Interactive Notebooks

MATH

CORRELATED TO
Current State Standards
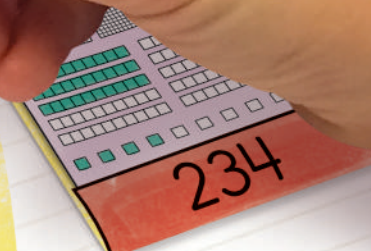CARSONDELLOSA.COM

- *Ideal for organizing information and applying learning*
- *Perfect for addressing the needs of individual learners*
- *Includes step-by-step instructions for each page*
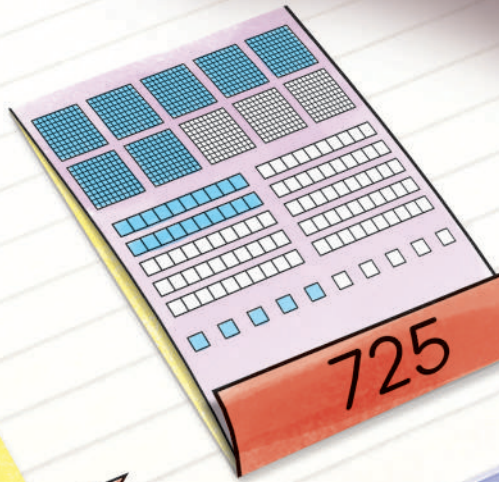- *Great for introducing new math topics*

Reading and Writing N...

■ = 1...

234

500+50

five hundred fifty

725

550

Solving Word Problems

Introduction

Give each student a word problem, such as *Last year Juan had 20 fish. Now, Juan has 16 fish. Yesterday, he gave 5 of them to his cousin. How many fish does Juan have left?* Read the problem aloud. Ask students to circle all of the numbers in the problem. Have them study the circled numbers and place an X on any numbers they do not need. Ask students if this is a subtraction or addition problem. Have them circle the clues or key words (*left*). Then, have students draw pictures to represent the parts of the word problem. Finally, have them write number sentences and solve for the answer.
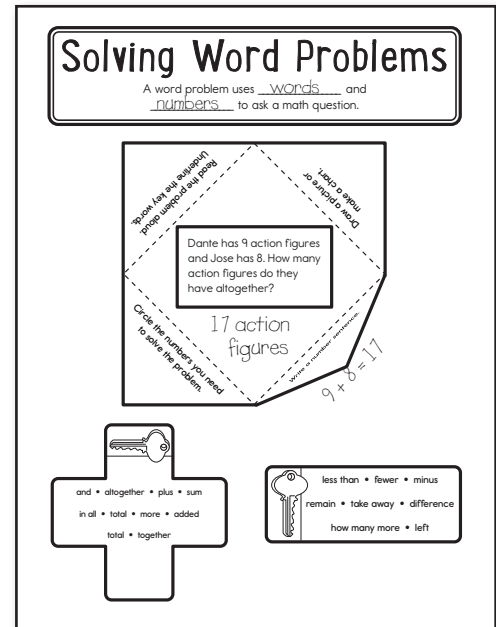
Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Solving Word Problems pages.

2. Cut out the title and glue it to the top of the page.

3. Complete the sentence. (A word problem uses **words** and **numbers** to ask a math question.)

4. Cut out the word problem strategies flap book. Apply glue to the back of the center square and attach it below the title so that it is oriented as a square.

5. Cut out the word problem. Glue it to the middle section of the flap book.

6. Read the word problem and follow the strategies on each corner flap. Under each flap, write the information gained or explain how this strategy helped.

7. Cut out the plus and minus signs and glue them below the flap book. Discuss the key words on each and how they can be used as clues when solving word problems. Find the key word in the word problem and highlight it.

