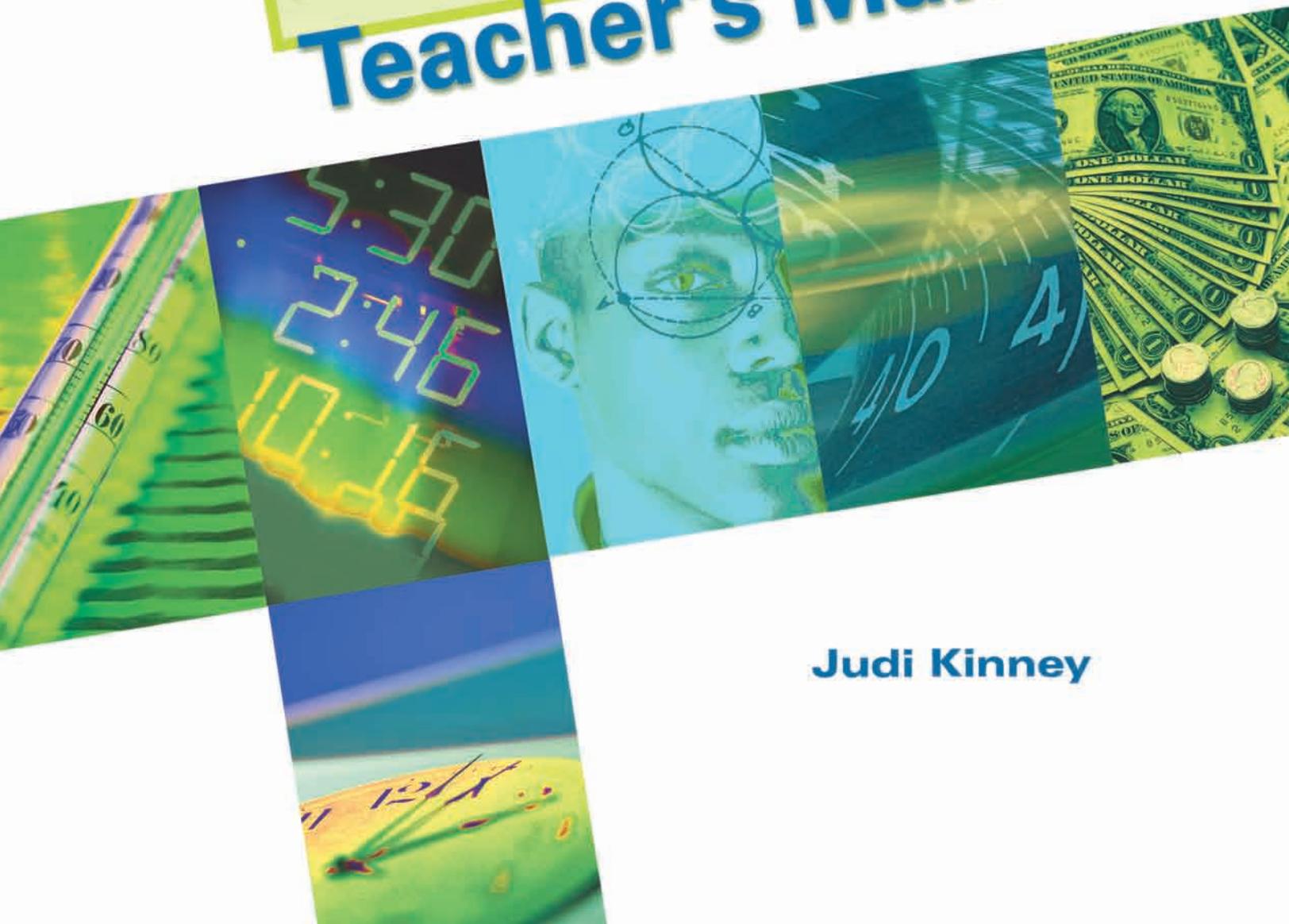


Attainment's

EXPLORE

math

Teacher's Manual



Judi Kinney

Explore Math Win/Mac CD

This CD contains printable PDFs of the Teacher's Guide and Student Workbook. You can review and print pages from your computer. The PDF (portable document format) file requires Acrobat Reader software.

If you have Acrobat Reader already on your computer, open the file ElectPort.pdf from the CD.

To install Acrobat Reader:

Windows: Run ARINSTALL.EXE on the CD.

Mac: Run Reader Installer on the CD.

After installation, run Acrobat Reader and open the file **EM_Manual.pdf** or **EM_Student.pdf** from the CD.



Explore Math Teacher's Manual

Judi Kinney, Author

Jo Reynolds, Graphic Design

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Attainment Company, Inc.

