Addition

0.

7	8	9	÷	C
4	5	6	X	√x
1	2	3	−	1/x
0	+/−	·	+	=

SVG-20K Calculator by Jay Nick

Kid2Kid Tutorials

TABLE OF CONTENTS

LESSON

Kinder, 1st, 2nd, and 3rd

OBJECTIVES:

- Place Value to 100's
- Adding 0-20 Word Problems
- Adding with unknown 0-20
- Adding 3 numbers with unknown 0-20
- Adding 3 numbers within 20
- Commutative and Associative Property of Addition
- Mental Addition

ABOUT US:

Here at Kid2Kid Tutorials we understand that tutors can be expensive that is why we offer educational videos for free. Our goal is to help you understand math concepts, provide homework help, and free tutoring (on YouTube).

WHERE TO FIND US:

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This plan works best on a computer or tablet. I link many videos, crafts, and other resources. Writing out all of the links would be distracting. Please click on the underlined words or the buttons to be directed to the resources.

MATERIALS:

- 10 blocks, or
- Toys (cars, Legos, etc....), or
- Poker chips, or
- White/Black board (you can draw out objects or blocks)
- Place value chart
- 100's chart
- Abacus

PLACE VALUES TO 100

- We do not have a video on place value, we can create on if there is a need.
- Grab materials to practice – choose 1 or all
  - 10 blocks, or
  - Toys (cars, Legos, etc....), or
  - Poker chips, or
  - White/Black board (you can draw out objects or blocks)
  - Place value chart
- Teach
  - Create, print, or draw a place value chart. I have created one and attached it to the end of the document.
  - Have the student add 1 object (I recommend 10 blocks) at a time in the ones place column. Once they get to 9 ask them to stop.
  - Pull out a number 9 card and place it with the objects in the ones place column.
  - Now pull out a 1 and a 0 card. Put them together to make a 10. Show the student that when we have 10 objects in the ones column we can move all the ones block (equal to 10) into the tens column
  - Have the student add another block to the ones column, so it equals 10.
  - Have the student move the blocks from the ones column to the tens column
  - Now show the student the 10 block. Ask them to count how many one blocks it took to make a 10 block (they should say 10).
  - Ask them to replace the 10 one blocks and replace it with 1 ten block.
  - Now place the 1 card under the tens column. Explain that you now have 1 ten block.
  - Place the 0 card in the ones column, explain the 0 represents how many ones are left in the ones column.
  - Play around with this, try it with 11 blocks, then 22, then 58, etc.

- When you move to the hundreds column, explain that it is the same as moving 10 ones to the tens column, Now, you need 10 ten blocks to move to the hundreds.

*If you would like us to create a video on place values please email me through our website or on Teachers Pay Teachers. I will email you the link once created.

