Wilson County Schools

Kindergarten Community Resource Framework

Mathematics

2017-2018

Parental Involvement

Parent Roadmap for Kindergarten
Common Core Math Grade Level View

Questions to Ask When Helping Your Child with Math Homework

Keep in mind that homework in elementary schools is designed as practice. If your child is having problems, please let the classroom teacher know. When helping your child with his/her math homework,you don't have to know all the answers! Instead, we encourage you to ask probing questions so your child can work through the challenges independently.

What is the problem you're working on?
What do the directions say?
What do you already know that can help you solve the problem?
What have you done so far and where are you stuck?
Where can we find help in your notes?
Are there manipulatives, pictures, or models that would help?
Can you explain what you did in class today?
Did your teacher show examples that you could use?
Can you go onto another problem & come back to this one later?
Can you mark this problem so you can ask the teacher for an explanation tomorrow?

Vocabulary Cards- English
Vocabulary Cards- Spanish

Counting and Cardinality

Vocabulary

array: a set of objects arranged in rows and columns

count: to say numbers in order

equivalent: to have the same value

fewer: not as many

forward: to move ahead

greater than: more than another

less than: less than another

order: arrange according to size or value

Standards Included

K.CC.1 Count to 100 by ones and by tens.

K.CC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

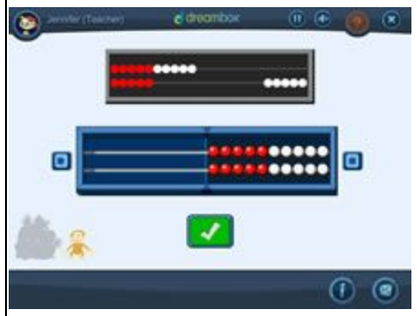
K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1

K.CC.7 Compare two numbers between 1 and 10 presented as written numerals.

Parent Activities

- Play number games during everyday activities, such as counting the number of steps, the number of trucks you see while driving, or counting the number of items going in the laundry.
- Read the calendar, and determine the number of days until an upcoming event.
- Young children can count the number of items that you bought at the store. If you buy multiples of 1 item (such as 10 cans of cat food), practice counting by 2's, 3's, or higher numbers
- Have your child count the change needed to pay for an item.
- Watch your child play to understand her mathematical knowledge. When your child counts, does she touch each object once? Is his voice in sync with his tag?
- Have your child distribute cookies or toys to family members, with each person getting an equal number.
- Many card games require counting and score keeping.
- Dice games and dominos help kids learn to quickly recognize groups of dots from 2 to 12.
- Play board games that involve counting squares, such as Chutes and Ladders.
- Tic Tac Toe and Connect Four build recognition of rows of 3 and 4 counters.

Online Activities



			 Cake monster  BUNNY COUNT  COYOTE CONCENTRATION  Creepy CRAWLERS

Numbers in Base Tens (NBT)

Vocabulary

and: to combine or join; put together two or more quantities

compose: to join or put parts together to make a whole

decompose: to separate into parts

difference: an answer to a subtraction problem

digit: any of the symbols 0,1, 2, 3, 4, 5, 6, 7, 8, 9

number line: a line in which each point represents a number

numeral: a symbol used to represent a number

place value:The value of where the digit is in the number, such as units, tens, hundreds

plus: The symbol (+); shows addition; to add or combine

sum: the answer to an addition problem

Standards Included

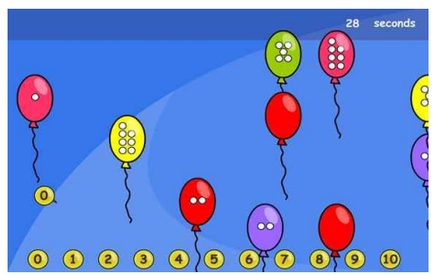
K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (such as 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

