## Supporit Coache <br> TARGET Foundational Mathematics <br> 

# Home-School Connection 


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## Welcome to the Home-School Connection!

We want you to see examples of the mathematics that your child is studying in school this year.

The program is based on a new course of study called Common Core State Standards. It is new not only in your district but in almost every state in the country. Many lessons may look just like earlier ones, but there are changes taking place in the way math is taught and learned. Two of the big changes include greater emphasis on understanding basic concepts and on solving problems.

In Kindergarten and in Grades I and 2: Math Begins Early. From the beginning, it is crucial for children to be grounded in important fundamental concepts. This booklet gives you an idea of the changes and a chance to see what is in your child's math program. Take a look at the questions your child is asked. Each page shows a question or two from each lesson of the program.

Here is what you can do:

- Find out what lesson your child is working on in school.
- Look at the question from that lesson.
- Go over this question-your child will show you how to answer the question, or
- Help with finding the answer.


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## Count and Write Two-Digit Numbers

We learned how to count and show two-digit numbers.
We learned that two-digit numbers are made of tens and ones.
Let's work together to show 18 three ways.
Draw a group of ten and ones. Circle the group of ten.

Use ten frames.


## Count to 120

We learned to count to I20.
Let's make our own number chart to I20.
Write the missing numbers in the chart.
Let's find out what the $t$ and the $r$ stand for.

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

The stands for $\qquad$ .

The
stands for $\qquad$ .

## Place Value

We learned to count groups of IO to make counting easier. We learned that when there are extras, we count by IOs and then count the extras by Is.

Let's work together to count the number of $\Delta$.


## Compare Numbers

We learned how to compare numbers as being greater than, equal to, or less than each other. We learned that when we compare, we look at the tens place first, and if they are the same, then we look at the ones.

Let's work together to compare numbers between I through 99 . We both think of a number. Then we write the numbers in the spaces. Write either $>$, $=$, or $<$ to compare.
$\qquad$


Draw models of each number to prove that you are correct.

## Compare and Order Lengths

We learned how to measure items using cubes. We learned that the end of the item needs to be even with the end of the starting cube so that we can get an accurate measure.

Let's work together to find two items that measure as long as the cubes shown.

## Count On

We learned how to count on to find the totals of two groups of numbers. We learned that when we count on, we start with the greater number and then count forward from there.

Let's work together to count on to find the totals of two numbers.
Count on to find the total of 16 and 2.
Use numbers or draw pictures to show how you count on.
Complete the sentence below.

## Understand the Equal Sign

We learned that the equal sign means that both sides are the same value. When we see the equal sign, both sides must have the same value.

Let's work together to make both sides of the equation equal.
Write an expression that makes both sides equal.
Draw a model to show that both sides are equal.

$$
15+4=
$$

$\qquad$
$15+4=$ $\qquad$ and this is true.

## Relate Addition and Subtraction

We learned that we can use addition to help us solve subtraction problems. We use related addition facts to solve subtraction equations. Let's review together. Start by reading the story and creating a subtraction equation.

Kipper had 9 dog bones in a box. He buried 7 in the yard. How many bones are left in the box?

Subtraction equation:
$9-7=$
Think about addition to solve:
$7+=9$
We create a number bond:
Solve the addition equation:
$7+\ldots=9$


Solve the original subtraction equation:
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$9-7=$ $\qquad$
Use addition to solve a subtraction equation.
$10-6=$
Think about addition to solve: $6+\square=10$
Create a number bond:
Solve the addition equation:
$6+$ $\qquad$ $=10$


Solve the original subtraction equation:
$10-6=$

## 9

## Missing Numbers in Equations

We learned to find missing numbers in equations. We count on from a number to do this. Let's review together. Start by finding the missing number in this equation.

Count on. $6+\square=10$
What is the first number you say? $\qquad$
What is the last number you say? $\qquad$
How many numbers did you say? $\qquad$
What number is missing from the equation? $\qquad$
$6+\ldots=10$
Draw or write a story problem to tell about the equation.
Then solve for the missing number.

$$
7+\square=15
$$

## Addition Facts to 10

We learned to add facts to 10 in different ways. We learned that you can add numbers in any order and the sum will be the same. Let's work together to add two different numbers two ways.

Choose two different numbers 5 or less.
$\qquad$ and $\qquad$
Add the numbers two ways.
$\qquad$ $+$ $\qquad$

$$
=
$$

$\qquad$
$\qquad$ $+$ $\qquad$ $=$ $\qquad$

11

## Add by Putting Together and Adding To

We learned to add by putting two parts together to find the total and to find the missing part by adding on to get to the total. We learned that we can use models to show what is happening in the addition problem.

Let's work together to find the missing part by counting up.
There are 15 birds in the cage. 7 are yellow. The rest are red. How many birds are red?

Fill in the part and the total.

| Part | Part |
| :---: | :---: |
| Whole |  |

Write the equation.
$\qquad$

$$
+\square=
$$

$\qquad$
Use circles to represent birds. Draw the total birds.
Shade the number of yellow birds.

