and ones to add 14 + 5.

LESSON 9

Add Two-Digit **Numbers**

LESSON AT A GLANCE

Name

Add Two-Digit Numbers

Essential Question How can you find the sum of

Lesson Objective Find the sum of two 2-digit numbers.

Essential Question How can you find the sum of two 2-digit numbers?

Materials MathBoard



Maimated Math Models MM HMH Mega Math



Model and Draw Math Processes and Practices

Have children look at the sample addition problem.

- How many tens and ones are in 23? 2 tens and 3 ones.
- How many tens and ones are in 14? 1 ten and 4 ones.

Discuss with children the process of adding the tens in each addend and the ones in each addend. Guide children to see that this gives them the sum.

- How many tens and ones are there in all? 3 tens and 7 ones
- What is the sum? 37

two 2-digit numbers?	<u>}</u>		
	Model o	and Draw	
What is 23 +	4?		
	You can find how	v many tens an	d ones in all.
	2 ter	as 3 ones	2 3
	+ I ten	4 ones	<u>+ 14</u>
	<u> </u>	ns <u> </u>	37
Share and	Show MATH BOARD	6	
1. 02	2. 20	3. 15	4. / 1
<u>+ 12</u> 94	<u>+ +3</u> 68	<u>+ 14</u> 29	<u>+ 12</u> 83
5 . 36	6 . 43	7. 57	8. 21
+ 21	+ 41	+ 32	+ 12
57	84	89	33
9. 12	10. 41	II. 32	12. 51
<u>+ 12</u>	<u>+ 21</u>	<u>+ 41</u>	<u>+ 14</u>
24	62	73	65
Possib digits, Math How do	le answer: There are 2 + 1. Talk How many ter o you know?	3 tens. I add the ans are in 26 + 11?	tens
Getting Ready for (Grade 2		nineteen GRI9

GR: Reteach, p. GRR9 **GR: Practice, p. GRP9** Lesson 9 Add Two-Digit Numbers Add Two-Digit Numbers Add. Write the sum Add to find how many tens and ones in all 2. 65 +34 79 31 2 I. з. Write the sum +32 53 +52 Tens Ones 22 00 + 13 35 4. **6.** 46 5. 72 14 000 +31 +2I 35 +26
98 Add. Write the sum 8. 9. 27 **7**. 53 +54 +50 1. 31 Tens Ones **2**. 65 +12 + 14 + 24 10. 84 н. 32 12. 56 +11 95 +53
85 +22 **3**. 63 4. 42 + 25 88 + 34 76 Problem Solving (Real 00000 13. Evan has 15 toy cars. His brother has 13 tov 5. 81 6. 23 cars. How many toy cars do the boys have + 17 98 + 33 together? 00000 28 toy cars GRR9 nine GRP9 Getting Ready for Grade 2

This lesson builds on addition presented in Chapter 8 and prepares children for fluent

Lesson 9 Reteach

There are 3 tens There are 5 ones The sum is 35.

100

0000

8

ŝ

Grade

addition within 100 taught in Grade 2.

	On	Your C	lwn
--	----	--------	-----

Add. Write the sum.

I3. 83	14. 73	15. 16	16. 23
+ 12	+ 21	<u>+ 51</u>	+ 43
95	94	67	66
17. 24	18. 67	19. 64	20 . 51
<u>+ 55</u>	<u>+ 21</u>	<u>+ 23</u>	<u>+ 24</u>
79	88	87	75
2 I. 26	22 . 51	23 . 46	24 . 34
+ 32	+ 25	+ 22	+ 45
58	76	68	79

TAKE HOME ACTIVITY • Tell your child you drove 21 miles and then you drove 16 more. Have your child add to find how many miles in all.

Problem Solving (Real

25. Emma has 21 hair clips. Her sister has 11 hair clips. How many hair clips do the girls have together?

32 hair clips

0

GR20 twenty



Share and Show • Guided Practice

- How do you find how many ones in all? I add the ones of both numbers together.
- How do you find how many tens in all? I add the tens of both numbers together.

Use Math Talk to check children's understanding of adding two 2-digit numbers.

🕨 On Your Own

If children completed Exercises 1–12 correctly, assign Exercises 13–24. Some children may benefit by drawing quick pictures to show the problems they find difficult.

• How can drawing a quick picture help you solve? A quick picture shows how many tens and ones there are in each addend and how many tens and ones in all.

Problem Solving

hund

Publish

lifflin



UNLOCK THE PROBLEM Discuss the word problem in Exercise 25.

- What do you know? Emma has 21 hair clips. Her sister has 11 hair clips.
- What do you need to find? how many hair clips in all
- How will you solve the problem? I will add 21 + 11.



Math Processes and Practices

Essential Question

How can you find the sum of two 2-digit numbers? I can add the tens of each number together and the ones of each number together to find how many tens and ones there are in all.

Math Journal

WRITE Math

Draw quick pictures to show how to use tens and ones to find 26 + 31.

LESSON 10

Repeated Addition

LESSON AT A GLANCE

Lesson Objective

Use repeated addition to add equal groups.

Essential Question

How can you find how many items there are in equal groups without counting one at a time?

Materials

MathBoard, two-color counters



Mimated Math Models



Model and Draw Math Processes and Practices

Have children use their MathBoards and model the problem with counters.

- How many groups are there? 4
- How many counters are in each group? 2

Model how to add 2 + 2 + 2 + 2. Say and point to the numbers: 2 + 2 = 4, 4 + 2 = 6, 6 + 2 = 8.

Share and Show • Guided Practice

Have children complete Exercises 1–3. Check that children are recording the number in each group on the blanks and not the number of groups.



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10 books

ten GRPIO

6. There are 2 shelves. Each

shelf has 5 books. How

many books are there?