8. Use all of the information you gathered about the problem to solve for the answer. Write the answer in the center of the flap book.
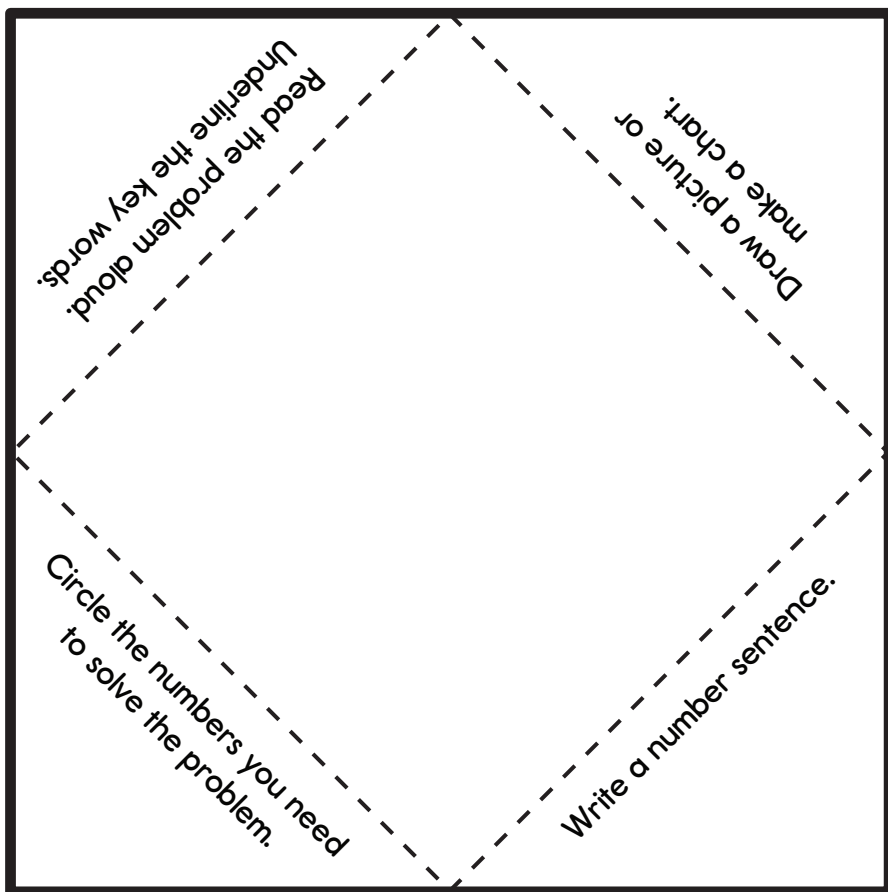
Reflect on Learning

To complete the left-hand page, have students write their own word problems. Have students exchange notebooks with partners and solve each other's word problems.

Solving Word Problems

A word problem uses _____ and _____ to ask a math question.

Read the problem aloud.
Underline the key words.

Draw a picture or make a chart.

Circle the numbers you need to solve the problem.

Write a number sentence.

🔑 less than • fewer • minus

remain • take away • difference

how many more • left

🔑 and • altogether • plus • sum

in all • more • added

total • together

Dante has 9 action figures and Jose has 8. How many action figures do they have altogether?
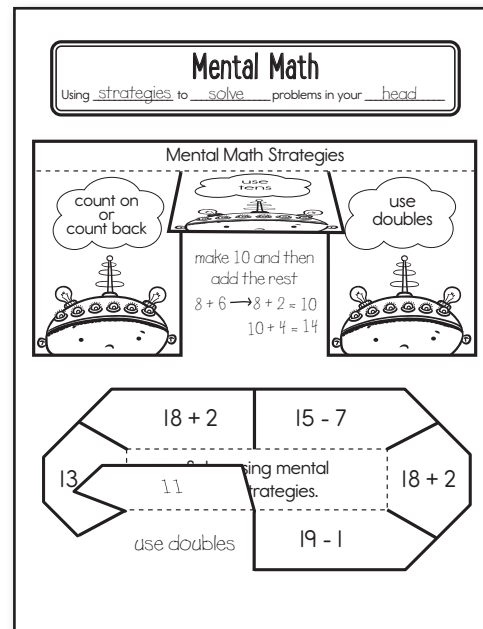
Mental Math

Introduction

Write the problem *18 – 9* on the board. Ask students to solve the problem in their heads without using paper or fingers. Ask students who found the correct answer to explain how they solved the problem. Write their strategies on the board. Tell students that there are many different strategies to solve math problems.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Mental Math pages.