P.O. Box 930160 • Verona, Wisconsin 53593-0160 USA
Phone: 800-327-4269 • Fax: 800.942.3865
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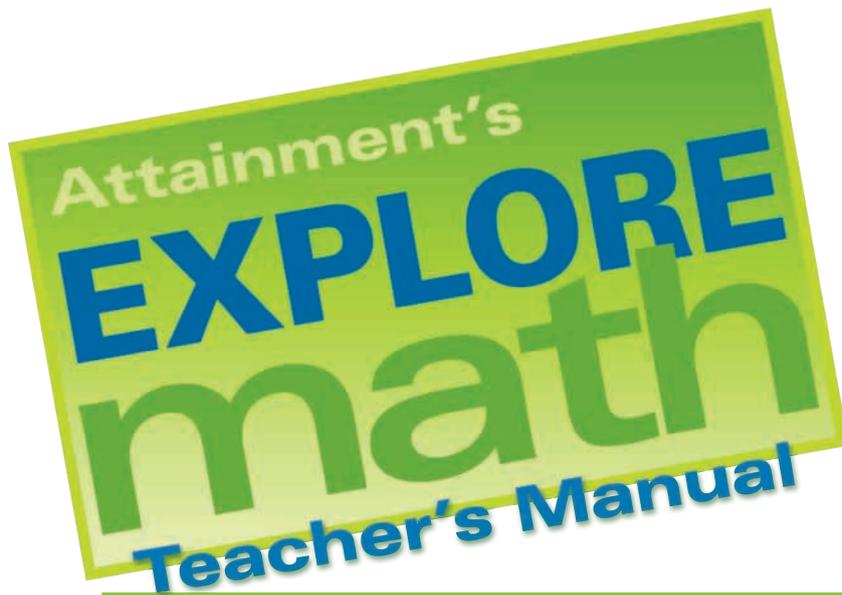


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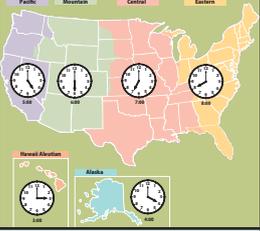
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Introduction

Attainment’s Explore Math books are designed to give students as many visual cues as possible to solve word problems. The books include a Teacher’s Manual with suggested lessons for each workbook page and a Student Workbook. Many of the word problems include addition and subtraction computations, fractions, as well as problems that simulate everyday or real-life situations. There are six chapters in the books, starting with vocabulary words and ending with fractions. The chapters are organized so that the teacher can select workbook pages that are specific to individual student needs. Four of the chapters, 0–12, 0–18, 0–100, and 0–1000 are arranged using a similar format. If a teacher has students at different academic levels, she can assign pages that cover a concept but are at different levels of difficulty. For example, using the time telling pages in each chapter, one student may need to solve time to the hour in Chapter 0–12 and another may need to solve time problems using elapsed time to the hour.

Telling Time Skills			
<p>The Mail Carrier</p> <p>Directions: Listen to your teacher read the problem. Draw hands on the analog clocks to solve the problem.</p> <p>1 Mr. Jackson starts his route at 8:00 a.m.</p> <p>2 He stops to eat a packed lunch 2 hours later. At what time does Mr. Jackson eat lunch?</p>   <p>Chapter 0–12 p. 38</p>	<p>Team Statistics</p> <p>Directions: Listen to your teacher read the problem. Draw hands on the analog clocks and solve the problem.</p> <p>1 Coach Lakowski finished the statistics for each player at 8:00 P.M.</p> <p>2 He started 4 hours earlier. What time did the coach start working?</p>   <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18</p> <p>Chapter 0–100 p. 75</p>	<p>All in a Day's Work</p> <p>Directions: Write the digital time on the clock he shows when Mr. Rodriguez leaves his store.</p> <p>1 Mr. Rodriguez punches in at 7:00 every day he works.</p> <p>2 He punches out 8 hours later. What time does he punch out?</p>  <p>Chapter 0–1000 p. 110</p>	<p>Time Zones 1</p> <p>Directions: If all 48 states are included, the United States of America has 4 different time zones. Read the clock. Use each time zone. Use this map to solve the problems on the next page.</p>  <p>Chapter 0–1000 p. 148</p>

The following is a chart to help the teacher find pages in the student workbook that follow similar skills in order to help address the various academic abilities of students found in a special education classroom.

Skill	Chapter 0-12	Chapter 0-18	Chapter 0-100	Chapter 0-1000
matching	p. 18	p. 54	p. 91	pp. 128-129
maps	pp. 19-20	p. 55	pp. 92	pp. 130-131
addition	pp. 21-28	pp. 56-61	pp. 94-99	pp. 132-137
missing addends	pp. 29-30	pp. 62, 63, 66	p. 100-101	pp. 138-139
subtraction	pp. 31-35	pp. 67-74	pp. 102-109	pp. 140-143
time (clock)	pp. 36-38	pp. 75-78	pp. 110-113	pp. 144-146 pp. 148-149
time (calendar)	pp. 39-43	X	X	p. 147
money	pp. 44-45	pp. 79-81	pp. 114-117	pp. 150-151
graphs	pp. 46-49	pp. 82-85	pp. 118-123	pp. 152-153
math riddles	pp. 50-51	pp. 86-87	pp. 124-125	pp. 154-155

The Teacher's Manual

The Teacher's Manual has lesson plans for all of the worksheets in the Student Workbook. Each lesson plan has a Materials list that tells what worksheets and other items are used for that lesson.

These lesson plans allow the teacher to teach the skill before assigning the worksheet. Most of the lessons take about fifteen to twenty minutes to teach. Teachers should preview the lessons before introducing the worksheet. **Some lessons incorporate more than one worksheet because they cover the same skill.** The teacher can assign all of the worksheets in the lesson or spread the lesson over several days.

