

**Student Workbook** 



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# Adding, Subtracting, and Working with Data

# **Table of Contents**

Lesson 1	Count and Add
Lesson 2	<b>Explore Expressions and Sums</b>
Lesson 3	<b>Add 1 or 2</b> 6
Lesson 4	More Work with 1 and 2
Lesson 5	<b>Explore Addition and Subtraction</b> 10
Lesson 6	<b>Center Day 1</b>
Lesson 7	Sort Math Tools
Lesson 8	Sort and Count Shape Cards17
Lesson 9	What is Your Favorite?19
Lesson 10	<b>Center Day 2</b>
Lesson 11	Class Pet Survey26
Lesson 12	<b>How Many?</b> 32
Lesson 13	Questions About Data35
Lesson 14	<b>Center Day 3</b>
Lesson 15	Animals in the Jungle (optional)43
Cumulat	ive Practice Problems
Section A:	Add and Subtract within 1047
Section B:	Show Use Your Data56

#### **Lesson 1: Count and Add**

• Let's count objects.

# Warm-up: What Do You Know About Math?

What do you know about math?

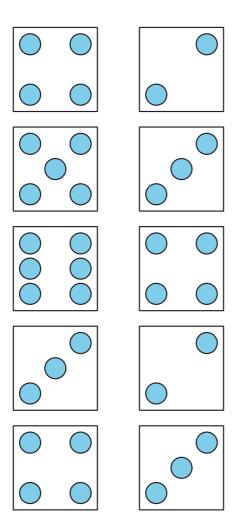


# **Lesson 2: Explore Expressions and Sums**

• Let's write addition expressions and find the sum of two numbers.

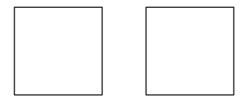
# 2.1: Matching Dot Cards and Expressions

Match each pair of dots to an expression. Then, find the total.



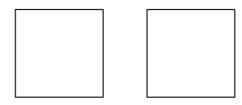
expression	total
3 + 2	
4+2	
5 + 3	
6+4	
4+3	

Draw the missing dots to match the expression. Then, find the total.



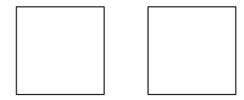
Expression: 4 + 2

Total: \_\_\_\_\_



Expression: 5 + 2

Total: \_\_\_\_\_

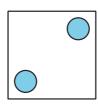


Expression: 2 + 6

Total: \_\_\_\_\_

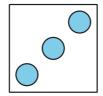
Write the missing expression to match the dots. Then, find the total.





Expression: \_\_\_\_\_

Total: \_\_\_\_\_





Expression:

Total: \_\_\_\_\_

#### Lesson 3: Add 1 or 2

• Let's add 1 or 2.

# Warm-up: How Many Do You See: Dot Cubes

How many do you see? How do you see them?













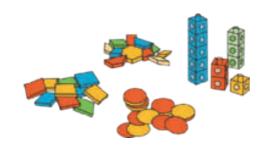




#### 3.2: Centers: Choice Time

Choose a center.

#### **Counting Collections**



Number Race



Check it Off



Five in a Row: Addition and Subtraction



#### Lesson 4: More Work with 1 and 2

• Let's subtract 1 or 2.

# Warm-up: Number Talk: Add 1 or 2

Find the value of each expression mentally.

• 6 + 1

• 6 + 2

• 8 + 1

• 8 + 2



#### 4.2: Centers: Choice Time

Choose a center. See instructions in the teacher guide.

**Counting Collections** 

Number Race





Check it Off

Five in a Row: Addition and Subtraction





# **Lesson 5: Explore Addition and Subtraction**

• Let's add and subtract.

# Warm-up: Number Talk: Subtract 1 or 2

Find the value of each expression mentally.

• 6 **−** 1

• 6 − 2

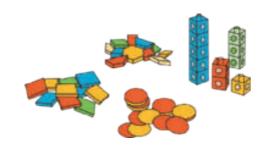
• 8 **−** 1

• 8 - 2

# 5.2: Centers: Choice Time

Choose a center.