2. Cut out the title and glue it to the top of the page.

3. Complete the definition. (Using **strategies** to **solve** problems in your **head**)

4. Cut out the *Mental Math Strategies* flap book. Cut on the solid lines to create three flaps. Apply glue to the back of the top section and attach it below the title.

5. Discuss the strategy on each flap with a partner. Then, write an explanation of each strategy in your own words under the flap.

6. Cut out the octangonal flap book. Cut on the solid lines to create six flaps. Apply glue to the back of the center section and attach it to the bottom of the page.

7. Mentally solve each problem using one of the three strategies and write the answer on the underside of the flap. Under the flap, write which strategy you used to solve it.
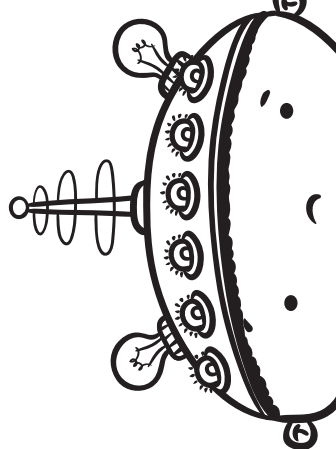
Reflect on Learning

To complete the left-hand page, have students write three addition problems and three subtraction problems. Have students exchange notebooks with partners and place the notebooks facedown. Set a timer. Have students quickly flip over their notebooks and use strategies to mentally solve each problem, one at a time. Have students keep practicing until they can solve the problems in five seconds or less.
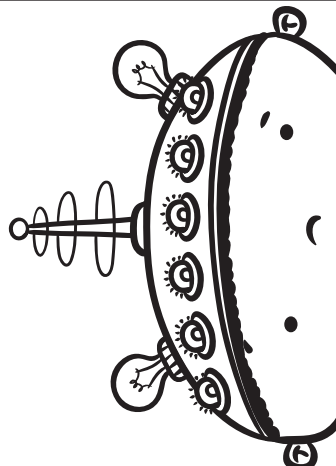
Mental Math

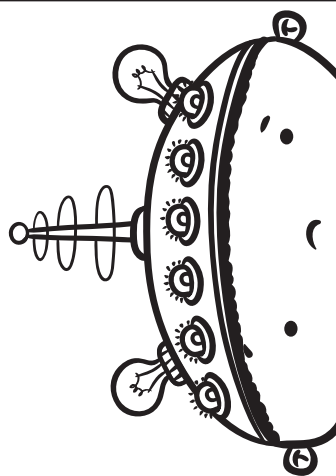Using _____ to _____ problems in your _____

Mental Math Strategies

use doubles

use tens

count on or count back

18 + 2

15 - 7

Solve using mental math strategies.

19 - 1

18 + 2

5 + 6
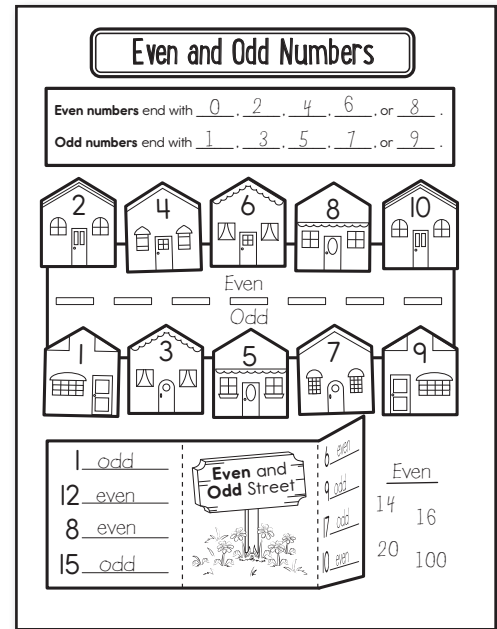
13 - 8

Even and Odd Numbers

Introduction

Give each student a handful of linking cubes. Tell students to count out 8 cubes and line them up in equal groups of 2. Ask them if there are any cubes left over from the set of 8. Write the number *8* on the board and label it *even*. Then, ask students to count out 11 cubes and line them up in equal groups of 2. Ask them if there are any cubes left over. Write the number *11* on the board and label it *odd*. Have students count out other numbers on their own and volunteer whether they are odd or even.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Even and Odd Numbers pages.