The Teacher's Manual has an Answer Key to all of the worksheets.

The Student Workbook

There are six chapters in the Student Workbook. The directions will need to be read by the teacher; the pictures on the page are clues to help the student solve the word problems.

When reading the directions, point out important words that can help the student figure out how to solve the problem, e.g., “altogether” or “how many were left.” The teacher does not need to start at the beginning of the book and move sequentially through it to the end.

The **Vocabulary Chapter** consists of vocabulary words and worksheets to practice using the words found in the directions on the worksheets. The exercises in this chapter are designed to give students practice using important math words. Students can cut out and use the vocabulary word cards (pp. 6–9) as a word bank. If you need extra vocabulary word cards, make them by printing out from the PDF CD or by photocopying cards in the Appendix, pp. 161–166.

Chapters 0–12, 0–18, 0–100, and 0–1000 all follow a similar format. The format starts with a matching exercise, then some map work followed by addition and subtraction word problems. There are measurement problems, telling time problems (which focus mostly on elapsed time), money problems, and graphs to plot and interpret. At the end of each chapter are math riddles that involve learning how to predict an outcome, or use clues to solve a math riddle.

Number lines are at the bottom of the pages for Chapters 0–12 and 0–18. These number lines are a tool the students can use to solve the problems found in these two chapters. The **Hundreds Chart** at the beginning of Chapter 0–100 serves the same purpose. Students will need a **calculator** to solve or check the problems found in Chapter 0–1000.

The **Fractions Chapter** covers fractions of whole objects or fractions of sets. Again the teacher should select the pages which are appropriate for the students in the class.

NCTM Standards

Attainment’s Explore Math Workbook is aligned to many NCTM Standards.

Number and Operations

Students use their knowledge of numbers and operations to solve everyday or real-life problems. They learn how to use whole numbers and fractions. They develop an understanding that fractions are parts of a whole and parts of a set.

Algebra

Students use pictorial representations to solve conventional problems. Students learn to analyze patterns and complete them.

Measurement

Measurement activities teach students important, everyday real-life skills. Students learn to solve problems that include, length, width, capacity, weight, temperature, money, and time.

Data Analysis

Students learn to plot and to interpret information found on graphs. Students learn to ask questions or make predictions based upon the data presented.

Problem Solving

Students learn to apply math computational skills to real-life situations and word problem formats. They learn to use a variety of strategies to solve the word problems.

Communications

Students learn to use mathematical language and apply it to pictures, graphs and math computations. They are encouraged to discuss, read, and write to express mathematical ideas found in word problems.

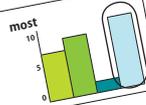
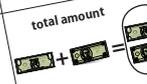
Connections

Students discover that mathematical ideas are connected and can be applied to real-life situations. Students are encouraged to use these concepts when relating findings to each other.

Chapter 1

Vocabulary

Vocabulary 3

left 	minus —
most 	plus +
remainder $12 - 9 = 3$	subtraction —
sum $14 + 3 = 17$	total amount 

Chapter 1 • Vocabulary

Vocabulary 4

addition $3 + 4 = 7$	altogether $3 + 2 = 5$
behind 	between 
counting back 9, 8, 7, 6 ...	counting on ... 5, 6
difference $8 - 4 = 4$	earlier (o) 

Chapter 1 • Vocabulary

Finding Addition Words

Date: _____

Directions: Use the word charts or vocabulary word cards and the addition words. Challenge: Solve.

Problem:

- Money in Hand**

What is the total amount?
show work:
- Home Town Team**

1st half	2nd half	total score
2	1	?

 What is the total score?
show work:
- Earning Money**
Kevin has 4 
He earned 3 more 
How many  did Kevin earn in all?
show work:
- On Sale!**
Melanie bought a t-shirt for \$6.00.
She bought a pair of sunglasses for \$5.00.
How much money did Melanie spend?
show work:

Subtraction Words

Date: _____

Directions: Use the word chart or vocabulary word cards and the subtraction words. Challenge: Solve.

Problem:

- Final Softball Score**

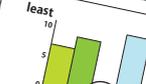
HOME	12
AWAY	9

 Find the difference in the two scores.
show work:
- Fishing**
Julie had 7 
She gave 5 away 
How many  does Julie have left?
show work:
- Roadside Stand**
There are 8 .
3  were sold.
How many  are left?
show work:
- Basketball**
Umberto wants to go to the game.
He has \$6.00.
The tickets cost \$4.00.
How much money does Umberto have left after he buys a ticket?
show work:

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

Chapter 1 • Vocabulary

Vocabulary 2

equals $6 + 5 = 11$ $7 - 3 = 4$	first 
(how many) in all $5 + 2 = 7$	in front of 
label $8 \text{ points} + 10 \text{ points} = 18 \text{ points}$	last 
later 	least 

Note: When the words "how many more" appear in the problem, count on or count back.