Use your MathBoard and O. Make equal

How many in all?

2 + 2 + 2 + 2 + 2 = 8

Grade

5 + 5 + 5 = 15

GRR10

groups. Complete the addition sentence

Group

5

2

Number Number

of Equal in Each

Groups

3

4

2.

Reteach

5. There are 3 bowls. There

How many apples are there?

Getting Ready for Grade 2

are 3 apples in each bowl.

9_ apples

On Your Own

Use your MathBoard and **O**. Make equal groups. Complete the addition sentence.

	Number of Equal Groups	Number in Each Group	How many in all?
4.	2	3	<u>3</u> + <u>3</u> = <u>6</u>
5.	3	5	<u>5</u> + <u>5</u> + <u>5</u> = <u>15</u>
6.	4	4	<u>4</u> + <u>4</u> + <u>4</u> + <u>4</u> = <u>16</u>
7.	4	5	5 + 5 + 5 + 5 = 20
8.	5	7	<u>7</u> + <u>7</u> + <u>7</u> + <u>7</u> + <u>7</u> = <u>35</u>

Problem Solving (world)

- Solve.
- **9.** There are 3 flower pots. There are 2 flowers in each flower pot. How many flowers are there?
- 10. There are 2 plants. There are 4 leaves on each plant. How many leaves are there?

8 leaves

6 flowers

TAKE HOME ACTIVITY • Use dry cereal or pasta to make 3 equal groups of 5. Ask your child to find the total number of items.

GR22 twenty-two

• How did you know what numbers to add in each problem? I repeated the number that told how many are in each group.

Use Math Talk to make sure children understand that to use repeated addition to find 5 groups of 4, they must add 4 five times.

On Your Own

If children answered Exercises 1–3 correctly, assign Exercises 4–8.

• How are all the addition sentences you wrote alike? I add the same numbers two or more times in each addition sentence.

Problem Solving



UNLOCK THE PROBLEM For Exercises 9 and 10, children are asked to complete problems using repeated addition.

- How can you find the answer to Exercise
 9 by adding equal groups? I can add three groups of 2.
- How can you find the answer to Exercise 10 by adding equal groups? I can add two groups of 4.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you find how many items there are in equal groups without counting one at a time? I can add the number of items in each group as many times as the number of groups.



WRITE Math

Use pictures to show 5 groups that each have 5 marbles. Then write a number sentence to show how to find how many marbles there are in all.

LESSON 11

Use Repeated Addition to Solve Problems

LESSON AT A GLANCE

Lesson Objective Use repeated addition to solve real world problems.

Essential Question How can you use repeated addition to solve problems?

Materials

MathBoard, crayons



HMH Mega Math



Model and Draw Math Processes and Practices

Have children use their MathBoards to record the addition sentence and draw the 3 groups of 4 balloons.

- How many equal groups are there? 3
- How many balloons are in each group? 4
- How can you use this information to write a repeated addition sentence? Possible answer: I can add three 4s, and that is 4 + 4 + 4.
- How can you solve 4 + 4 + 4? Possible answer: 4 + 4 = 8, and 8 + 4 = 12. So, Dyanna needs 12 balloons in all.

This lesson builds on addition presented in Chapter 5 and prepares children for repeated addition taught in Grade 2. Name Use Repeated Addition to Solve Problems Essential Question How can you use repeated addition to solve problems? Model and Draw Dyanna will have 3 friends at her party. She wants to give each friend 4 balloons. How many balloons does Dyanna need? 🖌 balloons **THINK** 4 + 4 MATH BOARD Share and Show Draw pictures to show the story. Write the addition sentence to solve. I. Ted plays with 2 friends. He Children should draw 2 groups of 5 cards. wants to give each friend 5 cards. How many cards does Jan Jana Ted need? BAR RO **IO** cards 5 + 5 = 102. Aisha shops with 4 friends. She wants Children should draw 4 groups of 2 roses. to buy each friend 2 roses. How many roses does Aisha need? 8 roses 2 + 2 + 2 + 2 = 8Possible answer: There are 4 friends. Each gets 2 roses, so I used repeated addition and I added 2 + 2 + 2 + 2 = 8. Math Talk What pattern can you use to find the answer to Exercise 2? twenty-three **GR23** Getting Ready for Grade 2 **GR: Practice, p. GRP11** GR: Reteach, p. GRR11 Lesson 11 Reteach Use Repeated Addition to Solve Problems **Use Repeated Addition to Solve Problems** Draw pictures to show the story. Loren has 3 jars. She wants to put 5 flowers in each jar Write the addition to solve. How many flowers does Loren need? Children should draw I. Krista plays with 3 friends. Draw a picture to show the story. ter ter ter She wants to give each friend 4 pretzels. How many pretzels 3 groups of 4 pretzels Step I Draw <u>3</u> jars. \square Step 2 Draw 5 flowers in each jar. does Krista need? 12 pretzels 4 + 4 + 4 = 125 _ 5 _ 15 Step 3 Find how many in all. 5 2. Ed plants seeds with 5 friends Children should draw Loren needs 15 flowers. 5 groups of 5 seeds. He wants to give each friend 5 seeds. How many seeds Draw pictures to show the story. does Ed need? Write the addition sentence to solve 25 seeds 5 + 5 + 5 + 5 + 5 = 251. Matt plays with 2 friends. He wants Children should draw 2 groups to give each friend 4 cars. How many cars does Matt need? of 4 cars. Problem Solving (World) TAN Circle the way you can model the problem. 900 <u>4</u> + <u>4</u> = <u>8</u> 8 cars Then solve. 5 groups of 5 books 3. There are 5 friends. Each 2. Liz shops with 3 friends. She wants Children should 5 groups of 4 books friend has 4 books. How to buy each friend 3 hair clips. How draw 3 groups

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eleven GRPII

4 groups of 5 books

There are 20 books

many hair clips does Liz need?