#### **Counting Collections**



Number Race



Check it Off

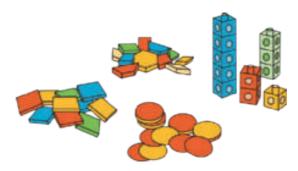


Five in a Row: Addition and Subtraction



#### **Section Summary**

Section Summary
We practiced counting collections.



We added 1 or 2 by counting on.

4 + 2

4 . . . 5, 6

We subtracted 1 or 2 by counting back.

6 - 2

6...5,4

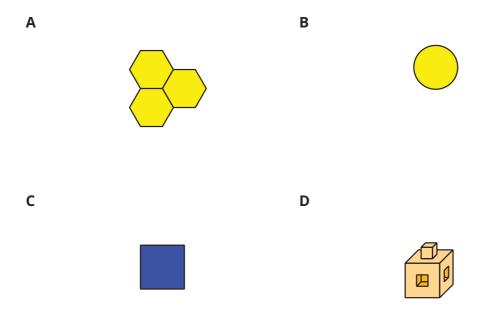
We played games with addition and subtraction within 10.

# **Lesson 6: Center Day 1**

• Let's play games to practice adding and subtracting.

# Warm-up: Which One Doesn't Belong: Math Tools

Which one doesn't belong?



#### 6.2: Centers: Choice Time

Choose a center.

#### **Counting Collections**



Number Race



Check it Off



Five in a Row: Addition and Subtraction



Find the Pair

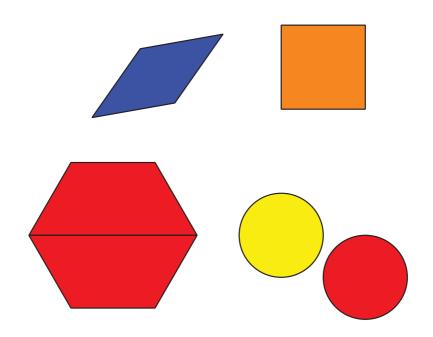


# **Lesson 7: Sort Math Tools**

• Let's sort objects and describe how many.

# Warm-up: Notice and Wonder: Math Tools

What do you notice? What do you wonder?



#### 7.3: Centers: Choice Time

Choose a center.

#### **Counting Collections**



Number Race



Check it Off



Five in a Row: Addition and Subtraction



Find the Pair

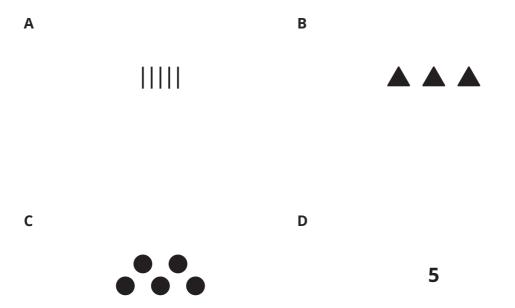


# **Lesson 8: Sort and Count Shape Cards**

• Let's sort shapes and show how many.

# Warm-up: Which One Doesn't Belong: Show Quantities

Which one doesn't belong?



#### 8.2: Show Your Sort

1. Show how you sorted the shape cards.

Be sure that someone else who looks at your paper can see how many shapes are in each category.

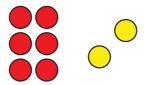
- 2. Complete the sentences:
  - a. The first category has \_\_\_\_\_\_ shapes.
  - b. The second category has \_\_\_\_\_\_ shapes.
  - c. The third category has \_\_\_\_\_ shapes.
  - d. There are \_\_\_\_\_ shapes all together.

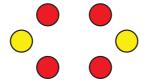
# Lesson 9: What is Your Favorite \_\_\_\_\_?

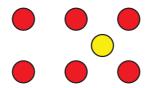
• Let's collect, organize, and show data.

# Warm-up: How Many Do You See: Dots and More Dots

How many do you see? How do you see them?







# 9.1: A Class Survey

What is your favorite		?
If you chose	, take a red cube.	
If you chose	, take a blue cube.	
If you chose	, take a yellow cube.	