Chapter 1 • Vocabulary

Lesson 1

Objective

S. will read and define a set of vocabulary words.

Materials

- selected Word Card(s) (referenced in student workbook, pp. 6–9)
- dry board
- markers
- manipulatives

Procedure

1. Select a set of math vocabulary words for the students to learn.
2. Present one word at a time. Write the new word on the dry board.
3. Pointing under the word, read the word.
4. Next, point to the word and tell the students to read it with the teacher.
5. Demonstrate the meaning of the word using manipulatives.
6. Call on student volunteers to read the word independently and to define the word using the manipulatives.
7. Write the new word in a list of previously learned words, using the new word more than once.
8. Tell student volunteers to read the list of words.
9. Give a set of learned vocabulary Word Cards to each student to read and define.
10. If a student misses a word more than once, use the word as a new word to introduce in the next lesson.
11. When proficient, tell the students to use one of the blank cards and to define the word using their own words or illustrations.

Assign **selected vocabulary Word Cards**.

Vocabulary 4

word problem
Kevin has 4 [manipulatives].
He earned 3 more [manipulatives].
How many [manipulatives] did Kevin earn in all?

Vocabulary 3

left [illustration] minus —
most [bar graph] plus +

Vocabulary 2

equals
 $6 + 5 = 11$
 $7 - 3 = 4$
(how many) in all
 $5 + 2 = 7$
label
 $8 \text{ points} + 10 \text{ points} = 18 \text{ points}$
first [illustration]
in front of [illustration]
last [illustration]

Vocabulary 1

addition
 $3 + 4 = 7$
altogether
 $3 + 2 = 5$
behind [illustration] between [illustration]
counting back
9, 8, 7, 6 ... counting on
... 5, 6, 7, 8
difference
 $8 - 4 = 4$
earlier (one hour) [two clock faces]

6 Chapter 1 • Vocabulary

Lesson 2

Objective

Objective: S. will read a word(s) and state whether to add or subtract.

Materials

- selected Word Cards
- dry board
- markers
- teacher-made word problems on the board, with important math words underlined
- student word charts, pp. 10–11: Addition Words and Subtraction Words

Procedure

1. Point to and read the words on the Addition Words chart.
2. Lead students through the list again.
3. Tell students that each time they see one of the word(s) in a problem, they need to add.
4. Point to a problem. Read it. Point to the underlined word. Ask students what this word tells them to do.
5. Continue with other addition word problems.
6. When firm, introduce the Subtraction Words.
7. Follow the same procedure.
8. Tell students to use the charts to help them solve the word problems found in their workbook.
9. Blank lines are for words that either students or the teacher may want to add.

Note: Post **Addition Words** and **Subtraction Words** (photocopy or print out) to allow for easy student reference.

Addition Words +

Date: _____

Directions: When reading a word problem, these words tell you to add.

1. altogether
2. how many
3. in all
4. together
5. total
6. sum
7. _____
8. _____
9. _____
10. _____

▼ Note: Add more words if needed, using the blank lines.

Chapter 1 • Vocabulary

Subtraction Words -

Date: _____

Directions: When reading a word problem, these words tell you subtract.

1. difference
2. how many are left
3. left
4. remain
5. remainder
6. _____
7. _____
8. _____
9. _____
10. _____

▼ Note: Add more words if needed, using the blank lines.

Chapter 1 • Vocabulary

Lesson 3

Objective

S. will identify important position words in a math sentence.

Materials

- small manipulatives
- selected Word Cards
- pencils
- student worksheet, p. 12: Where Am I?

Procedure

1. Place a set of manipulatives in a row in front of the students.
2. Hold up a vocabulary card, e.g., **first**.
3. Read the word and point to the manipulative that is first in the row.
4. Lead students through the task.
5. Call on individual students to point to the first manipulative.
6. Continue with each additional word and until students are firm.

Assign the worksheet:
Where Am I?

Where Am I?

Date _____

Directions: the number or person that matches the underlined word.

1. the <u>first</u> number. 2, 4, 6, 8, 10, 12
2. the number that is in <u>between</u> . 10, 11, 12
3. the <u>last</u> number. 2, 3, 4, 5, 6
4. the person that is <u>behind</u> . 
5. the person <u>in front of</u> the line. 
6. the <u>last</u> person. 
7. the boy that is <u>between</u> 2 girls. 

12 Chapter 1 • Vocabulary

Lesson 4

Objective

S. will solve word problems using key words in the problem.

Materials

- selected Word Cards
- teacher-made word problems
- dry board
- markers
- posted addition and subtraction words
- pencils
- student worksheets, pp. 13–16: Finding Addition Words, Subtraction Words, Add or Subtract? 1 and 2

Procedure

1. Using the vocabulary cards, review reading the words.
2. Write a teacher-made word problem on the board using some of the learned words.
3. Underline the important addition and subtraction words.
4. Read the word problem.
5. Ask individual students to read the underlined word and tell whether to add or subtract.
6. Students can use word cards or the Addition and Subtraction word charts posted in the room or in their book to tell whether to add or subtract.
7. Continue until students are firm.

Assign worksheets:
Finding Addition Words, Subtraction Words, Add or Subtract? 1 and 2

Finding Addition Words

Date _____

Directions: Use the word charts or vocabulary word cards and \bigcirc the addition words. Challenge: Solve.

problem: **show work:**

1. **Money in Hand**  What is the total amount?

2. **Home Town Team**

1st half	2nd half	total score
2	1	?

What is the total score?