9_hair clips 🛸

GRR11

of 3 hair clips.

+ <u>3</u> + <u>3</u>

Grade

3

many books are there?

Getting Ready for Grade 2



3

2

12.

GR26 twenty-six

9

8

7

etting Ready for Grade 2

15

14

13

14

13

12

8

6

twenty-five GR25

2

4

James has 4 letters. He puts 2 stamps on each letter.

13. Choose the way to model the problem

How many stamps does he use in all?

○ 2 groups of 4 stamps

O 2 groups of 2 stamps

2 + 2 + 2 = 6

<u>4</u> + <u>4</u> = <u>8</u>

4 groups of 4 stamps

• 4 groups of 2 stamps



Share and Show • Guided Practice

Have children complete Exercises 1 and 2. Check that children are drawing pictures and writing a repeated addition sentence to find each answer.

Use Math Talk to focus on children's understanding of how they can use a pattern of repeated addition to find the total when adding the same number multiple times.

On Your Own

If children answered Exercises 1–2 correctly, assign Exercises 3–5.

- How many equal groups are there in Exercise 3? How many are in each group? There are 3 groups. There are 5 in each group.
- How can drawing a picture help you solve the problem? Possible answer: I can draw
 3 groups of 5 and use the picture to count how many ribbons in all.

🕨 Problem Solving 👹



UNLOCK THE PROBLEM For Exercise 6, children are asked to relate their understanding of repeated addition to add equal groups.

 What addition sentence can help solve this problem? What is the answer?
 3 + 3 + 3 + 3 = 12; There are 12 apples in all.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you use repeated addition to solve problems? Possible answer: When a problem has groups with the same number of things, I can add the same number over and over to find the total.

Math Journal

5 friends each have 3 toys. Use numbers and pictures to show the number of toys in all.



🗸 Data-Driven Decision Making 🐴 Rtl

ltem	Lesson	Common Error	Intervene With
1, 10	2	May confuse place value	R —p. GRR2
2, 22	8	May incorrectly add the ones	R —p. GRR8
3, 17, 21	1	May confuse tens and ones	R —p. GRR1
4, 13	7	May not understand how to use strategies to add three numbers	R —p. GRR7
5, 23	4	May not understand which numbers to add	R —p. GRR4
6, 15, 20	9	May incorrectly and ones or tens	R —p. GRR9

Key: R—Getting Ready Lessons and Resources: Reteach



Portfolio Suggestions The portfolio represents the growth, talents, achievements, and reflections of the mathematics learner. Children might spend a short time selecting work samples for their portfolios.

You may want to have children respond to the following questions:

- Which question was difficult?
- What would you like to learn more about?

For information about how to organize, share, and evaluate portfolios, see the *Chapter Resources*.

🗸 Data-Driven Decision Making 📤 Rtl

ltem	Lesson	Common Error	Intervene With
7, 24	3	May confuse comparison symbols	R —p. GRR3
8, 16	10	May not understand how to recognize equal groups and find the total number	R —p. GRR10
9, 14	6	May not understand whether to add or subtract, or which numbers to use	R —p. GRR6
11, 18	11	May confuse the number of equal groups and the number in each group	R —p. GRR11
12, 19	5	May subtract incorrectly	R —p. GRR5

Key: R—Getting Ready Lessons and Resources: Reteach



Choose a Nonstandard Unit to Measure Length

LESSON AT A GLANCE

Lesson Objective

Compare and choose nonstandard units to measure length.

Essential Question

How can you decide which nonstandard unit to use to measure the length of an object?

Materials

MathBoard, paper clips, pencils, connecting cubes, common objects



Animated Math Models

TEACH and TALK Con Contracted Math Models

Model and Draw Math Processes and Practices

Explain that length is the measure of how long an object is.

- What are some things you would measure with a paper clip? Possible answers: a stapler, a crayon What are some things you would measure with a pencil? Possible answers: a table, a desk
- Why is it better to use a pencil than a paper clip to measure longer objects? Explain.
 Possible answer: A pencil is longer than a paper clip.
 It would take many more paper clips than pencils to measure something long.

This lesson builds on using nonstandard units to measure length presented in Chapter 12 and prepares children for choosing the appropriate unit for measuring length taught in Grade 2.

Choose a Nonstandard Unit to Measure Length Essential Question How can you decide which nonstandard unit to use to measure the length of an object?



Share and Show

Name

Chc Use

mec

2.

P:

Check children's answers.

Use real objects. Circle the unit you would use to measure. Then measure.



Nome Choose a Non-Standard Unit to Measure Length You can choose a nonstandard unit to measure the length of real objects. A is short. Use it to measure short object A is longer. Use it to measure long ob Gircle the unit you would use
Choose a Non-Standard Unit to Measure Length You can choose a nonstandard unit to measure the length of real objects. A
You can choose a nonstandard unit to measure the length of real objects. A is short. Use it to measure short object A is longer. Use it to measure long ob Circle the unit varied use
A is snorr. Use if to measure snorr object A is longer. Use it to measure long ob
On ole the drift year would use.
Use to measure .
Use real objects. Circle the unit you Check would use to measure. Then measure. answer
Object Unit Measure
2 about
3. about _

On Your Own

Use real objects. Choose a unit to measure the length. Circle it. Then measure. Ask children to explain their responses.



Problem Solving (World

9. Fred uses it to measure the stick.
 Sue measures the stick and gets the same measurement.
 Circle the unit that Sue uses.



Publishina



TAKE HOME ACTIVITY • Have your child measure something around the house by using small objects such as paper clips and then by using larger objects such as pencils. Discuss why the measurements differ.