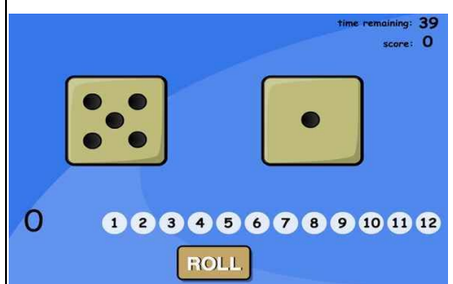
Parent Activities

- Help your child think about the permanence of a set. Put 6 pennies in a row, and then change the arrangement. Ask “did the quantity change?”
- Kindergartners love repetition and patterning, which fosters mathematical thinking. Clapping patterns help your child discover sequences and predict what comes next.
- Ask your child to count the items you want to buy, for example, 10 cans of tomatoes.
- Ask your child to add with objects. (I picked out 2 oranges and you picked out 3 oranges. How many do we have altogether?)
- Ask your child to subtract with objects. (We have 7 apples. I think that’s too many. If we put 2 back, how many will we have left?)

Online Activities

[Arrow Cards]
[Catch Ten]
[Dinosaur Place Value]
[Space Jumps]
[Videos]
[Compose Numbers]





Operations and Algebraic Thinking (OA)

Vocabulary

addend: Any of the numbers that are added together

and: to combine or join; put together two or more quantities

compose: to join or put parts together to make a whole

decompose: to separate into parts

difference: an answer to a subtraction problem

digit: any of the symbols 0,1, 2, 3, 4, 5, 6, 7, 8, 9

number line: a line in which each point represents a number

numeral: a symbol used to represent a number

place value:The value of where the digit is in the number, such as units, tens, hundreds

Standards Included

K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).

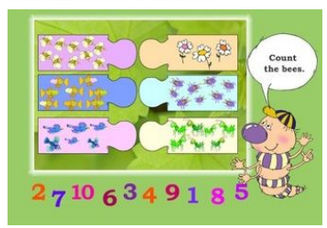
K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

K.OA.5 Fluently add and subtract within 5.

Parent Activities

- Ask your child to count the items you want to buy, for example, 10 cans of tomatoes.
- Ask your child to add with objects. (I picked out 2 oranges and you picked out 3 oranges. How many do we have altogether?)
- Ask your child to subtract with objects. (We have 7 apples. I think that's too many. If we put 2 back, how many will we have left?)

Online Activities



plus: The symbol (+); shows addition; to add or combine **sum: the answer to an addition problem**			

Measurement and Data (MD)

Vocabulary

analyze: examining parts to understand how they work together

attribute: a character that something has such as color, weight, height

capacity: the amount that something can hold

classify: to sort into categories or to arrange into groups by attribute

compare: to find how things are different or the same

data: a collection of facts, such as values or measurements

height: a measure of how tall something is

length: how long something is from end to end

Standards Included

K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

K.MD.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *For example, directly compare the heights of two children and describe one child as taller/shorter*.

K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.1

Parent Activities

- Look around the house to find groups of 2 objects, like pairs of gloves or socks. Look for groups of 3's, 4's, and on up to 10's.
- Have your child help sort the laundry by various categories — by color, or by whom an item belongs to.
- Take measurements for a project around the house.
- Using paper of different colors, make a paper chain with paper strips and tape. Encourage your child to create patterns by repeating colors and numbers of rings in a regular order. This can be done in connection with reading the calendar and counting down days to a special event.
- Collect objects in nature— leaves, rocks, shells and the like. When you get home, sort them by color, size, or type. How many different categories can you find? How many objects are in more than 1 category?

Online Activities

Measurement games

Geometry (G)

Vocabulary

2-dimensional: lying flat (square, triangle, circle, etc.)

3-dimensional: solid shapes; having points or sides that are not all on one plane

analyze: examining parts to understand how they work together

compare: to find how things are different or the same

cone: a solid 3 dimensional object that a has a circular base and one vertex

corner: the place where two lines meet

cube: box shaped solid object that has 6 identical square faces

cylinder: a solid object with 2 identical flat ends that are circular and 1 curved side

height: a measure of how tall something is
hexagon: a six-sided polygon

length: how long something is from end to end

rectangle: a parallelogram with four right angles

sphere: a 3-dimensional figure that is completely round; a ball

Standards Included

K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.