3. **Earning Money**

Kevin has 4    . He earned 3 more   . How many    did Kevin earn in all?

4. **On Sale!**

Melanie bought a t-shirt for \$6.00. She bought a pair of sunglasses for \$5.00. How much money did Melanie spend altogether?

1 2 3 4 5 6 7 8

Add or Subtract? 1

Date _____

Directions: 1. the important math words. 2. add or subtract 3. Challenge: Solve the problem.

problem: **show work:**

1. **Garage Sale**  Tamika wanted to sell some of her old . She had 12 . After the garage sale she had 5  left. How many  did she sell?
add subtract

2. **Collecting Old Nickels**  Michael has 6 . He bought 2 more  at a coin shop. How many  does he have altogether?
add subtract

3. **N.F.L. Cards**  Ethan has 8 . His grandmother gave him 2 more . How many  does Ethan have in all?
add subtract

4. **Home Game**

HOME	12
AWAY	9

Find the difference between the scores.
add subtract

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

Chapter 1 • Vocabulary 15

Subtraction Wo

Date _____

Directions: Use the word chart or vocabulary word cards and \bigcirc the subtraction words. Challenge: Solve.

problem: **show work:**

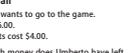
1. **Final Softball Score**

HOME	12
AWAY	9

Find the difference in the two scores.

2. **Fishing**  Julie had 7 . She gave 5 away . How many  does Julie have left?

3. **Roadside Stand**  There are 8 . 3  were sold. How many  are left?

4. **Basketball**  Umberto wants to go to the game. He has \$6.00. The tickets cost \$4.00. How much money does Umberto have left after he buys a ticket?

1 2 3 4 5 6 7 8 9 10 11 12 13

Chapter 1 • Vocabulary 14

Add or Subtract? 2

Date _____

Directions: 1. the important math words. 2. add or subtract 3. Challenge: Solve the problem.

problem: **show work:**

1. **Pick Your Own**  Harold and Maude picked  boxes of blueberries. Harold picked 4  boxes of berries. Maude picked 6  boxes of blueberries. How many boxes did they pick in all?
add subtract

2. **Lunch Count**  17  children ate hotdogs for lunch.  8  children ate hamburgers. How many more  children ate hotdogs?
add subtract

3. **Favorite Sports**  6  boys like to play football.  4  boys like to play basketball. How many more  boys like to play football than basketball?
add subtract

4. **N.B.A. Cards**  Jack has 10  N.B.A. cards. His aunt gave him 4 more  N.B.A. cards. How many  cards does Ethan have altogether?
add subtract

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

Chapter 1 • Vocabulary 16

Chapter 2

0-12

How Many Cookies Are in the Cookie Jar?

Date: _____

Directions: Mrs. Thompson baked cookies for her children's school lunch. Solve to find out how many cookies are left to put in the cookie jar.

- Mrs. Thompson baked 12 chocolate chip cookies.
- She put 2 cookies in Manny's lunch.
- She put 2 cookies in each twin's lunch.




Show work:

1	2	3	4	5
---	---	---	---	---

Sports Photographer

Date: _____

Directions: Mr. Gonzalez took photos of his work's high school volleyball games for the local newspaper. How many photos did he take in all?



Saturday Practice

Date: _____

Directions: Draw hands on the analog clock to match the digital time.

- Mary goes to swim practice Saturday mornings at 10:00.
- Stacy goes to practice her golf swing Saturday afternoons at 12:00.

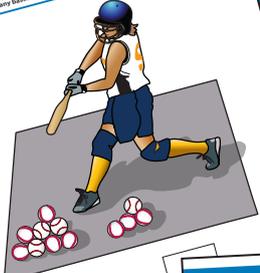




Batting Practice

Date: _____

Directions: Mary is practicing hitting balls before the game. How many baseballs did she hit altogether?



Answer: _____ + _____ = _____

Bonus: Circle the word in the problem that tells you what to do.

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

Bagging Baseball Equipment 1

Date: _____

Directions: Coach Peterson made a list of equipment he needed for an away game. Use the list and the equipment already by the bag to solve the problem on the next page.

Coach's List

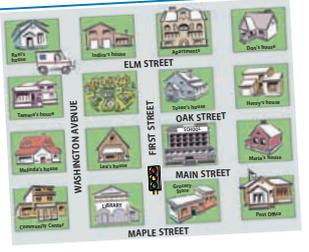
- 10
- 5
- 7
- 1
- 12




Neighborhood Map

Date: _____

Directions: Directions: Mrs. Jackson delivers mail in the neighborhood. Read the map and answer the questions below.



Answer:

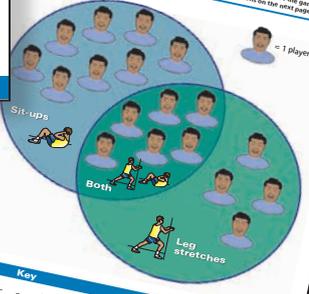
- Draw a path from the mail truck to the post office. _____ blocks
- Draw a path from the mail truck to the post office? _____ blocks
- How many blocks does she have to walk to school? _____ blocks
- Circle the intersection of Oak and First Street.
- Put an X on the streetlight.
- Ask someone to find a _____ on the map. Now ask her to go to the _____ How many blocks does she have to walk?