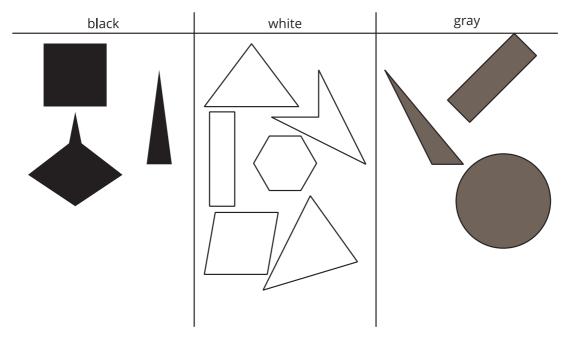
#### 9.2: Show Our Class Data

Show the survey data about our class's favorite

**Grade 1 Unit 1** Lesson 9

# **Section Summary**

Section Summary
We sorted objects and shapes.



We showed our sorts on paper in different ways.

black	white	gray
black	white	gray

black	white	gray
3	6	3

# **Lesson 10: Center Day 2**

• Let's add and subtract.

#### 10.2: Centers: Choice Time

Choose a center.

Five in a Row: Addition and

Subtraction



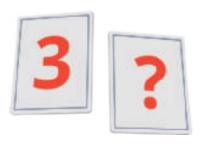
Check it Off



What's Behind My Back



Find the Pair

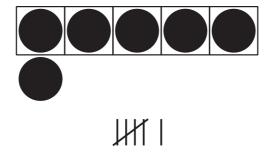


# **Lesson 11: Class Pet Surveys**

• Let's see what the data tells us.

# Warm-up: Notice and Wonder: Tally Marks

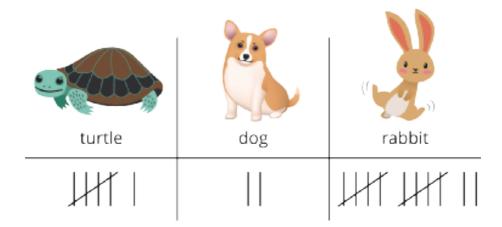
What do you notice? What do you wonder?



# 11.1: Jada's Class Pet Survey

Jada took a survey of her classmates and asked, "Which animal would make the best class pet?"

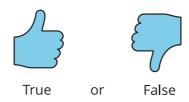
She showed their responses.



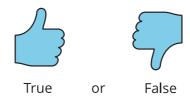
Decide whether each statement is true or false.

Be ready to explain why.

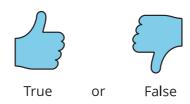
1. There are 12 votes for rabbit.



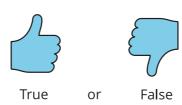
2. There are 18 votes all together.



3. 14 students voted for turtle or rabbit.

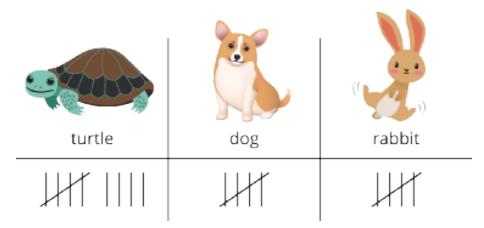


4. 8 students voted for dog or turtle.



# **11.2: Interpret Data About Class Pets**

Tyler asked the same survey question to his classmates. He showed their responses.



Write 3 things that you learned about Tyler's survey data from the representation.

2.	
_	
-	
_	
3.	
_	
-	
-	
-	

#### 11.3: Centers: Choice Time

Choose a center.

What's Behind My Back



Check it Off



Five in a Row: Addition and

Subtraction



Find the Pair





# **Lesson 12: How Many?**

• Let's answer questions about data.