ADDING 0-20 WORD PROBLEMS

- Watch **video**
- Grab materials to practice – choose 1 or all
  - 10 blocks, or
  - Toys (cars, Legos, etc.…), or
  - Poker chips, or
  - 100's chart, or
  - Abacus
  - White/Black board (you can draw out objects or blocks)
 - Written numbers on note card (0-20) and note card with the subtraction (-) and equal signs (=)
- Teach
 For the first problem (14 + 6 =) get out 1 ten block and 10 one blocks.
  - Place them accordingly (1 ten and 4 ones under 14, and 6 ones under 6)
 - Show the student that you are actually adding 1 ten to 4 ones and 6 ones.
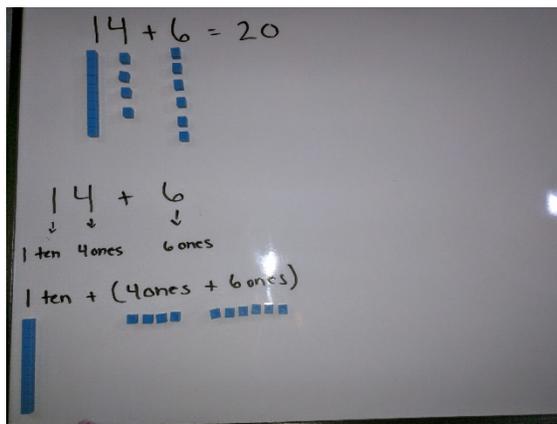
  - Combine all the one blocks and have the student count them. Then show them a 10 block and show them how 10 ones are equal to 1 ten block.
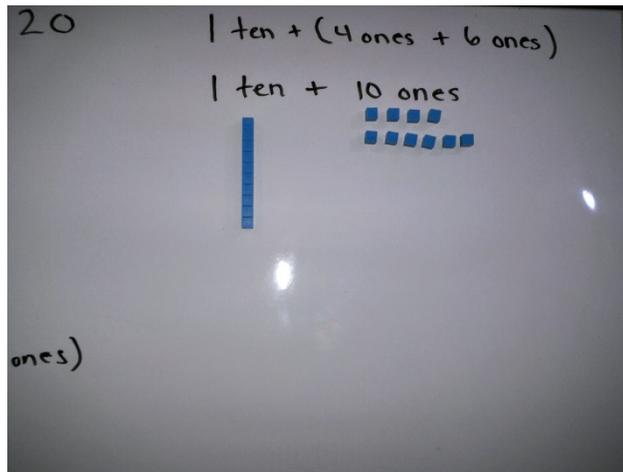
- Replace the 10 one blocks with 1 ten block.
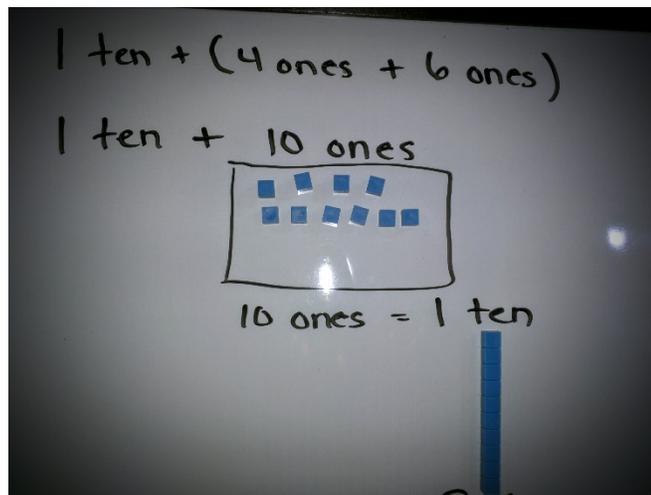
- Put the tens next to each other and have the student count the number of blocks (2 tens). Tell them that when you have 2 tens that means 20.
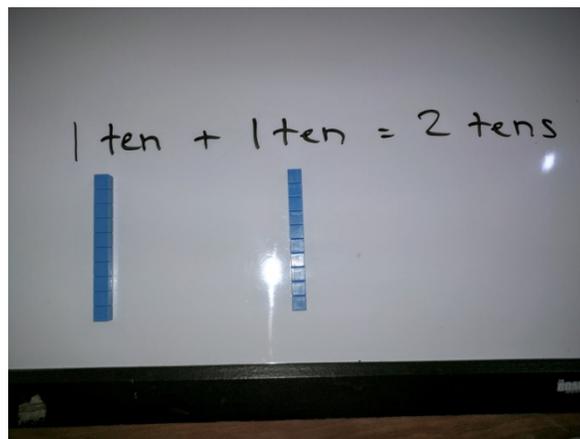

- Now finish the problem: 14 + 6 =20

This may seem like such a hassle and you may want to just go back to borrowing and carrying. However, if you stick with this method it will make mental math so much easier. How do I know? I teach my children this method. If you know them or watch their YouTube channel you will know that their math skills are strong. The methods I have used to teach them took time and so much effort on my part. Once they understood the concepts other math problems became so much easier.

Using 100's chart: This is an amazing way to add and subtract, once you learn the method. My older son preferred this method and he is amazing at calculating in his head.

Place chart used is from Super Teacher's Worksheets, the link is in the materials list. If you need a video on how to use the chart please let me know via Teachers Pay Teachers, our website, or YouTube (links are on the first page).

- o For the first problem 14 + 6 =
    Find the 14 on the number chart, count forward 6, and you will land on 20.
- o 7 + 10 =, this one you will need to find the 7 and just move one row down to the 17 (10 places). I would start with moving 10 paces to 17, then explain the chart is set up using 10's and if they just jump one row down they added a 10.

Using an Abacus:

Using an abacus shows the same concept as using 10 blocks or 10 frames. You are assigning place value and learning to calculate by ones, tens, and hundred's, etc.... I do like the abacus and if you and your student want to use the abacus click HERE. You can still use this lesson plan just the abacus instead of blocks, 100's chart, or other objects.