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

Warm-Up Exercises 1

Date: _____

Directions: Check Peterson's team uses some exercises to warm up before the game. Use the Venn diagram below to answer the questions on the next page.



Key:

- Sit-ups
- Leg stretches
- Both

Lesson 1

Objective

S. will match the number of bills to the total price of an item.

Materials

- sets of dollar bills to 12 dollars
- a variety of items with price tags on each
- pencils
- student worksheet, p. 18:
A Graphic Novel

Procedure

1. Students are to imagine going to a garage sale.
2. Assign student pairs, one to be a customer and the other the seller.
3. The seller lays various items in front of the customer to “buy.”
4. Give the customer a set of dollar bills up to twelve dollars to use to buy items.
5. The customer counts the money.
6. He selects an item to buy.
7. He decides if he has enough to buy the item selected.
8. If he has enough money, the customer counts the money that matches the price of the item and gives it to the seller. If the customer doesn’t have enough, he selects another item.
9. The seller counts the money to be sure that it matches the price of the item selected.
10. Students reverse roles.
11. Continue until the students are firm.

Assign the worksheet:
A Graphic Novel

A Graphic Novel

Date _____

Directions: Nicky bought a graphic novel at a garage sale.
○ the amount of  he needs to pay for the novel.



Bonus: ○ the least amount of money Nicky needs to pay for the novel.



1 2 3 4 5 6 7 8 9 10 11 12

Lesson 2

Objective

S. will locate objects on a map.

Materials

- a teacher-made map of a street or hallway in a building, etc., with homes/rooms numbered by two, drawn on a dry board
- markers
- pencils
- student worksheet, p. 19: Elm Street

Procedure

1. Point to the map and tell students to brainstorm why maps are important.
2. Make a list of students' ideas.
3. Point out special features on the teacher-made map.
4. Ask individual students to find specific information using the map.
5. Continue until all the important features have been identified.
6. Write down the numbers 2–12 counting by two.
7. Students practice counting and writing numbers by two until proficient.
8. Erase addresses or room numbers in random order and tell student volunteers to write the correct address or room number on the map using their knowledge of counting by two.

Assign worksheet: **Elm Street**

Elm Street

Date _____

Directions: Help the mail carrier deliver the mail.
Read the map of Elm Street and answer the questions below.

Hint: You need to count by 2 to find the missing number.



Answer:

1. Write the missing number on the mailbox.
2. ○ the blue house.
3. Put an **X** on the tallest house.
4. Put a **✓** on the house farthest from the park.

1 2 3 4 5 6 7 8 9 10 11 12

Chapter 2 • 0–12

Lesson 3

Objective

Using a map, S. will count how many blocks there are from one location to another.

Materials

- a teacher-made map of a neighborhood on a dry board
- colored markers
- pencils
- student worksheet, p. 20: Neighborhood Map

Procedure

1. Review list of reasons why maps are important.
2. Point out special features of the teacher-made neighborhood map.
3. Ask individual students to find certain places on the map.
4. Demonstrate how to draw a path from one place to another.
5. Count how many blocks are walked to go from one place to another.
6. Create scenarios where a student must draw a path from one place to another on the map.
7. The student counts the blocks that are walked.
8. Continue until the students are firm.

Assign the worksheet:
Neighborhood Map

Neighborhood Map

Date _____

Directions: Directions: Mr. Jackson delivers mail in the neighborhood. Read the map and answer the questions below.

Answer:

1. Draw a path from the mail truck to the post office. How many blocks from the mail truck to the post office? _____ blocks
2. Draw a path from Indira's house to the school. How many blocks does she have to walk to school? _____ blocks
3. ○ the □ intersection of Oak and First Street.
4. Put an X on the □ streetlight.
5. Ask someone to find a _____ on the map. Now ask her to go to the _____. How many blocks does she have to walk?

1 2 3 4 5 6 7 8 9 10 11 12

Lesson 4

Objective

S. will solve an addition word problem to twelve.

Materials

- teacher-made word problems
- dry board
- colored markers
- two small boxes
- a set of paper clips, coins, or other small manipulatives
- pencils
- student worksheet, p. 21: The Mail Carrier

Procedure

1. Write **altogether** on the board.
2. Write examples of word problems that students must solve to find out how many items there are altogether.
3. Tell students to circle the word altogether in the problems.
4. Lead students to discover that **altogether** means to add.
5. Place two boxes in front of the students.
6. Create several scenarios where students must count the manipulatives in each box and write an addition problem to solve how many items there are altogether, e.g., a bank clerk puts 6 coins in one box and 4 coins in another. How many coins are there altogether?
7. When firm, encourage students to create at least one problem using the same materials.

Assign the worksheet: **The Mail Carrier**

The Mail Carrier

Date _____

Directions: Mrs. Jackson is sorting the mail.
How many letters altogether has she sorted?



_____ + _____ =

Answer:
 what you do when you read the word altogether.