2. Cut out the title and glue it to the top of the page.

3. Cut out the *Even numbers end with* piece and glue it below the title.

4. Complete the explanation (Even numbers end with **0**, **2**, **4**, **6**, or **8**. Odd numbers end with **1**, **3**, **5**, **7**, or **9**.)

5. Cut out the street and glue it below the *Even numbers end with* piece, leaving enough space to glue houses above it. Write *Even* on the top half of the street and *Odd* on the bottom half.

6. Cut out the houses. Glue them to the correct sides of the street. Add details such as chimneys, trees, bushes, people, etc., as desired.

7. Cut out the *Even and Odd Street* flap book. Apply glue to the back of the center section and attach it to the bottom of the page.

8. In the blank beside each number, write *odd* or *even*. Under the left flap, label the space *Odd*. Write more odd numbers under the flap. Under the right flap, label the space *Even*. Write more even numbers under the flap.

Reflect on Learning

To complete the left-hand page, have each student draw a chart with numbers from 1 to 20. Ask them to color all of the odd numbers blue and the even numbers yellow. Finally, have each student write a sentence below the chart that describes the pattern of the odd and even numbers, such as *All of the yellow numbers end in 0, 2, 4, 6,* or *8.*

Even and Odd Numbers

Even numbers end with _____ , _____ , _____ , _____ , or _____ .

Odd numbers end with _____ , _____ , _____ , _____ , or _____ .

5   4   3   2   1

6   7   8   9   10

1 _____	**Even** and **Odd** Street	6 _____
12 _____		9 _____
8 _____		17 _____
15 _____		10 _____

Arrays

Introduction

Give each student a handful of linking cubes. Have students make 3 rows of 3 where the rows and columns are equally spaced. Tell students that this pattern is called an *array*. Ask students to count the cubes. Then, ask students to note that there are 3 rows of 3. Ask students to add 3 plus 3, and then add 3 more. Discuss which method was faster and easier. Explain that arrays can make it easier to solve multiplication and division problems. Repeat this process up to 5 rows of 5.
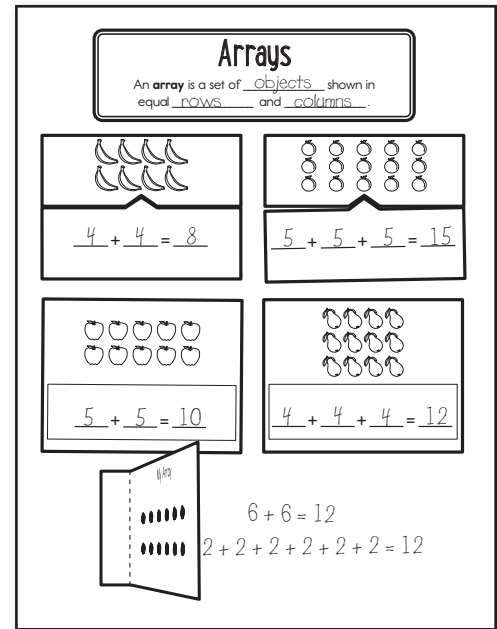

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Arrays pages.

2. Cut out the title and glue it to the top of the page.

3. Complete the definition of an array. (An array is a set of **objects** shown in equal **rows** and **columns**.)

4. Cut out the four puzzle pieces. Glue the pieces with arrays below the title. Look at each array and discuss the related addition sentence. Glue the correct puzzle piece below each one. Complete the number sentences ($4 + 4 = 8$ and $5 + 5 + 5 = 15$).

5. Cut out the apples and pears pieces and glue them below the puzzles. Complete the addition sentences ($5 + 5 = 10$ and $4 + 4 + 4 = 12$).

