KINDERGARTEN

BOARD MATH

BANK OF PROBLEMS

Compiled by members of the Math Cadre

October, 2014

**COUNTING AND CARDINALITY**

**Number Names & Sequence (2 problems) CC.1, CC.2, CC.3**

***Count from 31 to 50.***

***Count forward from 62 to 80.***

***Count to 100 by tens.***

***Count from 67 to 100 by ones.***

***Find the missing numbers.***

***\_\_ 21 22 \_\_ \_\_***

***11 \_\_ 13 \_\_ 15***

***5 \_\_ 3 \_\_ 1***

***Count up.***

***3, \_\_, \_\_, \_\_, \_\_, \_\_***

***16, \_\_, 18, \_\_, \_\_***

***Which number goes where the star is?***

***Which number goes where the happy face is?***

***0 2 4***

***Represent and write the numeral \_\_\_\_.***

***OR***

***![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\8X28BGPJ\MC900436892[1].png]()![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\8X28BGPJ\MC900436892[1].png]()Count a set to show \_\_\_. Write the numeral in the blank.* (Teacher orally says the number.)**

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**![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\1HBO9TWV\MC900319436[1].wmf]()Write the numeral for the amount of objects shown.**

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**OR**

***Write the numeral for the amount of objects shown.***

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**Number of Objects—0 to 20 (2 problems) CC.4, CC.4a, b, c, CC.5**

**(Referring to lemon problem above) *How many would there be if we added one more lemon?***

***How many apples are there? Touch one object for every one number you count.***

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***![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\JMC73OI6\MC900311916[1].wmf]()![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\JMC73OI6\MC900311916[1].wmf]()6 7 8 9***

***Count the objects. Tell how many.***

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***What if we have 4 cubes and added one more. How many cubes would there be then?* (No picture support for this problem)**

***How many cans are there? What helped you count them?* (Change the arrangmenet of the objects each day.)**

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***If we have 18 students and then we get one more friend in our class, how many students will we have then*? (No picture support for this problem.)**

**Compare Numbers (1 problem) CC.6, CC.7**

***Count the groups. Are they equal, less, or more than the group of stars?* (show picture of groups of objects)**

***Who has the greater/less number of balloons?***

**![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\6Q421OTC\MP900449097[1].jpg]()*George OR Hector***

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***Use one-to-one counting to find which group of objects has one more/less.***

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***Count and draw lines to match. Write the numbers. Draw a circle around the group and number that is greater/less.***

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***Which numbers are greater than 5?* (Can use numbers up to 10)**

**1 8 3 10**

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***Which group is greater than 5?***

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**OPERATIONS AND ALGEBRAIC THINKING**

**Understanding Addition and Subtraction (3 problems) – OA.1, OA.2, OA.3, OA.4, OA.5**

***Is this addition or subtraction? I have 3 blocks and I find 2 more. What is the sum or difference?***

***Find the difference.* (within 5)**

***4 - 3 =***

***I have 6 toys. How many more toys do I need to make 10?* (Have an empty ten frame displayed.)**

***Five apples are on the table. Three are red and the rest are green. How many apples are green?***

***What are all of the ways to show 10?***

***There are 4 plates on the counter. I put some more next to them and now there are 9 plates. How many plates did I put down?***

***Find the sum.* (within 5)**

***3 + 2 =***

***I want to fill a vase with 8 red and blue flowers. What are all of the ways I can do this?***

***Use a model to show what this problem looks like. There are 2 white cats in a tree. Two more black cats come join them. One orange cat climbs the tree too. How many cats are there in the tree?***

***I have 7 teddy bears. How many more do I need to make 10?***

***Use a plus sign and an equal sign to record addition.***

***I have 5 counters in my hand. I will put some in each hand. I will show you some. Tell me how many are hiding.***

***5 – 2 = 3***

***5 – 3 = 2***

***5 – 0 = 5***

***Count the flowers.* (Draw circles around the groups of objects.)**

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***\_\_\_ and \_\_\_***

***Circle the answer.* (Circle the groups of objects.)**

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***\_\_\_ and \_\_\_***

***1 and 4 4 and 1 5 and 0***

***Draw a group that shows one more.***

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***There are 2 apples on one plate and 3 apples on another plate. How many apples in all?***