+ or -

1 2 3 4 5 6 7 8 9 10 11 12

Chapter 2 • 0–12

Lesson 5

Objective

S. will solve an addition word problem to twelve.

Materials

- a set of paper clips, coins, or other small manipulatives
- pencils
- student worksheet, p. 22: Loading the Mail Truck

Procedure

1. Review with students the meaning of the word altogether when found in a math word problem.
2. Create several scenarios where students must count two sets of objects and solve to find out how many there are altogether, e.g., The teacher corrected 6 math papers and 3 spelling papers. How many papers were corrected altogether?
3. When firm, encourage students to create at least one problem, using the same materials.

Assign the worksheet:
Loading the Mail Truck

Loading the Mail Truck

Date _____

Directions: Mr. O'Connor is loading big and little boxes on his truck for delivery.
How many big and little boxes must he load altogether?
Hint: Word problems must have labels in the answer.



Answer:

_____ + _____ =

Bonus: How many boxes would Mr. O'Connor have if he loaded only the little boxes?

1 2 3 4 5 6 7 8 9 10 11 12

Lesson 6

Objective

S. will solve an addition word problem to twelve.

Materials

- teacher-made word problems on the board with the word altogether in them
- a set of paper clips, coins, or other small manipulatives
- pencils
- student worksheet, p. 23: Batting Practice

Procedure

1. Write several word problems on the board.
2. Read the problems one at a time and ask student volunteers to find the word altogether in the problem. The student circles the word and states that the word altogether means to add.
3. Create several scenarios where students must count two sets of objects, and solve to find out how many there are altogether, e.g., Sara gave 6 sugar cookies to Derrick and 6 chocolate chop cookies to Mary. How many cookies altogether did she give away?
4. When firm, encourage students to create at least one problem using the same materials.

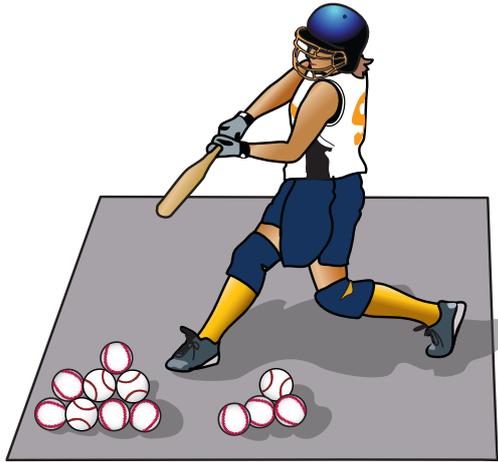
Assign the worksheet:

Batting Practice

Batting Practice

Date _____

Directions: Missy is practicing hitting balls before the game.
How many baseballs did she hit altogether?



Answer:

_____ + _____ =

Bonus: ○ the word in the problem that tells you to add.

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

Chapter 2 • 0–12

Lesson 7

Objective

S. will solve an addition word problem to twelve.

Materials

- teacher-made word problems
- sports pages from a newspaper
- dry board
- colored markers
- pencils
- student worksheet, p. 24: Sports Photographer

Procedure

1. Write the words **in all** on the board.
2. Write examples of word problems that students must solve to find out how many items there are **in all**.
3. Lead students to discover that **in all** means to add.
4. Using the newspaper photos, create several addition story problems that students must solve using the photos. Students must use addition words **in all** in the problem.
5. Encourage the students to use labels in their solutions to the problems.
6. Continue until students are firm.

Assign the worksheet:
Sports Photographer

Sports Photographer

Date _____

Directions: Mr. Gonzalez took photos of this week's high school  basketball and  volleyball games for the local newspaper.
How many photos did he take in all?



Answer:

_____ + _____ =

1 2 3 4 5 6 7 8 9 10 11 12

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Lesson 8

Objective

S. will solve an addition word problem to twelve.

Materials

- teacher-made scoreboard on a white board or chalkboard
- markers/chalk
- pencils
- student worksheet, p. 25: Who Won?

Procedure

1. Talk about how scores can be made in a school football game.
2. Create different scenarios for scores.
3. Demonstrate how to solve to find the final score by adding the scores for the first and second half of a game.
4. Provide several examples where student volunteers have to add to find the final score for each team.
5. Students must tell what team won the game.
6. Emphasize that word problems need labels, and that a short way or abbreviation for writing point is **pt.**
7. Continue until students are firm.

Note: Students could play a game such as bouncing a ball. Each student gets two chances to bounce the ball. Record the bounces. The student must stop when he misses a bounce. Add the first and second chances to find the total amount a student could bounce a ball. Compare results.

Assign the worksheet: **Who Won?**

Who Won?

Date _____

Directions: Add to find the final the scores. the winning team.

Team	1st	2nd	Final
Bulls	0	7	
Colts	3	6	



Show work:

Bulls	Colts
-------	-------

Hint: pts. is an abbreviation or short way for writing points.

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

Chapter 2 • 0–12

Lesson 9

Objective

S. will solve a word problem to twelve.

Materials

- teacher-made list or inventory of objects
- sets of manipulatives which match the teacher list
- a paper bag
- dry board
- markers
- pencils
- student worksheets, pp. 26-27:
Bagging Baseball Equipment 1 and 2

Bagging Baseball Equipment 1

Date _____

Directions: Coach Peterson made a list of equipment he needed for an away game. Use the list and the equipment already in the bag to solve the problems on the next page.