K.G.2 Correctly name shapes regardless of their orientations or overall size.

K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

K.G.4 Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).

K.G.5 Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

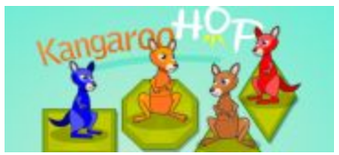
K.G.6 Compose simple shapes to form larger shapes. *For example, "Can you join these two triangles with full sides touching to make a rectangle*?"

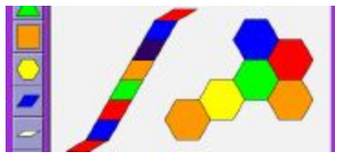
Parent Activities

- At the grocery store, ask your child to find items that are triangles, circles, rectangles, and other shapes.
- Ask your child to recognize or stack the groceries you bought by container shape or organize by size.
- Organize a scavenger hunt where your child has to find objects of different shapes
- Make snowflakes using symmetry. Fold a square piece of paper in half diagonally to make a triangle, then fold in half 2 more times. Cut out small diamond or circular shapes from the edges, and then unfold it. Experiment with different numbers of folds and shapes.
- Look for and discuss 2-D and 3-D shapes. (I see something that's a cube. Can you find it? or Can you see some rectangles out the window? How about circles? Do you notice more rectangles or circles?)

Online Activities

Shapes





Magical Shape Hunt

triangle: a 3-sided polygon **vertex: a corner point of a geometric figure**			

Assessment Practice

Practice Assessment Activities

K-5 WEBSITE RESOURCES

Math at Home
www.mathplayground.com
Online Math Games
Math Activities online
Online Manipulatives
Math Activities
Math Challenges for the Family
Math Zone
Common Core for Parents with students with disabilities
Math Videos

	Result Unknown	Change Unknown	Start Unknown
Add to	Two bunnies sat on the grass. Three more bunnies hopped there. How many bunnies are on the grass now? 2 + 3 = ?	Two bunnies were sitting on the grass. Some more bunnies hopped there. Then there were five bunnies. How many bunnies hopped over to the first two? 2 + ? = 5	Some bunnies were sitting on the grass. Three more bunnies hopped there. Then there were five bunnies. How many bunnies were on the grass before? ? + 3 = 5
Take from	Five apples were on the table. I ate two apples. How many apples are on the table now? 5 – 2 = ?	Five apples were on the table. I ate some apples. Then there were three apples. How many apples did I eat? 5 – ? = 3	Some apples were on the table. I ate two apples. Then there were three apples. How many apples were on the table before? ? – 2 = 3

	Total Unknown	Addend Unknown	Both Addends Unknown[1]
Put Together/ Take Apart[2]	Three red apples and two green apples are on the table. How many apples are on the table? 3 + 2 = ?	Five apples are on the table. Three are red and the rest are green. How many apples are green? 3 + ? = 5, 5 – 3 = ?	Grandma has five flowers. How many can she put in her red vase and how many in her blue vase? 5 = 0 + 5, 5 = 5 + 0 5 = 1 + 4, 5 = 4 + 1 5 = 2 + 3, 5 = 3 + 2

	Difference Unknown	Bigger Unknown	Smaller Unknown
Compare[3]	("How many more?" version): Lucy has two apples. Julie has five apples. How many more apples does Julie have than Lucy? ("How many fewer?" version): Lucy has two apples. Julie has five apples. How many fewer apples does Lucy have than Julie? 2 + ? = 5, 5 – 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Lucy has two apples. How many apples does Julie have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Lucy has two apples. How many apples does Julie have? 2 + 3 = ?, 3 + 2 = ?	(Version with "more"): Julie has three more apples than Lucy. Julie has five apples. How many apples does Lucy have? (Version with "fewer"): Lucy has 3 fewer apples than Julie. Julie has five apples. How many apples does Lucy have? 5 – 3 = ?, ? + 3 = 5