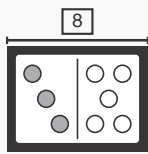


Name \_\_\_\_\_

# Understand Addition and Subtraction

Dear Family,

Your child is learning about addition and subtraction. In this topic, your child will learn to solve problems by adding or subtracting and writing addition and subtraction equations. These are important foundational skills that will allow your child to communicate mathematical ideas and reasoning. These skills will also allow your child to analyze the information given in word problems and find solutions. Your child will learn how to use models to solve word problems.



Each side of the mat represents parts of a whole. The number in the box above the mat represents the total. You can complete the model based on information given in a word problem. When one of the parts is missing, write a subtraction equation or an equation with an unknown addend. When the total is missing, write an addition equation.

## Writing Addition Equations

**Materials** 8 small objects, paper, pencil

Take 5 small objects, such as paper clips or buttons, and divide them into 2 groups. Have your child write 2 addition equations for the objects. Then allow your child to divide the objects into 2 different groups. Write 2 addition equations for the objects and have your child help you decide if they are correct. Repeat the activity with 6 and 8 objects.

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## Observe Your Child

Discuss how the objects are good tools to model the equations. Then discuss other ways to model the equations.

Name \_\_\_\_\_

# Fluently Add and Subtract Within 10

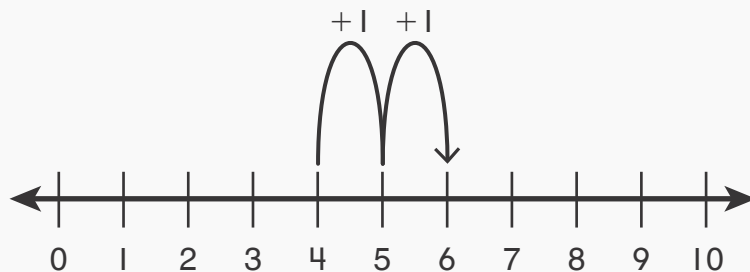
Dear Family,

Your child is learning about addition and subtraction using numerals to 10. In this topic, your child will learn to count on to solve addition problems and count back to solve subtraction problems. Your child will also learn about the relationship between addition and subtraction.

## Count On to Add

Pat puts 4 potatoes in a pot. Then he adds 2 more potatoes to the pot. How many potatoes are in the pot now?

$$4 + 2 = \underline{6}$$



6 potatoes

## Count On to Add

**Materials** 10 small objects, paper, pencil

Place between 1 and 7 small objects on a table. Have your child count the objects. Then place another 1, 2, or 3 objects on the table. Have your child count on to find the total number of objects on the table. Then have him or her practice writing addition equations that correspond to the number of objects on the table.

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## Observe Your Child

Include a number line with the previous activity. Have your child solve the equations using the number line.

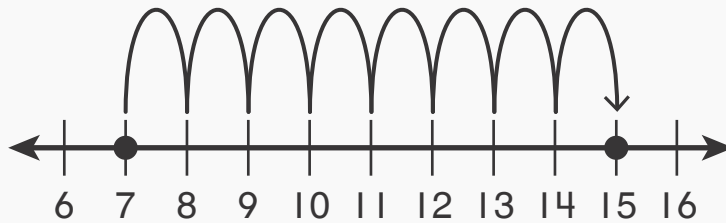
Name \_\_\_\_\_

# Addition Facts to 20: Use Strategies

Dear Family,

Your child is learning about strategies to use to add to 20. In this topic, he or she will learn several strategies for finding sums. Some of the strategies include counting on, making ten, making doubles, and adding 1 or 2 to doubles. An open number line can be used to count on. Your child counts on by “hopping” up the number line.

For example, the number line below shows how to solve  $7 + 8$ . If you start at 7 and hop 8 times to the right, you land on 15. So,  $7 + 8 = 15$ .



## Counting On to Add

**Materials** paper, pencil

Draw a number line showing numerals 1–20. Write the following equation on the paper:  $6 + 8 = ?$ . Demonstrate how to count on using the number line by starting at 6 and hopping 8 times to the right. Ask your child: “What number did I land on?” Repeat the exercise using the following problem:  $7 + 6$ . This time, have your child practice counting on using the number line.

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## Observe Your Child

Write the following equation on the paper:  $6 + 6 = 14$ . Ask your child if he or she agrees with your answer. Have your child use a number line to solve the problem and determine whether your equation is correct or incorrect.