### 12.1: Data Represented with Tally Marks

Our favorite \_\_\_\_\_

category 1	category 2	category 3

- 1. How many students chose category 1? \_\_\_\_\_
- 2. How many students chose category 2?\_\_\_\_\_
- 3. How many students chose category 3? \_\_\_\_\_
- 4. How many students chose category 1 or category 2? \_\_\_\_\_\_
- 5. How many students took this survey? \_\_\_\_\_

### **12.2: Data Represented with Numbers**

Our favorite \_\_\_\_\_

category 1	category 2	category 3

- 1. How many students chose category 1? \_\_\_\_\_\_
- 2. How many students chose category 2? \_\_\_\_\_
- 3. How many students chose category 3? \_\_\_\_\_
- 4. How many students chose category 1 or category 2? \_\_\_\_\_\_
- 5. How many students took this survey? \_\_\_\_\_

# **Lesson 13: Questions About Data**

• Let's ask and answer questions about data.

### Warm-up: Number Talk: Plus or Minus 1 or 2

Find the value of each expression mentally.

• 7 + 1

• 7 + 2

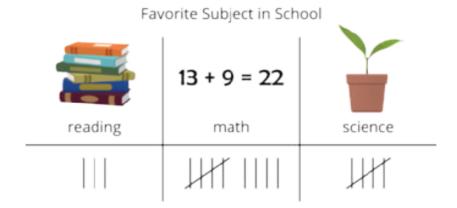
• 9 – 1

• 9 **-** 2

### 13.1: Can You Answer It?

Elena asked her classmates, "What is your favorite subject in school?"

She showed their responses below.

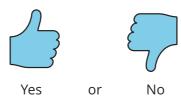


Han wrote questions about Elena's data.

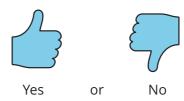
Decide whether each question can be answered using the data representation.

Be ready to explain why.

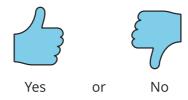
1. How many students said math is their favorite subject?



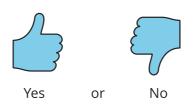
2. How many students said writing is their favorite subject?



3. Who said they like reading best?



4. How many students chose reading or science?



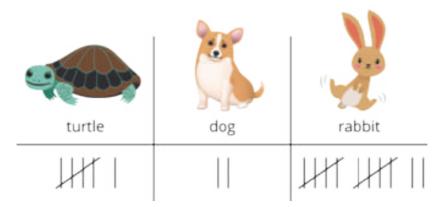
# 13.2: Ask Questions

Our favorite \_\_\_\_\_

category 1	category 2	category 3

### **Section Summary**

Section Summary
We looked at different ways to show data.
You can show data using tally marks.



You can show data using numbers.



We asked and answered questions about data.

- How many students want a turtle as a class pet? (6)
- How many students want a dog or a rabbit as a class pet? (14)
- How many students took the survey? (20)

Think of some questions you can ask your family at home and make a representation to show the data.

# **Lesson 14: Center Day 3**

• Let's work with data and practice adding and subtracting.

# Warm-up: Number Talk: Plus or Minus 2

Find the value of each expression mentally.

• 4 + 2

• 7 − 2

• 9 - 2

• 8 + 2

### 14.2: Centers: Choice Time

Choose a center.

Five in a Row: Addition and

Subtraction



Check it Off



Find the Pair



What's Behind My Back



Number Race

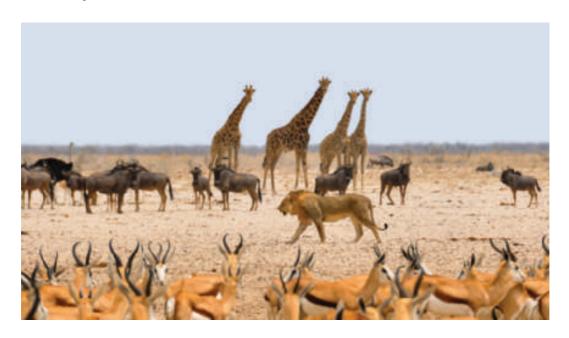


# **Lesson 15: Animals in the Jungle**

• Let's make a survey and collect and show data.

## Warm-up: Notice and Wonder: Wild Animals

What do you notice? What do you wonder?



# 15.1: Collect Survey Data

Let's survey our classmates.

1. Circle <b>1</b> question:
A. Which animal would you like to meet in real life?
B. If you could spend one day as an animal, which one would you choose?
C. Which animal would you like to spend vacation with?
D. Which animal would you like to talk to?
2. Animal choices:
0
0
0
3. Collect and record 10 responses.