6. Cut out the *My Array* flap. Apply glue to the back of the left section and attach it to the bottom of the page.

7. Draw an array on top of the flap. Under the flap, write two related addition sentences (rows + rows and columns + columns). Discuss how no matter which way you add, the answers are still the same.
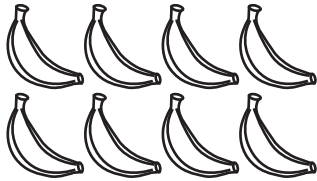
Reflect on Learning

To complete the left-hand page, have students make their own arrays with up to 25 linking cubes. Students should write two related addition sentences to match each array.
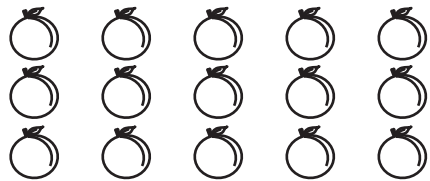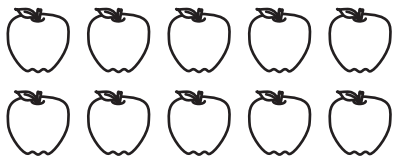
Arrays

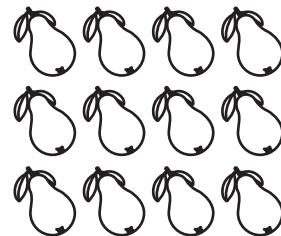An **array** is a set of _____ shown in equal _____ and _____ .

____ + ____ = ____

____ + ____ + ____ = ____

____ + ____ = ____
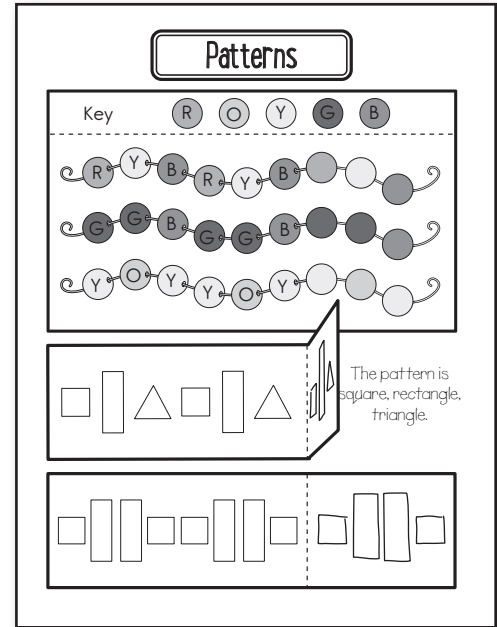
____ + ____ + ____ = ____

My Array

Patterns

Introduction

Draw a pattern of alternating stars and circles. Ask students to name the shapes aloud, starting at the left and moving right. Ask if they noticed a part that repeats. Explain that this is called a *pattern*. Have a student come to the board and circle the set of objects that repeat. Ask another student to draw the next object in the pattern. Repeat the activity with other patterns. Finally, extend this lesson with patterns that use motions and sound, such as clapping and tapping.

Creating the Notebook Page

Guide students through the following steps to complete the right-hand page in their notebooks.

1. Add a Table of Contents entry for the Patterns pages.

2. Cut out the title and glue it to the top of the page.

3. Cut out the *Key* flap. Apply glue to the back of the top section and attach it below the title.

4. Color the beads with the correct colors to complete the key in the top section (red, orange, yellow, green, and blue). Then, use the key to color the labeled beads of the first strand of beads. Discuss the pattern and continue it on the unlabeled beads. Repeat the process with all three strands.

5. Under the flap, draw a string of 9 beads. Color the first 6 beads in a pattern. Exchange notebooks with partners. Identify the pattern. Then, use crayons to extend the pattern.

6. Cut out the two shape flaps. Apply glue to the back of the left sections and attach them to the bottom of the page.

7. Identify the pattern on each flap. Then, draw shapes to extend the pattern. Under the flaps, explain the patterns.

Reflect on Learning

To complete the left-hand page, have students draw several patterns created with objects, shapes, or colors. Have students exchange notebooks with partners and extend each other's patterns.

Patterns

Key   R   O   Y   G   B

R Y B R Y B ◯ ◯ ◯

G G B G G B ◯ ◯ ◯

Y O Y Y O Y ◯ ◯ ◯