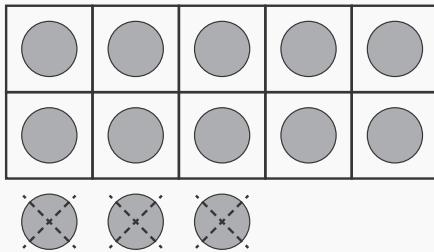
# Subtraction Facts to 20: Use Strategies

Dear Family,

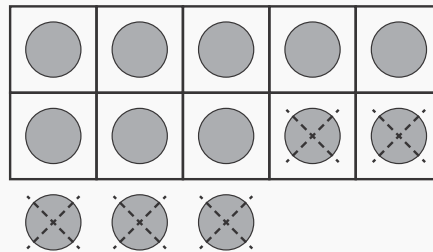
Your child is learning to use different strategies to solve subtraction facts to 20. One of the strategies your child will use is Make 10 to Subtract. This strategy helps break a subtraction problem into two simpler problems. The subtraction strategies in this topic will also help your child communicate mathematical ideas and solve word problems.

## Make 10 to Subtract

You can make 10 to help find  $13 - 5$ .  
First subtract 3 to make 10.  
 $13 - 3 = 10$



Then subtract 2 more because  $3 + 2 = 5$ .  
You need to subtract 5 altogether.



$10 - 2 = 8$   
So,  $13 - 5 = 8$ .

## Make 10 to Subtract

**Materials** Pennies, index cards, paper bags, paper and pencil

Draw a blank ten-frame on paper. Write the numbers 11–15 on one set of index cards and 6–10 on another set. Place each set of cards in a paper bag. Have your child choose one number from each bag.

Have your child write a subtraction equation using a number from the first bag and then a number from the second bag. Have him or her solve the problem with the ten-frame and pennies.

## Observe Your Child

Discuss how the ten-frames and the pennies were good tools to help solve the problem above.

Name \_\_\_\_\_

# Work with Addition and Subtraction Equations

Dear Family,

Your child is learning to work with addition and subtraction equations. In this topic, he or she will learn strategies to solve multistep word problems and problems with three addends. Your child will also learn to find unknown, or missing, numbers in an equation. The following example shows how to find a missing number to make an equation true.

## Find Missing Numbers to Make a True Equation

Fill in the missing number that makes the equation true.

$$12 - \underline{\quad} = 5 + 3$$

**Step 1** Solve the side of the equation without the unknown number.

$$5 + 3 = 8$$

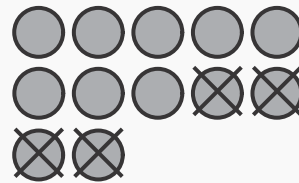
**Step 2** Rewrite the equation with this sum.

$$12 - \underline{\quad} = 8$$

**Step 3** You can use counters to solve the equation.

$$12 - \underline{\quad} = 8$$

So,  $12 - 4 = 5 + 3$ .



## Find the Missing Number

**Materials** paper; pencil; beans, paper clips, or other small objects

Write an equation that includes a missing number. For example,  $11 + \underline{\quad} = 18$ . Have your child model solving the equation using small objects. Repeat this with an equation that has expressions on both sides of the equal sign, such as the one modeled in the example above.

---

## Observe Your Child

Write the following incorrect equation:  $5 + 4 = 14 - 6$ . Have your child explain why the equation is not true. Allow him or her to use small objects, if needed, to explain his or her reasoning.

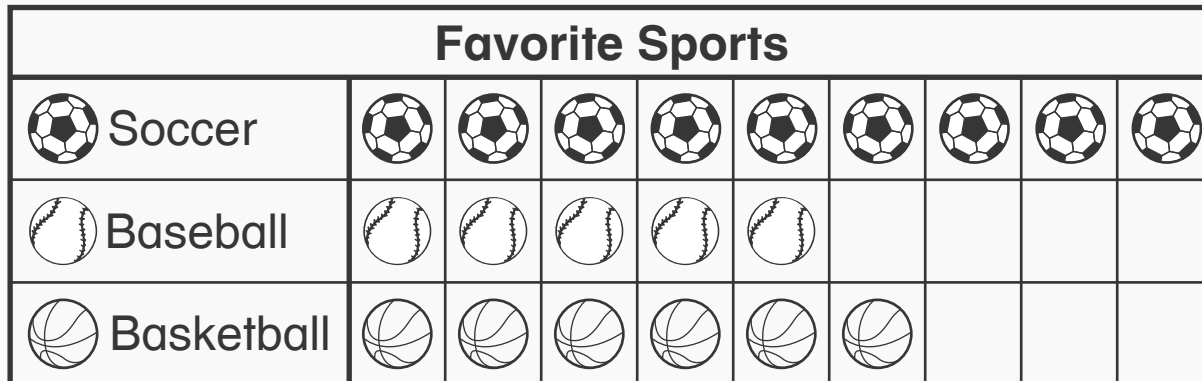
Name \_\_\_\_\_

# Represent and Interpret Data

Dear Family,

Your child is learning to organize information in different types of graphs. In this topic, he or she will learn to use tally marks and make picture graphs.