GR28 twenty-eight

Share and Show • Guided Practice

Model how to use each nonstandard unit to measure the length of a classroom object.

• Which unit would you use to measure the board? a pencil Why? because a board is long and can be measured with a unit longer than a paper clip

Then have children complete the chart.

Use Math Talk to ensure that children understand that it takes more of a shorter unit than a longer unit to measure the same object.

On Your Own

If children completed Exercises 1–4 correctly, assign Exercises 5–8. You may wish to have children share and compare their answers.

 Look at Exercise 8. Explain how to use cubes to measure the length of a crayon box. Possible answer: I would start at one end of the box and place cubes, end to end, along the box. Then I would count the cubes.

🛛 Problem Solving 👹



UNLOCK THE PROBLEM In order to solve Exercise 9, children need to understand that Sue should use the same unit to get the same measurement.

 Would Sue and Fred get the same measurement if Sue uses the paper clip? Why or why not? No; Possible answer: because a paper clip and a cube are not the same length so the measurements will probably not be the same.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you decide which nonstandard unit to use to measure the length of an object? Possible answers: I can choose a unit that is shorter than the object I am measuring. I can choose shorter units

to measure shorter objects and longer units to measure longer objects.

Math Journal



Which unit could you use to measure the length of a pencil box? Explain.

LESSON 13

Use a Non-Standard Ruler

LESSON AT A GLANCE

Lesson Objective

Measure length with a nonstandard ruler.

Essential Question

How can you use a nonstandard measuring tool to find length?

Materials MathBoard



Animated Math Models



Model and Draw Math Processes and Practices

Point out the paper clip ruler at the top of the page.

- What does the black vertical line at the end of the paper clips show? that the paper clips and pencil are lined up correctly
- How do you use the paper clips to find how many paper clips long the pencil is? I count the paper clips from one end of the pencil to the other.
- About how long is the pencil? about 4 paper clips long



Share and Show • Guided Practice

• Are the paper clips in the correct position in Exercise 1? Explain. Yes, because the left ends are lined up.

Name	This lesson builds on non-standard length presented in Chapter 9 and prepares children for measurement taught in Grade 2.				
Use a Non-Standard Ruler Essential Question How can you use a non-standa	Use a Non-Standard Ruler Essential Question How can you use a non-standard measuring				
tool to find length?					
Model and	Draw				
About now long is the pencil?					
The end of the pencil and the end how many _ from one end of the	of the must line up. Count e pencil to the other.				
	about				
Share and Show					
About how long is the string?					
I.					
	about <u>2</u>				
2.					
Jishhig Com	5				
Bessible grouper If they do no					
less than the pencil.	r line up, you are measuring more or				
Math Talk In Exercise I, why and the end of the — line up?	must the end of the pencil				
Getting Ready for Grade 2	twenty-nine GR29				
GR: Practice, p. GRP13	GR: Reteach, p. GRR13				
NomeLesson 13	Lesson 13 Nome Releach				
Use a Non-Standard Ruler About how long is the string?	Use a Non-Standard Ruler Use the case to measure the marker.				
about <u>9</u> ===					
	The marker is about / long				
	How many long is the string?				
	How many co long is the string?				
3. A Contraction of the second	How many colong is the string? I. about 8 colong 2.				
3. Contraction of the second	How many colong is the string? I. about 8 colong 2. about 5 colong				
	How many cong is the string? I. about 8 cong 2. about 5 cong				

On Your Own About how long is the string? 3.
about <u>3</u>
4.
about <u>2</u>
about <u>5</u>
Problem Solving (World
6. Wendy measures her pencil. She says it is about 2 — long. Is she correct? Explain.
Possible answer: No. The end of the pencil is closer to 3 paper clips, not 2 paper clips.
TAKE HOME ACTIVITY • Have your child use 20 paper clips to measure different small objects in your house. Be sure the paper clips touch end to end. GR30 thirty

Use Math Talk to discuss the importance of lining up the object being measured and the measuring tool.

On Your Own

If children completed Exercises 1–2 correctly, assign Exercises 3–5.

• What do you notice about the paper clips? The paper clips touch each other and do not overlap.

Problem Solving Real

UNLOCK THE PROBLEM Lead a class discussion on accurate measuring techniques. Then have children check to see if Wendy measured correctly in Exercise 6.

- How do you position a ruler when you measure an object? I line up the left end of the ruler with the left end of the object.
- How do you find how many units long the object is? I count the units from one end of the object to the other.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you use a non-standard ruler to measure length? I line up the end of the ruler with the object I am measuring. Then I count the number of units from one end of the object to the other.

Math Journal

WRITE Math

Use paper clips. Draw a line that is 6 paper clips long. Label your line.

LESSON 14

Compare Lengths

LESSON AT A GLANCE

Lesson Objective Compare and then measure lengths with nonstandard units.

Essential Question How can you compare lengths of objects?

Materials MathBoard, base-ten unit cubes



🚾 Animated Math Models HMH Mega Math



Model and Draw Math Processes and Practices

Materials base-ten unit cubes

Point out the strings at the top of the page.

- Which string is shortest? the top string How can you tell? The left ends of the strings are lined up. So I look at the right ends to find the shortest string.
- Use base-ten unit cubes to measure the strings. What lengths are the strings, from shortest to longest? about 4 cubes, about 6 cubes, about 8 cubes
- Which string measures the greatest number of cubes? the longest string



Share and Show • Guided Practice

• In Exercise 1, what number do you write to order the shortest string? 1 Why does the shortest string come first? You are ordering from shortest to longest.

Use Math Talk to show children that measuring with cubes can be used to determine the order of the strings from shortest to longest.

