Math week 7

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| 2-12 – Subtraction with Drawings and Equations |
| |  |  | | --- | --- | | 1.OA.1 | Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.2 | Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.5 | Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). | |
| **Which is Less? Try Your Best** – Warm up game  **Practice Counting On** – Underline the bigger number in the equation and count on with dots  **Draw to solve a subtraction story problem:**  I saw 9 robins in a tree. Then 5 of them flew away. How many robins are still in the tree?  Have students draw a circle drawing to match, writing the subtraction part (9-5) at the top, and the total under the break apart line.  What are the partners, what is the total? Remind students that 4 is one of the partners, not the total.  **More Subtraction Stories:**  Complete the following with LABELS!!! \_\_\_ apples, \_\_\_trees  **Questions to ask:** What do you still need to find out? Are you finding a total or a partner? Who can tell me which number is the total? How do you know? How can we use a circle drawing to find out how many cherries are left? How many cherries are left?  10 Cherries grew on a tree. Then we ate 3. How many cherries are left?  Sergio had 7 pennies. He lost 4 of them. How many pennies does he now have?  8 girls are playing soccer. Then 2 girls go home. How many girls are still playing?  **Subtraction Equations:**  Review addition: 2 + 3 = 5, have a student show that it is true by drawing a picture. What does the equal sign tell us? How can we prove that these two sides are really equal?  Introduce a subtraction equation: 6-2 = 4, Ask students to prove that it is true by drawing a circle drawing. Because there are 4 circles remaining on one side and 4 on the other side, it is true!  “We can subtract 2 from 6. When we subtract, we write a subtraction equation, which has a minus sign. Let’s say the subtraction equation again. 6 – 2 = 4. Let’s all say the sentence ‘We can add and we can subtract’”.  **Page 69.** |
| 2-13 – Practice with Subtraction |
| |  |  | | --- | --- | | 1.OA.1 | Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.2 | Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.5 | Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). | |
| **Which is Less?**  **Counting On**  **More and Less**  **Draw and Write an Equation:**  Have a student do this at the board while students do the same at their seats.  I have 7 balloons. Then 2 of them pop. How many balloons do I have now?   1. Repeat problem in own words 2. Make a circle drawing and explain how it matches 3. Use the drawing to write an equation 4. State the answer \_\_\_balloons.   Class reads the equation: 7-2 = 5  **Solve More Problems:**  Sample problems below or have students make up their own.  Ramona has 6 sweaters. She takes 5 of them to camp. How many sweaters are left?  I made 10 paper snowflakes. I gave away 7 of them. How many do I have now?  Nicholas has 9 plums. He eats 2 of them. How many plums does he have now?  Mia buys 8 stickers. She gives away 6 of them. How many stickers does she have now?  **Writing Number Sentences:**  Make proof drawings: Have students write a number sentence for a story problem without using a drawing.  Is it true? How can we prove it?  Have students draw the proof and conclude that the number sentence is true. “8 minus 5 is the same as 3, so 8-5 = 3 is a true number sentence.  Practice:  There are 9 tomatoes in the garden. Then Rosa picks 5 of them. Now there are 4 tomatoes.  There are 10 cars in the parking lot. Then 8 cars drive away. Now there are only 2 cars.  **Check Number Sentences for Errors:**  Point out when it is not true, it is false.  I have 10 glasses. Then 4 of them broke. I think I have 5 glasses left. Is that right?  Write the number sentence using the numbers in my story and check to see if it is true.  **Critical Thinking:**  **Write 6 \_\_\_1 = 5, have students decide whether it should be minus or plus.**  **Page 71.** |
| 2-14- Generate subtraction problems |
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| **Which is Less?**  **Counting – On**  **More and Less**  **Write and Prove Number Sentences:**  Tell the story, and have the class write the number sentence down.  7 monkeys were swinging in a tree. Then 4 of them left. Now there are 3 monkeys swinging.  Prove that this is true, but remember if a number sentence is true then both sides of the number sentence must be equal. Is the number sentence 7-4 = 3 true?  Practice:  There were 10 clouds in the sky. Then 7 of them blew away. Now there are 3 clouds.  There were 6 peaches on the tree. Then we picked 2. Now there are 3 peaches left on the tree.  **Subtract with Nickels**  Paco had a nickel, but he spent 4 cents. He has only 1 cent left.  Alicia had a nickel. She bought a marble for 3 cents. Now she has 2 cents.  **Solve subtraction problems:**  Remind students that the empty box symbol is a number that is unknown and needs to be discovered.  There were 9 ducks in the pond. Then 5 of them flew away. How many ducks are left? 9 – 5 = \_\_\_  Discuss whether the answer is reasonable.  Is “4 ducks” a reasonable answer? That is, does the answer “4 ducks” make sense?  Why do you think so? --- If there were 9 ducks and some flew away, then there are fewer than 9 ducks left. 4 is less than 9  Good thinking, but 8 is less than 9. Is “8 ducks” a reasonable answer?  Why? 8 is only 1 less than 9, but more than 1 duck flew away  **Logical Reasoning: Page 73**  Miguel wants a puppy that has spots and lots of fur. How could you figure out which puppy Miguel would pick?  Miguel wants his puppy to have lots of fur. Which puppies do not have lots of fur? Cross them out.  There are two puppies left for Miguel to pick from. Miguel also wants his puppy to have spots. Which puppy does not have spots? Cross out that puppy. |
| 2-15 –Addition and Subtraction Equations written in vertical form |
| |  |  | | --- | --- | | 1.OA.1 | Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.2 | Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. | | 1.OA.5 | Relate counting to addition and subtraction (e.g., by counting on 2 to add 2). | |
| Before and After Game – Invite 4-5 students to stand in a line and discuss who is befor, after, just before, and just after  More and Less Game  **Show the Vertical Form for Addition:**  So far, we have been writing equations across the page like this:  5 + 3 = 8  Here is a story for the equation. Suppose there were 5 bats. Then 3 bats come along. There are 8 bats altogether. We can also write this addition up and down, like this:  The line below means the same thing as the equals sign.  **Show the Vertical Form of Subtraction:**  There were 8 bats altogether, then 3 bats flew away. There are 5 bats left. We can write this equation across like this and up and down like this.  **Practice:**  Have students create their own story problems and have the class solve together using equations in the vertical form.  **Page 75 –** “Remember the 1st number in a subtraction problem is always the total. The total number of apples is shown in the picture. Use the picture to figure out how many will be left when 3 apples are taken away. |
| Unit 2 Test/Unit 3 Pre-Test |