- Watch first **video** and second **video**
- Grab materials to practice – choose 1 or all
  - 10 blocks, or
  - Toys (cars, Legos, etc.…), or
  - Poker chips, or
  - 100's chart, or
  - Abacus
  - White/Black board (you can draw out objects or blocks)
  - Written numbers on note card (0-20) and note card with the subtraction (-) and equal signs (=)
- **Teach**

  Using 10 blocks or other objects:

  For the first problem $6 + X = 20$. Get out 2 ten block and 10 one blocks (put the one blocks aside).
  - Show the student that 1 ten + 1 ten = 20
  - Place the 2 ten blocks under the 20.
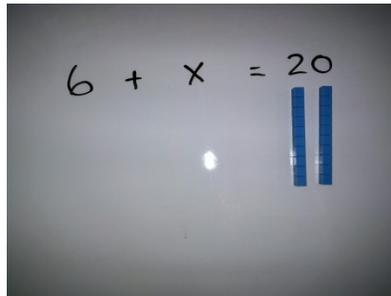
  - Replace 1 of the ten blocks with 10 one blocks.
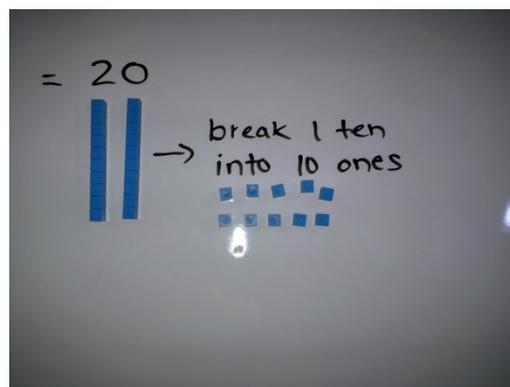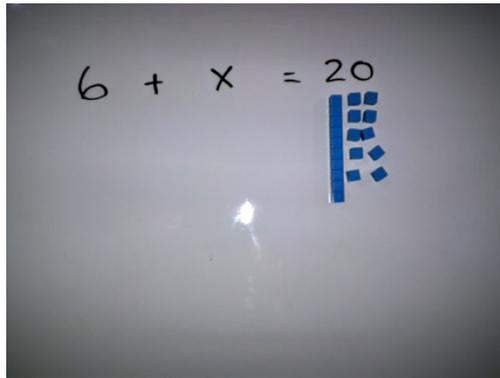
- o Count out the number given (6)
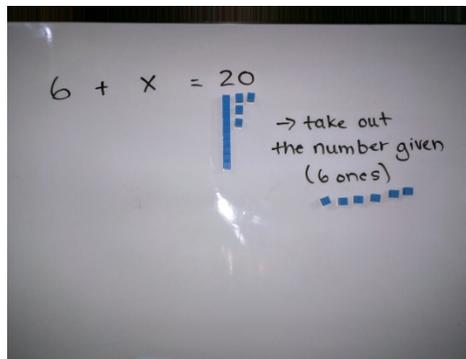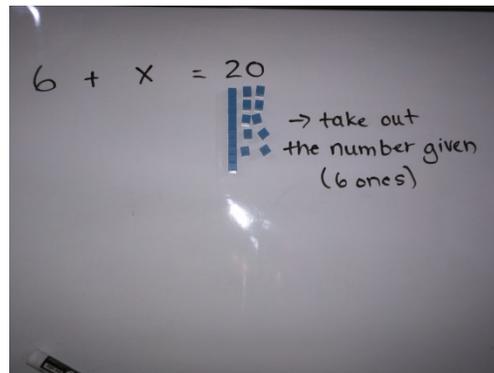
- o Place the 6 one blocks under the 6 in the equation
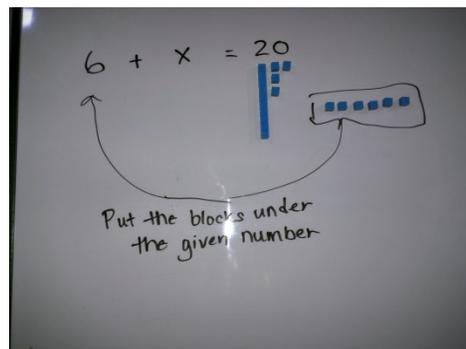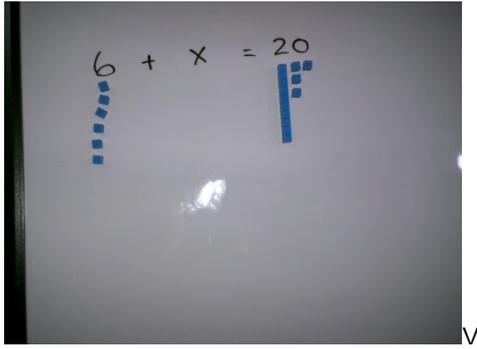
- o Take the remaining blocks (under the 20) and move them under the X (unknown)
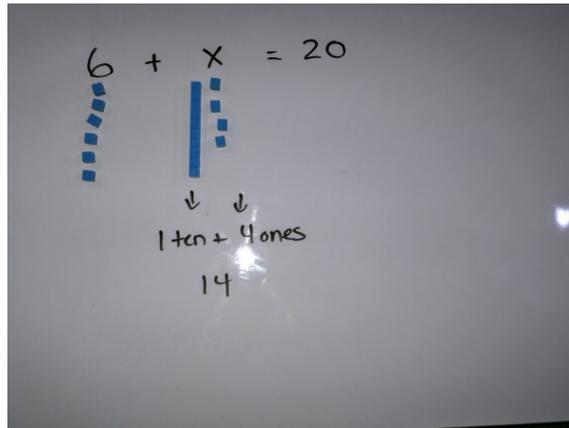
- o Count how many blocks are under the X. That is the answer.
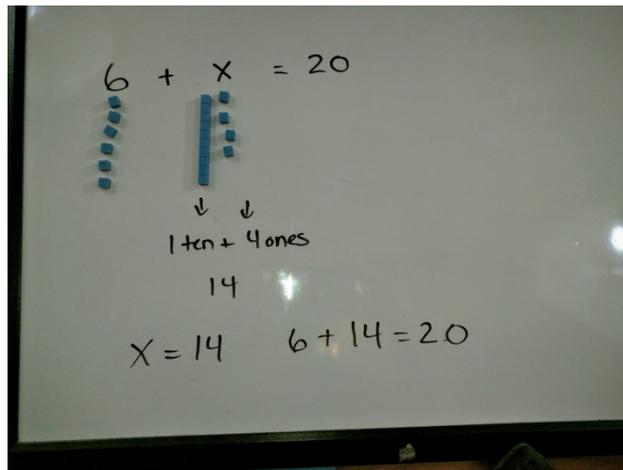
Using 100's chart: 100's chart used is from Super Teacher's Worksheets, the link is in the materials list.