Count up the circles that are not shaded.
Complete the equation.
$\qquad$ $+$ $\qquad$ $=$ $\qquad$
$\qquad$ birds

## LESSON <br> 12

## Subtract by Taking Away and Taking Apart

We learned to subtract to solve taking away and taking apart word problems. We learned that we can use models, a drawing, or a number line to solve a problem.

Let's work together to solve this problem.
Use ones models or a drawing.
There are I7 ladybugs.
Some ladybugs fly away.
Fill in how many ladybugs fly away with a number less than 15 .
$\qquad$ ladybugs fly away.

How many ladybugs are left?
17 - $\qquad$ $=$ $\qquad$
There are $\qquad$ ladybugs left.

## LESSON <br> 13

## Solve Comparison Addition and Subtraction Problems

We learned to solve comparison problems. We used bar models to show the numbers. Then we added or subtracted to solve the problems. Let's work together to solve this comparison problem.

Eli read 9 books.
Ana read 14 books.
How many more books did Ana read than Eli?
Write an equation.


Make a bar model.
$\square$
Subtract I4-9 to find how many more.
$14-9=$ $\qquad$
Ana read $\qquad$ more books than Eli.

## ussor <br> 14

## Addition Facts within 20

We learned different strategies for adding numbers within 20. We learned to use a ten frame and then make a ten strategy to add. Let's review how to use a ten frame and how to make a ten.

Add 7 + II.
Fill in ten frames.


Write the equations.
Make a ten.


Lesson
15

## Add Three Numbers

We learned to solve word problems involving adding three numbers. We learned we could begin by making a ten, using a fact we know, or adding the first two numbers.

Let's work together to solve this problem.
Fill in three numbers less than IO.
Joy has $\qquad$ green blocks and $\qquad$ red blocks.

Her friend gives her $\qquad$ more blocks.

How many blocks does she have now?
$\qquad$ $+$ $\qquad$ $+$ $\qquad$ $=$ $\qquad$
$\qquad$ blocks. Subtraction Facts within 20

We learned how to solve subtraction facts within 20 . We used a strategy where we subtracted in two-steps: once to get to IO and then to find the answer. To do this, we first had to break apart the number to subtract into two parts. Let's work together to solve this subtraction problem.

Find I3-7. Show all the steps you use to do this.
I break apart a number to help get to 10 .
This is how:

I subtract to get to the 10 :

I subtract to find the answer.
$13-7=$

## LESSON <br> 17

## Add a 1-Digit to a <br> 2-Digit Number

We learned to make jumps on a number line to help us add. We found the first number on the line. From there we made jumps that show the second number. Let's review how to use the number line to add together.

Add. $43+8=$
Start at 43 on the number line.


What is the next ten? $\qquad$
Draw a big jump from 43 to 50.
How many numbers do you jump so far? $\qquad$ numbers

Draw a small jump from 50 to 51.
How many numbers do you jump in all? $\qquad$ numbers.

Why do you jump 8? $\qquad$
Where do you land? $\qquad$
$43+8=$ $\qquad$

## 10 More and 10 Less

We learned to find IO more and IO less than a given two-digit number. We learned that first we should find the tens digit and then add I ten to find 10 more or subtract I ten to find IO less. Let's work together to solve this problem.

Fill in a two-digit number greater than II.
Find IO less than $\qquad$ .

10 less than $\qquad$ is $\qquad$ .

Draw a model of your number and IO less than your number.

## LESSON <br> 19 <br> Subtract 10s

We learned how to subtract a group of tens from another group of tens. We used tens to model the subtraction, first shown with tens models and then by drawing tens. We then crossed out the tens to show the subtraction, and counted the number of tens that were left. Let's work together to solve this subtraction equation.

Subtract $90-30$. Show all the steps you use to do this.

I model the number 90 by drawing tens. This is how:

I subtract 30 by crossing out tens.

I look at the tens left and find the answer.
$90-30=$ $\qquad$

## Add 10s

We learned to add a decade number such as $10,20,30 \ldots$ to a two-digit number. We learned that first we should find the tens digit for each number and then add the tens digits to find how many tens are in the answer. We also learned that the ones digit from the starting number stays the same.

Let's work together to solve this problem.
Fill in with a two-digit number less than 50.
Explain how you solved.
$\qquad$

$$
+50=
$$

## Glossary

add (addition) to find how many in all (Lesson 7)
$3+2=5$
break apart to show the tens and ones in a number. This can also be done to show the addends that make up a number. (Lesson 16)

Break apart 23.