## Using Picture Graphs



This is a picture graph about the favorite sports of students. You can use it to answer questions such as this: How many students chose baseball as their favorite sport? Count the number of baseballs in the second row. There are 5 baseballs, which means 5 students chose baseball as their favorite sport.

## Using Picture Graphs

**Materials** Paper and pencil

Draw a picture graph about your family's favorite meals and work with your child to complete it. Ask your child a question about the information in the graph. Have him or her explain how to find the answer to the question. Then repeat the activity by having your child ask you a question about the graph.

---

## Observe Your Child

As you and your child ask each other questions, be sure your child is using precise mathematical terms, such as *tally chart* and *picture graph*.

Name \_\_\_\_\_

# Extend the Counting Sequence

Dear Family,

In this topic, your child will learn strategies to count beyond 100. These strategies include counting by 10s, counting on a number chart to 120, and counting on an open number line.

The examples below demonstrate how to count forward by 1s and by 10s using part of a 120 chart.

Count by 1s from 102.

Look in the same row. Move to the right  
1 square each time.

102, 103, 104, 105

Count by 10s from 72.

Look in the same column. Move down  
1 row each time.

72, 82, 92, 102, 112

71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

## Using the 120 Chart

**Materials** 120 chart, different highlighters or crayons

Pick a number on the chart. Ask your child to tell you the number that comes before and the number that comes after. Have him or her count by 1s, going forward 5 numbers. Pick another number and have your child count by 10s.

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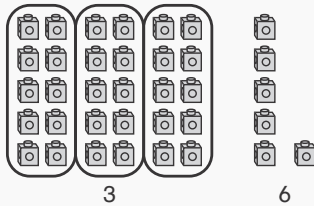
## Observe Your Child

Have him or her use a different-colored highlighter or crayon to shade the numbers each time he or she counts by 10s. This will make it easy to analyze the pattern.

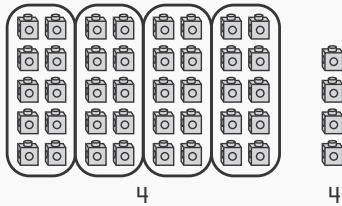
# Understand Place Value

Dear Family,

Your child is learning that two-digit numbers represent amounts of tens and ones. In this topic, he or she will learn to count two-digit numbers in groups of 10 with some ones left over. This will provide a foundation for future topics involving place value.



You can think of a number as being made up of tens and ones.  
36 is the same as 3 groups of 10 and 6 ones.



You can write a number by looking at the groups of tens and what is left over.  
44 is the same as 4 groups of 10 and 4 ones.

## Writing Numbers with Groups of 10

**Materials** 30 pennies or counters, paper and pencil

Have your child pick a number between 20 and 30. Have him or her count out pennies that equal that number. Then have your child group the pennies into groups of 10. Have your child write the number of groups of 10 and the number of ones left over. Repeat the activity with another number.

## Observe Your Child

Point out objects in your child's environment and have him or her tell you the number of tens. For example, point out the cars in a parking lot and have your child tell you how many groups of 10 there are.



Name \_\_\_\_\_

# Compare Two-Digit Numbers

Dear Family,

Your child is learning to compare numbers. He or she will learn to use a hundred chart to show the relationships of 1 more than, 1 less than, 10 more than, and 10 less than a given number. Your child will also learn to use the symbols  $>$ ,  $<$ , and  $=$  to compare numbers.

Here is part of a hundred chart:

31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

## One More Than/Less Than Ten More Than/Less Than

You can use a hundred chart to find a number that is 1 more than, 1 less than, 10 more than, or 10 less than a given number.

Find the number 42 on the chart.

To find 1 more than 42, move to the right 1 square. 43 is one more than 42.

To find 1 less than 42, move to the left 1 square. 41 is one less than 42.

To find 10 more than 42, move down 1 square. 52 is ten more than 42.

To find 10 less than 42, move up 1 square. 32 is ten less than 42.

## Practice Finding More Than/Less Than a Number

**Materials** hundred chart

Have your child find the number 47 on the hundred chart. Have her or him use the chart to find 1 more, 1 less, 10 more, and 10 less than 47. Ask your child to explain how she or he found the answers.