- o Find 20 on the 100's chart
- o Jump back 6
- o You should land at the number 14

This not only helps find the unknown number, but relates addition and subtraction.
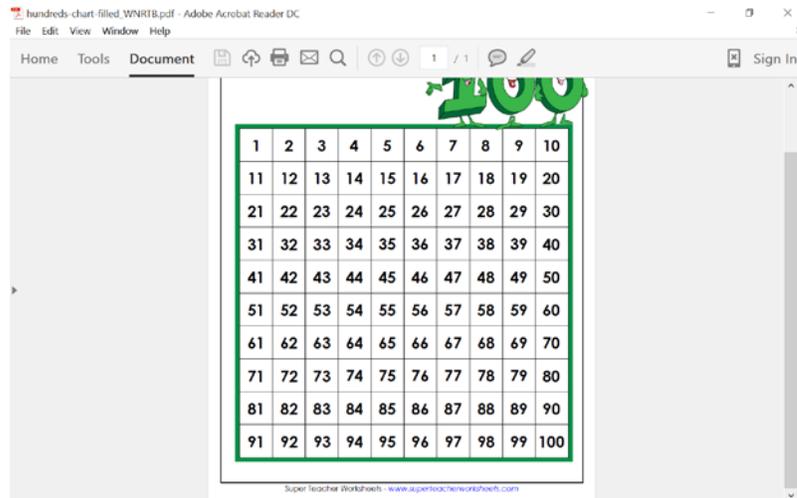
Super Teacher Worksheets - www.superteacherworksheets.com

Using an Abacus:

Using an abacus shows the same concept as using 10 blocks or 10 frames. You are assigning place value and learning to calculate by ones, tens, and hundred's, etc.... I do like the abacus and if you and your student want to use the abacus click **HERE** . You can still use this lesson plan just the abacus instead of blocks, 100's chart, or other objects.