This lesson builds on ordering lengths presented in Chapter 9 and prepares children for comparing standard measurements taught in Grade 2. **Compare Lengths** Essential Question How can you compare lengths of objects? Model and Draw First, write I, 2, and 3 to order the Then measure strings from **shortest** to **longest**. with D.

		about		D	Shortest
		about	8	D	-Longest
2		about	6	0	
S	hare and Show				

Name

Write I, 2, and 3 to order the strings from **shortest** to **longest**. Then measure with \square . Write the lengths.

ı. <mark>2</mark>		about <u>5</u> 🖻
<u> </u>	annan	about <u>3</u> 🖻
3		about <u>9</u> 🖻
	Possible answer: The string that measures th	e least

number of cubes is shortest. The string that measures the greatest number of cubes is longest.

Math Talk How can measuring with cubes tell you the order of the strings?

Getting Ready for Grade 2

Compare

I. Write I.

2. Write I.

longe 3

1

2

Problem

3. Julie

short Mega

Then n 2 1 3

thirty-one GR31

GR: Practice, p. GRP14	GR: Reteach, p. GRR14		
Lesson 14	Lasson 14 Nome Releach		
Lengths	Compare Lengths		
2, and 3 to order the ribbons shortest to longest. easure in the Write the lengths.	The black ribbon is <u>shortest</u> .		
about <u>7</u> to	The gray ribbon is <u>longest</u> .		
about <u>5</u> @	Use to measure each ribbon.		
about <u>10</u> क	about <u>8</u> to long		
2, and 3 to order the ribbons from shortest to	about 10 to long		
about <u>8</u> to	about <u>6</u> to long		
about <u>4</u> 🕫	Color the shortest ribbon blue		
about <u>5</u> to	Color the longest ribbon yellow.		
n Solving (Real)	Then measure with 🕲. Write the lengths.		
has these pieces of lace. Julie gives Megan the			
est one. Measure with 🖻 and write the length of	color blue about 5 to long		
	color yellow about 9 to long		
***************************************	about 7 @ long		
about <u>8</u> @			
for Grade 2 fourteen GRPI4	Reteach GRR14 Grade 1 O longing With Stream Publicity Company		



🕨 On Your Own

If children complete Exercise 1 correctly, assign Exercises 2 and 3.

• Predict which string in Exercise 2 will measure the fewest number of cubes. Possible answer: the shortest string, the string at the top of the page



UNLOCK THE PROBLEM Read aloud the problem in Exercise 4. Children can solve by visually determining which ribbon is longest and then measuring that ribbon.

• Do you need to measure each ribbon? Explain. No, I only need to measure the longest ribbon because the longest ribbon is Hannah's ribbon.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you compare lengths of objects? I can look at the objects to compare their lengths. Or, I can measure the lengths and compare the measurements.

Math Journal

WRITE Math

Suppose there are three lines, about 2 cubes long, about 4 cubes long, and about 5 cubes long. Are the lines in order from shortest to longest? Write your prediction and then check by drawing the lines.



Time to the Hour and Half Hour

LESSON AT A GLANCE

Lesson Objective

Tell and write time to the hour and half hour using an analog clock.

Essential Question

How do you tell time to the hour and half hour on an analog clock?

Materials

MathBoard



Animated Math Models i Tools: Measurement (Clocks) M HMH Mega Math



Model and Draw Math Processes and Practices

Materials *i*Tools: Measurement (Clocks)

Use the illustrations at the top of the page or the *i*Tools analog clock to review time in hours and half hours. Use clocks that show 4:00 and 4:30.

Direct children's attention to the clock showing 4:00.

• Where does the hour hand point on this clock? at 4 What is the time? 4:00

Direct children's attention to the clock showing 4:30.

- Where does the hour hand point on this clock? halfway between 4 and 5 What is the time? 4:30
- Where does the minute hand point for time to the hour? at 12 Where does it point for time to the half hour? at 6

This lesson builds on time presented in Chapter 9 and prepares children for time taught in Grade 2.

Time to the Hour and Half Hour

Name

Essential Question How do you tell time to the hour and half hour on an analog clock?



The hour hand and the minute hand show the time. Write the time shown on the clock.





1.30

Share and Show

Getting Ready for Grade 2

I. **2.**



Possible answer: In one hour, the hour hand moves from one number to the next. So, at half past 5:00, the hour hand is halfway between the 5 and 6.

Math Talk Why does the hour hand point halfway between 5 and 6 at half past 5:00?

thirty-three GR33





Share and Show • Guided Practice

• Where does the hour hand point for time to the hour and time to the half hour? For time to the hour, the hour hand points to the number. At time to the half hour, the hour hand points halfway between two numbers.

Have children complete Exercises 1–3.

Use **Math Talk** to discsuss with children the placement of the hour hand at half past an hour.

On Your Own

If children complete Exercises 1–3 correctly, assign Exercises 4–9.

• What is the time in Exercise 6? 11:30 What is the time in Exercise 7? 11:00

Problem Solving Work



- at the half hour.
 Is the time Liam has soccer practice a time to the hour or the half hour? How do you know? time to the half hour; Possible answer: half
 - past 10:00 names a time to the half hour.



Math Processes and Practices

Essential Question

How do you tell time to the hour and half hour on an analog clock? I look at the hour hand. On the hour, it points to the hour. On the half hour, it points halfway between the hour number and the next hour number. The minute hand points to 12 on the hour and to 6 on the half hour.

Math Journal



Draw a clock with an hour hand and a minute hand. Show the time 3:00.

LESSON 16

Use a Picture Graph

LESSON AT A GLANCE

Lesson Objective

Read and interpret information displayed on a picture graph.

Essential Question How do you read a picture graph?