---

## Observe Your Child

As your child explains how he or she found the answers, encourage him or her to make generalizations about which directions to move on the chart to find numbers that are more and less. For example, "I move up or to the left to find numbers that are less."

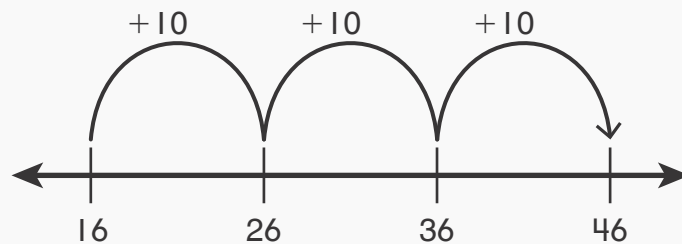
Name \_\_\_\_\_

# Use Models and Strategies to Add Tens and Ones

Dear Family,

Your child is learning strategies to add numbers. Your child will use a variety of models, including place-value blocks and hundred charts. He or she will also learn to add tens and ones using an open number line. This is an important strategy because it helps your child think about numbers and their relationships.

The open number line below shows one way to add  $16 + 30$ . You start at 16 and count on by tens. Each “jump” represents adding 10.



$$16 + 30 = 46$$

## Adding Tens and Ones

**Materials** 8 index cards, paper, pencil

Write one of the following numbers on each index card: 7, 8, 12, 15, 20, 23, 30, 50. Place the cards facedown and have your child choose two cards. Ask your child to show you one way to add the numbers on the cards. Repeat the activity by having your child mix the cards and choose a new pair of numbers to add.

---

## Observe Your Child

After your child adds the numbers on a pair of index cards, ask him or her to check the answer by using a different method to add. Ask your child to describe how the methods are similar and how they are different.

# Use Models and Strategies to Subtract Tens

Dear Family,

Your child is learning to subtract 2-digit numbers. In this topic, he or she will learn important subtraction skills, and how to use tools like models and hundred charts to help him or her subtract. The emphasis in this topic is on subtracting tens. Finding the difference of  $70 - 40$  is an example of subtracting tens.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70

The picture shows how to subtract  $70 - 40$  using a hundred chart.

Start on 70 and then find 10 less. Do this 4 times because 40 is the same as 4 tens.

$$70 - 40 = 30$$

## Subtracting Tens

**Materials** hundred chart, 50 counters or pennies

Have your child solve  $50 - 30$  using mental math. Then have him or her solve the same problem using a hundred chart, and then using counters (or pennies). Have your child explain which strategy he or she likes best and why.

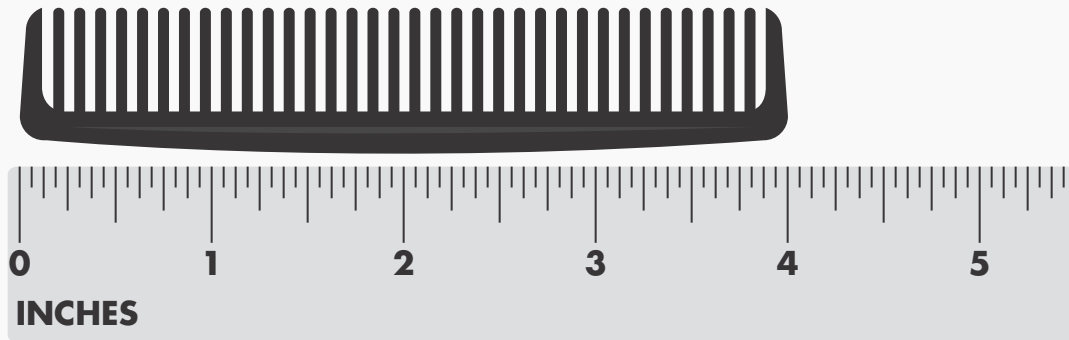
## Observe Your Child

Have your child explain how she or he can solve  $80 - 40$  using mental math. Look for place-value terms, such as *8 tens minus 4 tens is 4 tens*.

# Measure Lengths

Dear Family,

Your child is learning about measuring length. In this topic, he or she will learn to compare and order objects according to their lengths and to use a ruler to measure objects to the nearest inch. These are important foundational skills for learning to measure using a variety of standard units.



To measure the comb to the nearest inch, put one end of the comb at the 0 mark. Look for the number closest to the other end. The comb is about 4 inches long.