Break apart 9 . $9=6+3$
count on starting from any number and counting forward to another number. This method is used for addition. (Lessons 6, 15)

$5+3$. Start at 5 and count on 3 to find the sum. The sum is 8 .
equal to numbers that have the same value are equal to each other (Lesson 4)
$2+3$ is equal to 5 .
$2+3=5$
$4+3$ is equal to $3+4$.
$4+3=3+4$
equation a number sentence with an equal sign (Lesson 7)
$2+4=6$
$7-2=5$
false incorrect. An equation that is false has different values on both sides of the equal sign. (Lesson 9)
$2+2=3$ is a false equation.
fewer less than (Lesson 13)
3 is fewer than 5 .
greater than more than. The symbol > means" "greater than." (Lesson 4)

9 is greater than 4 .
$9>4$
less than fewer than. The
symbol < means "less than." (Lesson 4)

3 is less than 8 .
$3<8$
longer having a greater length (Lesson 5)


The row of red cubes is longer than the row of blue cubes.
more a greater amount (Lesson 13)

There are more red dots than green dots.
part in an addition problem, the two numbers that are put together to make a whole (Lesson 12)

There are 4 green apples and 2 red apples in a bag. How many apples are in the bag?

The two parts of the addition problem are 4 and 2.
$4+2=$
shorter having less length (Lesson 5)

0000
1000
The row of blue cubes is shorter than the row of red cubes.
subtract (subtraction) to find how many are left (Lesson 7)
take away to take a value from a greater value (Lesson 12) ten frame a tool to keep track of counting and making a ten (Lesson I)

tens-ones table a table that shows the value of the tens place and the value of the ones place (Lesson I)

true correct. An equation that is true has the same value on both sides of the equal sign. (Lesson 9)
$2+1=3$ is a true equation.
whole in an addition problem, the whole is the result of 2 parts being put together (Lesson I2)

There are 6 apples in a bag. 4 of the apples are green and the rest are red.

The whole of the addition problem is 6 .
$6=4+$

## ANSWERS

## Lesson 1



|  |
| :---: |


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| tens | ones |
| :---: | :---: |
| $\mathbf{1}$ | $\mathbf{8}$ |

Lesson 2

| 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 |
| 71 | 72 | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 |
| 81 | 82 | 83 | 84 | 85 | 86 | 87 |  | 89 | 90 |
| 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 |
| 101 | 102 | 103 | 104 | 105 | 0 | 107 | 108 | 109 | 110 |

The $t$ stands for 88.
The stands for 106.

## Lesson 3

8 groups of 10
6 extra
86 in all

## Lesson 4

Answers will vary. Parent/guardian and the child choose numbers between I through 99 and compare.

## Lesson 5

Answers will vary. Parent/guardian and the child choose

## Lesson 6

Drawings will vary. Make sure that the total shown is I8. Look to see that the child started with the greater number of 16 , and counted on 2 , instead of starting with 2 and counting on 16.

16 and 2 is 18 total.

## Lesson 7

Drawings will vary. Ensure that the child's drawings show 19 objects on both sides of the equal sign. Some expressions could be: $4+15$, $17+2$, $18+1$, and so on. Possible response: $15+4=17+2$ and that is true.

Lesson 8
$7+2=9$

$9-7=2$

$$
6+4=10
$$


$10-6=4$

## Lesson 9

What is the first number you say?
7
What is the last number you say?
10
How many numbers did you say?
4
What number is missing from the equation?
4
$6+4=10$
Drawings or stories will vary. Make sure that the child counts on from 7 to get to 15 .
$7+8=15$

## Lesson 10

Check that two different numbers are used and the correct sum is given. Below should be the same numbers in reverse order. Answers will vary. Sample answer below.
$4+3=7$
$3+4=7$

## Lesson 11

| Part <br> 7 | Part |  |
| :---: | :---: | :---: |
| Whole <br> 15 |  |  |
| 15 |  |  |

$$
7+\square=15
$$


$7+8=15$
15 birds

## Lesson 12

Answers will vary but should be less than I5.
Sample answer:
5 ladybugs fly away.
How many ladybugs are left? $17-5=12$
There are $\mathbf{I 2}$ ladybugs left.

## Lesson 13

$14-9=$

| Ana | 14 |  |
| :--- | ---: | ---: |
|  | 14 |  |
|  |  |  |

$14-9=5$
Ana read 5 more books than Eli.

## Lesson 14


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$$
\begin{aligned}
& 7+11=\square \\
& 7+3+8= \\
& 10+ \\
& 8=18
\end{aligned}
$$

## Lesson 15

Answers will vary depending on the numbers picked. Have children discuss the method used and check their calculations as they proceed through each step.

## Lesson 16

I break apart the 7 .


3 and 4
I subtract to get to the 10 .
$13-3=10$
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I subtract to find the answer.
$10-4=6$
$13-7=6$

## Lesson 17



50
7
8
Possible responses: To show adding 8. To show the second number.

## 51

51

## Lesson 18

Answers will vary, dependent on the number chosen by children.

## Lesson 19

Sample answer:

$90-30=60$

## Lesson 20

Possible answer: $47+50=97$.
I solved by adding the tens $(4+5)$ to get 9 , and then keeping the 7 since there are no other ones being added.