Materials

MathBoard



Animated Math Models



Model and Draw Math Processes and Practice

Read aloud the title and labels on the graph.

- What does this picture graph show? whether children chose mustard or ketchup
- How many children chose mustard or ketchup? 8 How do you know? Each stick person stands for 1 child, and there are 8 stick people.
- How many children chose mustard? 3 How do you know? I count the stick people in the row labeled "mustard."



Share and Show • Guided Practice

• What does this picture graph show? whether children are wearing black, white, or blue socks

Have children complete Exercises 1–3.

Use **Math Talk** to ensure children understand how to read a picture graph.

	presented in Chapter 10 and prepares children for using graphs taught in Grade 2.
	Use a Picture Graph Essential Question How do you read a picture graph?
	Model and Draw
	Our Favorite Hot Dog Toppings
	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
2	Each 옷 stands for 1 child.
	children chose . Maat shildren shaas (Station 1997)
	fewer children chose than a.
	Share and Show
	Our Sock Colors black A A white A A A
	Wnife X
ed	Each ⅔ stands for 1 child.
lodels	Use the picture graph to answer the questions.
s	2. What color of socks are most of the children wearing? <u>white</u>
	3. How many more children wear 🏝 than 🍆? 💾
ier	Possible answer: I counted back to find the difference between 6 and 2. Math Talk How did you find the answer to Exercise 3?
e.	Getting Ready for Grade 2 thirty-seven GR37
v	
	GR: Practice, p. GRP16 GR: Reteach, p. GRR16
	Nome Release Televise Te
	Lassie's Day Orapes We Like Orapes We Like Open grapes R R R R R Open grapes R R R R R R Open grapes R R R R R Open grapes R R R R R R R Open grapes R R R R R R R Open grapes R R R R R R R R R Open grapes R R R R R R R R R R Each (0) stands for I hour. Open grapes Chose (0) R Chose (0) R Chose (0) R
ier	Use the picture graph to answer each question. I. What did Lassie do most of the day? Circle.
	3. How many more hours did Lassie spend in that in the spend in th

This lesson builds on picture graphs

Gerting Ready for Grade 2 sixteen GRP16 Resources (www.thinkcentral.com)

7 hours

2 hours

3 hours

Problem Solving World

5. Yesterday Lassie spent

2 hours 🔐 . How many

more hours did Lassie

spend 🔯 today?

Use the picture graph to answer the quest

L children

blue

3. What color shirts are most

of the children wearing?

there in all?

1. How many children are 2. How many children are

wearing U?

4. How many more children

are wearing ${f T}$ than ${igenred P}$?

2 children

2 children

Grade



🕨 On Your Own

If children complete Exercises 1–3 correctly, assign Exercises 4–7. Children will need to read the picture graph, answer questions about the data, and make comparisons.

 How do you compare three rows on a picture graph? I look to see which row has more.
 I can count to see how many more or how many fewer.

🕨 Problem Solving 👹



UNLOCK THE PROBLEM In order to solve the problem in Exercise 8, children will need to refer to the graph at the top of the page.

• What do you need to find on the picture graph in order to solve the problem? I need to find how many sunny days are already shown on the picture graph.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How do you read a picture graph? I can see how many pieces of data are recorded and how many are in each category. I can see which category has more or less, and I can find how many more or less.

Math Journal

WRITE Math

Look at the picture graph, Our Weather. Write a different question that can be answered by reading the graph.



Use a Bar Graph

LESSON AT A GLANCE

Lesson Objective Read and interpret information displayed on a bar graph.

Essential Question How do you read a bar graph?

Materials MathBoard



🚾 Animated Math Models MM HMH Mega Math

TEACH and TALK Math Models

Model and Draw Math Processes and Practices

Read aloud the title and labels on the graph.

- What does this bar graph show? the number of goldfish, guppies, and angel fish in the class aquarium
- How is a bar graph different from a picture **graph?** A bar graph has numbers at the bottom, and it has bars instead of pictures.



Share and Show • Guided Practice

- How do you tell the number of fish by looking at a bar? You read the number below the end of the bar.
- How do you compare data on the graph? You compare the lengths of the bars or the numbers the bars show.

Have children complete Exercises 1-4.

Use Math Talk to check children's understanding of how to read a bar graph.



Name

choose? Circle.

Problem Solving (Real World)

g Ready for Grade 2







🕨 On Your Own

If children complete Exercises 1–4 correctly, assign Exercises 5–8. To complete the exercises, children will need to use the bar graph at the top of the page.

• What does this bar graph show? how many children prefer carrots, potatoes, or corn



UNLOCK THE PROBLEM Children can solve the problem in Exercise 9 by using the bar graph.

 What do you need to find on the bar graph in order to solve the problem?
 I need to find how many children chose corn.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How do you read a bar graph? Possible answer: I can see how many are in each category. I can see which category has more or less, and I can find how many more or less.

Math Journal



Look at the bar graph, Our Favorite Vegetables. Write a different question that can be answered by reading the graph.

LESSON 18

Take a Survey

LESSON AT A GLANCE

Lesson Objective Take a survey and record the results.

Essential Question How can you take a survey?

Vocabulary survey

Materials MathBoard



Mimated Math Models



Model and Draw Math Processes and Practices

Review tally charts by having children tell what they are.

- What does this tally chart show? Jane's friends' favorite wild animals; 5 of Jane's friends chose elephants, 3 chose monkeys, and 2 chose tigers.
- How do you think Jane took this survey? Possible answer: She chose three wild animals and asked each of 10 friends to name their favorite of the three wild animals. Then Jane recorded her friends' answers in a tally chart.



Share and Show • Guided Practice

Before children take their surveys, remind them to ask 10 classmates which wild animal is their favorite. Have them record the choices in the tally chart.