## Measuring Length

**Materials** 5 small household objects (toothbrush, flashlight, fork, etc.), inch ruler

Ask your child to measure the length of each object to the nearest inch. Encourage your child to tell you each measurement using the word *inches*. For example, *The flashlight is about 6 inches long.*

---

## Observe Your Child

As your child measures the objects, encourage him or her to be careful about placing one end of the object at the 0 mark on the ruler.

# Time and Money

Dear Family,

Your child is learning about the values of coins and how to tell time. In this topic, he or she will learn:

- to identify the value of pennies, nickels, dimes, and quarters; and count the value of combinations of pennies and dimes;
- to read a clock face and to tell time to the half hour and hour.

## Counting the Value of Coins

Finding the value of a group of dimes and pennies helps reinforce what your child has learned about place value of numbers to 100.



10¢



20¢



21¢



22¢



23¢

## Telling Time to the Hour

The clock below shows 5 o'clock.



On an analog clock, the short hand, or hour hand, points to the hour of 5. The long hand, or minute hand, points to 12, which stands for "o'clock."

A digital clock, shown below, is another type of clock that shows time.



It shows the numbers 5 for the hour and 00 for "o'clock."

## Telling Time

**Materials** 2 pencils of different lengths or 2 pieces of dry spaghetti, paper, pencil

Draw an analog clock with the numbers 1 to 12 and no hands. Draw a blank digital clock on another piece of paper. Write the numbers 1 to 12, two 0s, and a 3 on separate pieces of paper. Make short and long hands using 2 pencils or 2 pieces of dry spaghetti. Tell your child a time to the hour or half hour. Have him or her show the time on the analog clock with the pair of hands, and then show the same time on the digital clock with the numbers. Repeat the activity several times.

## Observe Your Child

Ask your child to describe any patterns or shortcuts he or she notices while telling time. For instance, ask your child what is true about the minute hand at 2:30, 3:30, and 4:30.

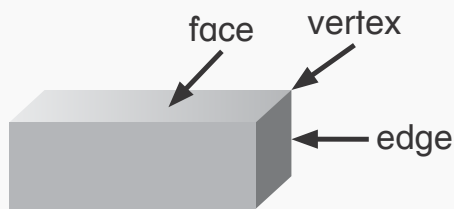
# Reason with Shapes and Their Attributes

Dear Family,

Your child is beginning to learn about *geometry*. In this topic, he or she will learn to identify two-dimensional and three-dimensional shapes based on their attributes and to combine shapes to form new shapes.

## Identifying Attributes of Three-Dimensional Shapes

The three-dimensional shape shown below is a rectangular prism.



Shape	Number of Faces	Number of Vertices	Number of Edges
Rectangular Prism	6	8	12

## Counting Faces, Vertices, and Edges

**Materials** Household objects that have three-dimensional shapes (soup can, shoebox, beach ball, etc.), paper, pencil

Choose a household object that has a three-dimensional shape. Ask your child to name the shape. Then make a table like the one shown above and add the name of the shape to the table. Have your child count the number of faces or flat surfaces, the number of vertices, and the number of edges. Add this information to the table and repeat the process with other household objects.

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## Observe Your Child

As your child looks at two-dimensional and three-dimensional shapes, ask him or her to explain how to identify a given shape. For example, your child might recognize that a cone has 1 flat surface and 1 vertex, and can roll.

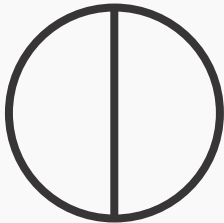
Name \_\_\_\_\_

# Equal Shares of Circles and Rectangles

Dear Family,

Your child is learning about fractional portions of geometric shapes. In this topic, he or she will learn to make and describe equal shares, such as halves and fourths, of whole objects. This understanding will provide foundational knowledge for fraction concepts in later grades.

This circle is divided into 2 equal shares.  
It is divided into halves.



This rectangle is divided into 4 equal shares.  
It is divided into fourths or quarters.



## Making Equal Shares

**Materials** paper, scissors, crayons

Work with your child to cut out several paper squares, circles, and rectangles. Ask your child to choose a shape and to use a crayon to divide the shape into 2 equal shares. Ask if there is a different way to divide the shape into 2 equal shares. Repeat the process with a different shape. Then repeat the process by asking your child to divide the shape into 4 equal shares. In each case, encourage your child to consider different ways to divide the shape into the required number of equal shares.

---

## Observe Your Child

Work with your child to cut out two identical copies of a shape. Have him or her divide one of the shapes into 2 equal shares and divide the other into 4 equal shares. Ask your child to explain which of the two shapes is divided into a greater number of equal shares. Then have him or her explain which shape has larger equal shares. Your child can answer these questions by comparing the shapes side by side or by reasoning about the quantities involved.