Wilson County Schools

2nd grade Community Resource Framework

Mathematics

2017-2018

Parental Involvement

Parent Roadmap for 2nd grade
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 (1) English (2)
Vocabulary Cards- Spanish (1) Spanish (2)

Numbers in Base Tens (NBT)

Vocabulary

addends: numbers being added within an equation

comparison: a number sentence that shows if two numbers are greater than, less than, or equal to one another

compose: to put together to create a whole

decompose: breaking a whole apart into smaller portions

difference: an answer a subtraction problem

expanded form: a way to write a number to show the value of each digit (465= 400+60+5)

fact family: a set of related equations

regroup: to compose or decompose a number; to rename a number

skip count: to count by a given value

standard form: a way to write numbers by using the digits 0-9, with each digit having a place value

sum: an answer to an addition problem

Standards Included

2.NBT.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:

2.NBT.2 Count within 1000; skip-count by 5s, 10s, and 100s.

2.NBT.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

2.NBT.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.

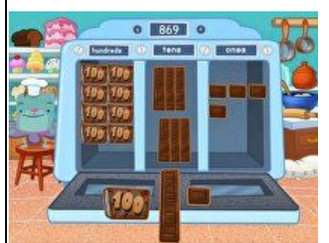
2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.

2.NBT.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose

Parent Activities

- Place Value Game
- The Number Sentence Game
- Practice counting down from any double-digit number. For example, use a calendar to count down the number of days to an upcoming event.
- Prepare for multiplication by helping your child think in groups. Ask “how many fingers do five people have?”
- Try a variation on the card game “War.” When the higher card takes the lower card, subtract the lower number from the higher number, and the player who won that play wins those points.
- Give your child the change in your pocket and ask how many different ways she can make 25 cents.
- Play a variation on the game “Go Fish.” Instead of asking for cards with numbers that match, players take turns asking for cards that, added to the card she has, adds up to 10. Count face cards as zero, aces as 1’s.
- I spy numbers game
- Find the missing digit game
- At this age kids are developing more complex ways of reasoning — they like strategic thinking games like checkers, chess, Monopoly, and Clue.
- Dominoes
- Mancala
- Cribbage
- Everyday mathematics

Online Activities



	or decompose tens or hundreds. **2.NBT.8** Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. **2.NBT.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.		

Operations and Algebraic Thinking (OA)

Vocabulary	Standards Included	Parent Activities	Online Activities
add:to join groups together **addend: numbers that are added** **and: to combine or join; put together two or more quantities** **column: a group of items shown vertically** **compose: to join or put parts together to make a whole** **count back: start at a number and count back** **count on: start at a number and count forward** **decompose: to separate into parts** **difference: an answer to a subtraction problem** **equation: a number sentence that uses the**	**2.OA.1** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.1 **2.OA.2** Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. **2.OA.3** Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends. **2.OA.4** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.	• What's my number • Terrific tens go fish • Addition card game • Menu math • Step on it math game • Equation Card game • Everyday mathematics • Count out several sets of items of 20 or more and have your child create an addition or subtraction equation using the items. • Talk with your child about everyday situations where addition and subtraction are needed. • Using dominoes have your child add or subtract the numbers shown • Call out a number and have your child call out addition and subtraction facts where that number is the answer. • When counting items discuss if the number is odd or even.	   

equal sign **even number: whole numbers the end with a 0, 2, 4, 6, or 8** **greater than: a number larger than another >** **less than: a number less than another <** **minus: The symbol (-); show subtraction** **number line: a line in which each point represents a number** **odd number: a whole that ends in 1, 3, 5, 7, or 9** **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** **related facts: "fact family" using the same digits using the inverse operation** **sum: the answer to an addition problem** **ten frame: a rectangle used to build numbers** **unknown number: a number that is not given in a problem**			 

Measurement and Data (MD)

Vocabulary

analog clock: a clock with a minute hand and an hour hand

centimeter (cm): a metric unit used to measure

length (the width of the smallest part of your fingernail)

compose: to join numbers to create tens, hundreds, thousands, etc.; to join or put together parts to create a whole

decompose: to break into smaller parts

digital clock: clock that shows time in number

height: a measure of how tall something is

key: part of a map, picture, or diagram that shows what the symbols mean

line plot: graph that shows data on a number line with Xs

meter: a metric unit used to measure length (think of the height of a door from the door knob to the floor)

yard (yd): a customary unit for measuring length or distance (3ft=1yd)

Standards Included

2.MD.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

2.MD.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

2.MD.3 Estimate lengths using units of inches, feet, centimeters, and meters.

2.MD.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

2.MD.5 Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.

2.MD.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences within 100 on a number line diagram.

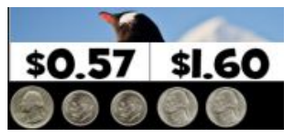
2.MD.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

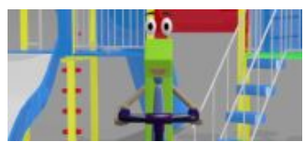
2.MD.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and

Parent Activities

- Measurement Scavenger Hunt
- Slide it
- Measuring Game
- Telling time throughout the day
- Time Management for Kids
- Money Tic Tac Toe
- Money math In everyday life
- Everyday mathematics
- Allow your child to measure things around the house using a ruler, yardstick, or measuring tape. Talk about how some tools are more appropriate to use when measuring certain items than others.
- Create a schedule for the day talking about the time needed to complete items.
- Create a budget with your child and discuss the value of dollars, quarters, dimes, nickels, and pennies.
- Work with your child in adding values of items from a grocery flyer.
- Organize information with your child about things of interest (bar graphs, pictographs, line plots, and tally charts)

Online Activities





	¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have? **2.MD.9** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units. **2.MD.10** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.		

Geometry (G)

Vocabulary

2-dimensional: lying flat (square, cirlce, triangle, rectangle, 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

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

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

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

decompose: to break up a number or object to show its parts

hexagon: a six-sided polygon

partition: to divide into groups or parts

Standards Included

2.G.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.1 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

2.G.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Parent Activities

- Pizza Fraction
- Household fraction
- Patchwork placemats
- Everyday mathematics
- 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
- 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

Compose shapes

Edges and Faces

Solid Shapes

Fraction Spin the Wheel

rectangle: a parallelogram with four right angles **rectangular prism: a solid (3-dimensional) object which has six faces that are rectangles** **rhombus: a 4-sided flat shape with straight sides where all sides have equal length, opposite sides are parallel and opposite angles are equal; a type of parallelogram** **sphere: a 3-dimensional figure that is completely round; a ball** **trapezoid: A 4-sided flat shape with straight sides that has a pair of opposite sides parallel** **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