• Will any children choose lions? Why or why not? No, because the tally chart on this page does not list lion as a choice.

	The provide state of the provi	nis lesson builds on reading esented in Chapter 9 and	g tally charts prepares
	Name	om surveys taught in Grad	e 2.
	Take a Survey Essential Question How can you take a survey?		
	Model and Dra	W	ED
	You can take a survey to get information Jane took a survey of her friends' favor wild animals. The tally chart shows the re	on. Each tally r ite stands for friend's ch	nark one oice.
	Favorite Wild AnimalAnimalTallyelephantIIImonkeyIIItigerII		×
	Share and Show		
	 I. Take a survey. Check children's work. Ask 10 classmates which wild animal is their favorite. Use tally marks to show their answers. For 2-4, answers should reflect data represent tally charts. 2. How many children did not choose ch 	tiger?	e Wild Animal Tally
mpany			
blishing Co	3. Did more children choose elephant	or figer?	
lifflin Harcourt Pu	4. The most children chose Possible and favorite art as their favorite.	swer: I could take a s projects with choices painting, and clay.	urvey of drawing,
© Houghton N	Math Talk Describe a different survitake. What would the choices be?	vey that you could	
	Getting Ready for Grade 2	forty-	one GR4 I
	CD. Drastica p. CDD10	CD Detectory CD	24.0
	GR: Practice, p. GRP16	GR: Refeach, p. GR	Lesson 18
ame . ake	ake a Survey Lesson 18 Nome Take	a Survey	neieacii
I. To w to Chec	I. Take a survey. Ask 10 classmates which fruit is their favorite. Use tally marks to show their answers. Check children's work. Description of the survey o	you take a survey, you collect informatic narks help you keep track of the ation you collect.	
Exen	ecorded in the chart. banana orange Chris h The tal Chris h Chris h Chri	ook a survey of his friends' favorite lunc ly chart shows their answers.	h. Favorite Lunch h Tally
2. V	2. Which fruit did the fewest classmates choose?	whild en chose schowich. sandwich shild en chose pizza.	ch III JHTI
3. V	3. Which fruit did the most classmates choose? The mo	ost children chose	
4.D	H. Did more classmates choose apple or orange? I. Take S classmates chose a fruit that was not apple. I. Take Ask I their f	Check children's work. a survey. O classmates which lunch is avorite. Use tally marks to	Favorite Lunch
Pro 6.	A. Felix wants to ask 12 friends	their answers. pizza	

*GR – Getting Ready Lessons and Resources (*www.thinkcentral.com*)

eighteen GRP18

Tally

Our Favorite Pets

ШН

Ш

1

Pet

dog

cat

bird

which pet is their favorite.

He makes I tally mark for each child's answer. How many more friends does he

need to ask?

Getting Ready for Grade 2

3 more friends

Grade 1

GRR18

2. Did more children choose pizza or

3. The most children chose

taco?

On Your Own

 Take a survey. Ask 10 classmates which color is their favorite. Use tally marks to show their answers.

Our Favorite Color			
Color	Tally		
red			
blue			
green			

Check children's work. For 6–10, answers should reflect data recorded in the chart.

6. Which color was chosen by the fewest classmates? ____

7. Which color did the most classmates choose? _____

8. Did more classmates choose red or green? _____

9. _____ classmates chose a color that was not red.

10. Did fewer children choose blue or green?

Problem Solving (Real

II. Jeff wants to ask 10 classmates which snack is their favorite. He makes I tally mark for each child's answer. How many more classmates does he need to ask?

Our Favorite Snack		
Snack	Tally	
pretzels	Π	
apples	I	
popcorn	IHI	

2 more classmates

TAKE HOME ACTIVITY • Have your child survey family members about their favorite sport and make a tally chart to show the results.

GR42 forty-two

Have children complete Exercises 1-4.

Use Math Talk to encourage children to suggest possible surveys, such as favorite school subjects or favorite books. Discuss possible choices for each survey.

On Your Own

If children completed Exercises 1–4 correctly, assign Exercises 5–10.

Point out the three color choices shown in the tally chart. Have a volunteer suggest a survey question to ask about favorite colors. Have children take the survey and record the data in the tally chart. Children then use the tally chart to answer Exercises 6–10.

How can you check to make sure that you asked 10 classmates to answer your survey question? Possible answer: I can count the total number of tally marks to be sure there are 10 in all.

Real Problem Solving

UNLOCK THE PROBLEM Exercise 11 requires children to model with mathematics to find the total number of tallies already in the chart and then subtract that number from 10.

- What is the first step you will do to solve this problem? Count the number of tally marks there are so far in the tally chart.
- What is the next step you will do? Subtract the number from 10 to find how many more classmates need to be surveyed to have 10 in all.

Have volunteers suggest a question that can be answered by using the information in the tally chart. Then use the chart to answer the question.

3 SUMMARIZE

Math Processes and Practices

Essential Question

How can you take a survey? Possible answer: I can make up a survey question with some choices. I can ask a number of people the question. Then I can record their answers next to each choice, using tally marks in a tally chart.

Math Journal

WRITE Math

Make a tally chart to show that 7 children like the color green and 4 children like the color purple.

LESSON 19

Identify Shapes

LESSON AT A GLANCE

Lesson Objective

Use attributes to help identify two-dimensional shapes.

Essential Question How can attributes help you identify a shape?

Materials MathBoard



🚾 Animated Math Models MM HMH Mega Math

TEACH and TALK Animated Math Models

Model and Draw Math Processes and Practices

Use the small diagram to review the terms side and vertex. Then discuss these attributes.