***Show different ways to make 3.***

***Show what 3 and 2 more looks like.***

***Decompose \_\_.* (Note: Numbers up to 10 using “and” equations are 1st grade).**

**NUMBERS IN BASE TEN**

**Foundation for Place Value (1 problem) – NBT.1**

***Show one way to take apart 11 – 9.***

***I have 14 balls. Record 14 on the ten frame. Show how many groups of tens and ones there are.***

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***Equation:***

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***Count the circles in each Ten Square.***

***Count the total number of circles in both Ten Squares.***

 ***\_\_\_\_\_\_***

***\_\_\_\_ \_\_\_\_***

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***Count the objects. Circle ten objects, and count how many are left over.***

***\_\_\_ + \_\_\_ = \_\_\_\_***

***Say the number. Draw more counters to show the number.***

***13***

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**\_\_\_ and \_\_\_ more**

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***Group 13 objects into groups of tens and ones.***

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**Equation:**

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***Group objects into tens and ones.***

***I have to put my toy cars away in the tray. How many toy cars do I have? How many groups of tens and ones?***

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**MEASUREMENT AND DATA (MD)**

**Classifying & Attributes (1 problem ) – MD.1, MD.2, MD.3**

***Count the number of objects in groups and sort the groups by count.* (Display various groups.)**

***Sort the objects by size.***

***Circle the objects that are like this object.***

***Sort and classify.***

**(Display an analog clock.) *What time did \_\_\_ eat?***

***Sort and classify the following objects into categories. Label your categories and how many are in each one. (Use manipulatives for sorting.)***

***List 3 attributes of this shape.***

***Compare the two shapes. Which is wider?* (shorter, taller, thinner)**

**GEOMETRY**

 **Shapes (1 problem) – G.1, G.2, G.3, G.4, G.5, G.6**

***What is this shape? How do you know? Is it still a \_\_\_ if we turn it?***

**(Show multiple shapes.)**

***Find all of the \_\_\_\_\_\_. How do you know they are \_\_\_\_\_?* (triangles, squares, etc.)**

***Describe this shape.***

***\_\_\_ sides***

***\_\_\_ vertices (points)***

***![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\6U87718V\MC900250418[1].wmf]()Look at the objects. Draw an X on the object that shows above. Circle the object that shows below.***

***![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\Z2QCXXLL\MC900157407[1].wmf]()***

***Circle the two shapes that are the same.***

***Which shape(s) has***

***\_\_\_ sides and \_\_\_ vertices (corners)?***

***Square Circle Triangle Rectangle***

***Combine these shapes to make another shape.***

***Is this shape two-dimensional or three-dimensional? How do you know?***

***What real objects can you make with these shapes?***

***Describe the shape and location of roof.***

**MATH REASONING (1 problem)**

**(NOTE: If problems require several steps, such as a MARS task, you can do one step per day until the problem is solved.)**

**Teacher can select word problems to meet student needs from the textbook, MARS tasks, problems of the day, etc.**

**You can add these words to the Math Reasoning section of your board:**

**Action:**

**Operation:**

**Number Sentence:**

***Solve the problem using the PUSD Problem Solving Strategy:***

***The children feed the classroom fish. There are 3 fish bowls. Each bowl has 2 fish. How many fish do they feed. Show your work.***

***![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\PYIDDHO8\MC900390678[1].wmf]()***

***The children pass out 4 drums ![C:\Documents and Settings\Owner\Local Settings\Temporary Internet Files\Content.IE5\V9NWY4UQ\MC910217381[1].wmf]() and 2 triangles. How many children will be playing instruments?***

***There are \_\_\_ brown bears and \_\_\_ black bears. How many bears altogether?***

***There is a group of students on the play structure. \_\_\_ of them are on the slide and \_\_\_ of them are on the tunnel. How many students are on the play structure?***