# 15.2: Ask Our Own Questions

Let's come up with questions about our data and answer them.			

### 15.3: Share Data

Let's make posters to share what we learned from our surveys.

### **Section A: Practice Problems**

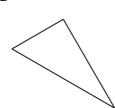
#### 1. Pre-unit

Color in the shapes that are triangles.

Α



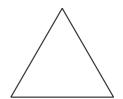
В



C



D



### 2. Pre-unit

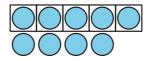
How many do you see?

a. \_\_\_\_\_





b. \_\_\_\_\_

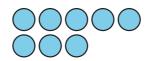


#### 3. Pre-unit

a. Match the pictures with the expressions.



6 + 2



5 + 3



8 - 3

### 4. How many do you see?

a.





b.





(From Unit 1, Lesson 1.)

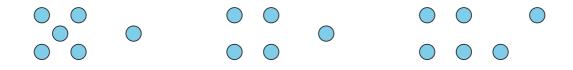
5. Circle the expression that matches the dots.



- A.2 + 2
- B.4 + 3
- C.3 + 3

(From Unit 1, Lesson 2.)

6. Circle the dots that match the expression: 5+1



(From Unit 1, Lesson 2.)

#### Adding, Subtracting, and Working with Data

7. Find the value of each sum.

a. 
$$3 + 1$$

$$b.3 + 2$$

$$c.7 + 2$$

$$d.7 + 1$$

(From Unit 1, Lesson 3.)

#### Adding, Subtracting, and Working with Data

8. Find the value of each difference.

a. 
$$10 - 1$$

b. 
$$10 - 2$$

c. 
$$5 - 2$$

$$d.6 - 1$$

e. 
$$8 - 2$$

(From Unit 1, Lesson 4.)

9. Show 2 ways you could use these cards in the game.



(From Unit 1, Lesson 5.)

#### 10. Exploration

#### Materials needed:

- Number cards 2–10
- Two dot cubes

#### Directions:

a. Choose a number card.

Show 2 numbers on the dot cubes that add to make your number.

b. Can you show another way?

### 11. Exploration

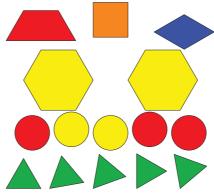
Partner A: Hold up some fingers on each hand.

Partner B: Fill in the blanks to show how many:

Switch roles and play again.

### **Section B: Practice Problems**

1. Here are some objects.



a. What are 2 categories you can use to sort these objects?	
b. What are 2 different categories you can use to sort these objects?	

(From Unit 1, Lesson 7.)

#### 2. Here are some objects.



a. Show how you could sort the balls into categories.

b. How many balls are in each category?

category 1:\_\_\_\_\_

category 2:\_\_\_\_\_

category 3:\_\_\_\_\_

(From Unit 1, Lesson 8.)

(From Unit 1, Lesson 9.)

3. How are these representations the same? How are they different?

breakfast	lunch	dinner
break	kfast ()()	
lu	unch	
dii	nner ()()()(	$\mathcal{L}$

### 4. Exploration

Gather data from the classroom or home.

Sort your data into categories.

Show how you sorted the data on paper.

#### 5. **Exploration**

There are 15 pattern blocks in a bag.

There are squares, triangles, and hexagons.

The chart shows how many squares are in the bag.

### Pattern Blocks in Bag

squares	triangles	hexagons
7	?	?

How many triangles could be in the bag?

How many hexagons could be in the bag?

Find as many solutions as you can.

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Core Knowledge MATHEMATICS<sup>™</sup>

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A comprehensive program for mathematical skills and concepts as specified in the **Core Knowledge Sequence** (content and skill guidelines for Grades K–8).

### Core Knowledge Mathematics<sup>™</sup>

units at this level include:

Adding, Subtracting, and Working with Data

Addition and Subtraction Story Problems
Adding and Subtracting Within 20
Numbers to 99
Adding Within 100
Length Measurements Within 120 Units
Geometry and Time
Putting it All Together

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