Coach's List

a. 10

b. 5

c. 7

d. 1

e. 12

1

2

3

4

5

6

7

8

9

10

11

12

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Procedure

1. Make a list on the board.
2. Place some items in the paper bag that match the teacher-made list.
3. Create a scenario where the items in the bag must total the number on the list, e.g., Point to the list and say, "The art teacher needs 10 paintbrushes." Count the paintbrushes in the bag. "She has 7 brushes; how many more brushes does she need to match the number on the list?" Count up from seven: "8, 9, 10." Say: "I counted three more brushes. Seven plus three equals ten. The art teacher needs 3 more brushes." Place the 3 brushes in the bag.
4. Lead the students through the problem.
5. Call on individual students to solve the problem.
6. Continue until all of the objects on the list have been used.

Assign the worksheets:

Bagging Baseball Equipment 1 and 2

Bagging Baseball Equipment 2

Date _____

Directions: Solve to find out how many more of each item Coach Peterson needs to pack for the game. Show your work.

Hint: Remember to label your answers.

<p>1 How many more ?</p>	<p>2 How many more ?</p>
<p>3 How many more ?</p>	<p>4 How many more ?</p>
<p>5 How many more ?</p>	<p>6 Create your own problem.</p>

1

2

3

4

5

6

7

8

9

10

11

12

27
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Lesson 10

Objective

S. will solve a word problem using column addition.

Materials

- teacher-made beanbag toss, magnetic dartboard, or other game-like board
- dry board
- markers
- pencils
- student worksheet, p. 28: Throwing Darts

Procedure

1. Draw a beanbag or dartboard, or use a magnetic board.
2. Create several scenarios using the game board by shading the numbers until three numbers have been used.

For example: Margaret threw a dart and it landed on the number 3, the next dart landed on 5, and the final dart landed on 3. What was her total score? Add the three numbers to find the sum total.

3. Lead the students through the problem.
4. Continue until the students are firm.

Assign the worksheet:

Throwing Darts

Throwing Darts

Date _____

Directions: Jesse throws darts in the recreation room. How many points altogether did he make?

_____ + _____ + _____ = pts.

Bonus: Create another word problem using this page. Share your problem.

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

Lesson 11

Objective

S. will solve a word problem using column addition with a missing addend.

Materials

- teacher-made column addition problems with one missing addend
- dry board
- markers
- sets of dollar bills to 12 dollars
- pencils
- student worksheets, pp. 29-30: Shooting Baskets and Tip Money

Procedure

1. Write several column addition problems on the board with a missing addend in each problem.
2. Point to a box with the missing addend.
3. Create a scenario for the problem.
4. Demonstrate how to solve the problem.
5. Lead the students through the process of solving the problem.
6. Continue until students are firm.

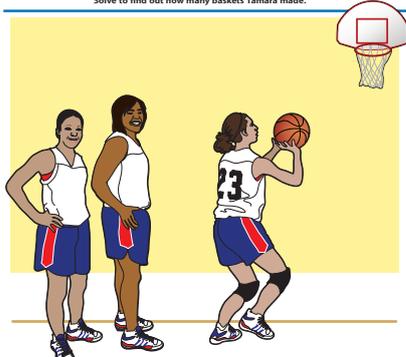
Assign worksheets:

Shooting Baskets and **Tip Money**

Shooting Baskets

Date _____

Directions: Each player can shoot for the basket until she misses. Solve to find out how many baskets Tamara made.



Becky Sasha Tamara Total

3 + 2 + = 8 

Bonus: Create your own problem for some one else to solve.

1 2 3 4 5 6 7 8 9 10 11 12

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Tip Money

Date _____

Directions: Raven earned \$6.00 in tips from her first three customers. Solve to find out how much money customer 1 tipped Raven.

Hint: Remember to use the \$ and . in your problem.

1. Customer 1 	2. Customer 2 
3. Customer 3 	4. Total amount: 

Show work:

1 2 3 4 5 6 7 8 9 10 11 12

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Lesson 12

Objective

S. will solve a subtraction word problem using money to twelve cents.

Materials

- teacher-made list of items and prices for sale
- dry board
- markers, set of 12
- pennies
- pencils
- student worksheet, p. 31: Day-Old Bake Sale

Procedure

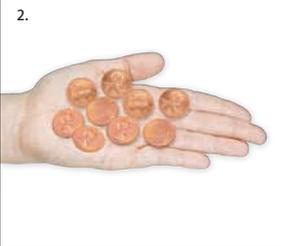
1. Write a list of items and prices on the board.
2. Give a set of pennies to a student and ask her to count the pennies.
3. The student must “purchase” something from the list that does not exceed the amount of money in her hand.
4. The student purchases the item by giving the teacher the total amount of pennies needed to buy the item.
5. The student counts how much money she has left.
6. The student writes out the problem using cents as a label.
7. Repeat until the students are firm.

Assign worksheet:
Day Old Bake Sale

Day-Old Bake Sale

Date _____

Directions: Solve to find out how much money Roberta has left in her hand.

	2. 
3. 	4. 

Show work:

_____ ¢ - _____ ¢ = ¢

Bonus: Create your own money problem using pennies.

1	2	3	4	5	6	7	8	9	10	11	12
---	---	---	---	---	---	---	---	---	----	----	----

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