Adding 3 Numbers word problems

- Watch **video**
- Grab materials to practice – choose 1 or all
  - o 10 blocks, or
  - o Toys (cars, Legos, etc....), or
  - o Poker chips, or
  - o 100's chart, or
  - o Abacus
  - o White/Black board (you can draw out objects or blocks)
  - o Written numbers on note card (0-20) and note card with the subtraction (-) and equal signs (=)
- **Teach**
  - o Adding 3 numbers is the same as adding 2 numbers together.
  - o You are adding the numbers in the ones place together, the ones in the tens place together, and so on.

PROPERTIES OF ADDITION

- Watch **video**
- Grab materials to practice – choose 1 or all
  - o 10 blocks, or

- o Toys (cars, Legos, etc.…), or
- o Poker chips, or
- o White/Black board (you can draw out objects or blocks)
- o Place value chart
- **Teach**

- o Example: 5 + 3
- o Take a note card, or write on white/black board "a" and "b"
- o Tell the student that the letters represent numbers, it can be any number. The numbers need to be different since there are 2 different letters representing numbers.
- o Now place a 5 below the "a" and a 3 below the "b"
- o Explain that in this problem the a = 5 and b = 3.
- o Write or place a note card that states a + b = b + a
- o Explain again that a = 5 and b = 3. Write the 5 and 3 under the "a's" and the "b's"

$$a + b = b + a$$

$$5 + 3 = 3 + 5$$

- o Explain again that a = 5 and b = 3. Write the 5 and 3 under the "a's" and the "b's"
- o Place or draw 5 one blocks under the 5's and 3 one blocks under the 3's
- o Ask the students to add the first set (5+3), write the answer
- o Have the students add the second set, write the answer
- o Point out that both add up to 8.
- o Explain that in addition the order of the numbers does not change the answer.
- o Do a few more example until the students grasp the concept.

COMMUTATIVE PROPERTY:

- o Example: 5 + 3 + 4
- o Take a note card, or write on white/black board "a", "b", "c"
- o Tell the student that the letters represent numbers, it can be any number. The numbers have to be different since there are 3 different letters representing numbers.
- o Now place a 5 below the "a", a 3 below the "b", and a 4 below the "c"
- o Explain that in this problem the a = 5, b = 3 and c = 4
- o Write or place a note card that states a + (b + c) = b + (a + c)

- Explain again that a = 5, b = 3, and c = 4. Write the 5, 3, and 4 under the "a's", "b's", and "c's"

$$a + (b + c) = b + (a + c)$$

$$5 + (3 + 4) = 3 + (5 + 4)$$

- Place or draw 5 one blocks under the 5's, 3 one blocks under the 3's, and 4 one blocks under the 4's
- Ask the students to add the numbers in the **parenthesis** then the other number in the first set, write the answer 5 + (7) = 12
- Have the students add the second set, write the answer
- Point out that both add up to 12
- Explain that in addition the order of the numbers does not change the answer.
- Do a few more example until the students grasp the concept.

*Note: in addition, it does not matter in which order you add the numbers, however, getting into the habit of adding the parenthesis first is important.

Bonus Video Mental Addition

PRACTICE:

There are many ways to practice the concepts, I have listed a few. There are probably more sites, I prefer the ones below. Find one that works for your student.

If the student prefers to learn online, you can try the following:

- Kahoot
- Khan Academy
- Math is Fun
- IXL

If your student prefers workbook's you can purchase them on Amazon or a teacher store. You can also make your own worksheets:

- edHelper
- Math Goodies
- Common Core Worksheets
- Super Teacher Worksheets
- Or just create one on a piece of paper.

If your student hates both method's, you can try the following:

- Have them "teach" you or someone else. Show them the problems and ask if they can help you with them.
- Write a problem on the board and ask them to solve it there. Some kids prefer whiteboard or chalkboards over worksheets.
- Have them do a movie/tutorial explaining how to solve the problem.

Let them tell you without writing anything down. My older son preferred to just tell me than write it down. If I had him write it, he would throw a fit. If I asked him to just tell me the answer, he would.

Hundreds	Ten	Ones

You can print and cut these out instead of purchasing blocks. I would recommend laminating the blocks to ensure they last awhile. Purchasing the actual blocks is worth the money.