- How can sides and vertices help you identify a hexagon? I can count to see if there are 6 sides and 6 vertices.
- Can you always identify the shape by counting the sides and vertices? Explain. No. Possible answer: A shape with 4 sides and 4 vertices might be a square, rectangle, or trapezoid. It depends on how long the sides are and if they are slanted.



Share and Show • Guided Practice

 How are the first two shapes in Exercise 1 alike? They both have 3 sides, 3 vertices, and the same shape name.

Have children complete Exercises 1-4.

Use Math Talk to have children compare attributes of a square and a non-square rectangle.





*GR – Getting Ready Lessons and Resources (*www.thinkcentral.com*)

riangle



On Your Own

If children complete Exercises 1–4 correctly, have them continue to use defining attributes to identify the shapes in Exercises 5–8.

 What is the first shape in Exercise 5? triangle What is the first shape in Exercise 6? triangle Why do the two triangles look different? Possible answer: They are turned in different directions.

Problem Solving World

UNLOCK THE PROBLEM Read aloud the problem in Exercise 9. Then have children draw to show a possible scenario.

- What do the children's shapes have in common? They all have 4 sides.
- How might the shapes be different? The sides might be different lengths. A shape might have some slanted sides.

3 SUMMARIZE

Math Processes and Practices

its attributes.

Essential Question

How can attributes help you identify a shape? If I know how many sides or vertices a shape has, it helps me identify what shape it is.

Math Journal **WRITE** Math Draw a square. Write to describe

LESSON 20

Equal Shares

LESSON AT A GLANCE

Lesson Objective Identify halves and fourths in circles and rectangles.

Essential Question How can you name two or four equal shares?

Materials MathBoard



DIGITAL

Animated Math Models



Model and Draw Math Processes and Practices

Use the illustrations at the top of the page to discuss halves and fourths.

- A whole rectangle has how many halves?
 2 halves A whole rectangle has how many fourths?
 4 fourths
- Can one half of a rectangle be larger than the other half? Explain. No. If one part is larger, the parts are not halves because halves are equal shares.
- How could you show that the 4 fourths of the rectangle are equal? Possible answer: I could cut them apart and stack them to show that they match.

This lesson builds on equal shares presented in Chapter 12 and prepares for further work with equal shares taught in Grade 2.

Equal Shares

Name

Essential Question How can you name two or four equal shares?





On Your Own

Circle the shape that shows equal shares. Write to name the equal shares.





Share and Show • Guided Practice

• Explain how you will know what to circle in Exercise 1. Only one square shows equal shares. I find that square and circle it.

Use **Math Talk** to check children's understanding of the concept of equal shares, halves, and fourths.

On Your Own

If children complete Exercises 1–4 correctly, assign Exercises 5–8.

- What will you look for when you are trying to identify a shape that shows fourths? Possible answer: 4 equal-sized parts
- What will you look for when you are trying to identify a shape that shows halves? Possible answer: 2 equal-sized parts

Problem Solving



UNLOCK THE PROBLEM Read aloud the problem in Exercise 9. Children can refer to the illustrations in Exercises 5–8 for partitioning ideas.

 How many equal shares will you cut each cracker into? Possible answer: 2 equal shares, because I share with one friend.



Math Processes and Practices

Essential Question

How can you name two or four equal shares? If a shape shows 2 equal shares, it is halves. If it shows 4 equal shares, it is fourths.

Math Journal



Draw two circles. Draw to show 2 equal shares in one circle. Draw to show 4 equal shares in the other. Write halves or fourths to name the equal shares.



Item	Lesson	Common Error	Intervene With
1, 7, 21	13	May not understand how to use a ruler	R —p. GRR13
2, 12, 20	15	May confuse the hour hand and the minute hand on an analog clock	R —p. GRR15
3, 16, 23	20	May not recognize 2 or 4 equal shares	R —p. GRR20
4, 8, 19	12	May not understand how to choose non-standard units to measure	R —p. GRR12
5, 15, 24	14	May confuse the longest and shortest lengths	R —p. GRR14
6, 13	18	May not understand how to count tally marks	R —p. GRR18

Key: R—Getting Ready Lessons and Resources: Reteach

Getting Ready Test Lessons 12–20 Page 5 Getting Ready Test Lessons 12–20 Page 6 18. Use the bar graph to 21. Use the paper clip ruler 22. Which shape has 17. Use the picture graph to answer the question. answer the question. to measure. 6 vertices? Our F orite Gam X 6.9 How long is the string? o about I paper clip 1 2 3 4 Number of Child about 2 paper clips What animal did the most How many children children choose? chose cards? o about 4 paper clips O lion bear o 3 05 o about 5 paper clips o elephant 04 • 6 o tiger 23. Which shape shows 4 24. Which ribbon is the 19. Deakin uses a 💽 to 20. The clock shows when equal shares? shortest? measure an object. Which Jasmine eats lunch. object did he measure? 0 ____ o a stove o a table • a shoe What time is it? . o a bookcase 06:00 0 10:00 08:00 • 12:00 GO ON STOP GRT11 GRT12 Assessment Guide Mixed Res

End-of-Year Resources

Portfolio Suggestions The portfolio represents the growth, talents, achievements, and reflections of the mathematics learner. Children might spend a short time selecting work samples for their portfolios.

You may want to have children respond to the following questions:

- Which question was difficult?
- What would you like to learn more about?

For information about how to organize, share, and evaluate portfolios, see the *Chapter Resources*.

🗸 Data-Driven Decision Making 📤 RtD

ltem	Lesson	Common Error	Intervene With
9, 17	16	May not understand how to find information on a picture graph	R —p. GRR16
10, 18	17	May look at the wrong bars on the graph for information	R —p. GRR17
11, 14, 22	19	May confuse attributes of plane shapes	R —p. GRR19

Key: R—Getting Ready Lessons and Resources: Reteach