



Getting ready for First Grade!

In Kindergarten, instructional time in math focused on two critical areas:

Critical Area One

- Representing, relating, and operating on whole numbers, initially with sets of objects.

Critical Area Two

- Describing shapes and space. More learning time in Kindergarten should be devoted to numbers than to other topics.

The following summer math activities will enable your child to review math concepts and reinforce skills learned this year. Just a few minutes each day spent “thinking and talking math” will help reinforce the math that has been learned and begin to bridge the foundation for extending to the concepts that will be developed next year. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. While your child is working, discuss the math concept being reinforced.

We hope that you will enjoy the activities, extend them, create new ones, and **have fun!**

DOs and DON'Ts for Helping at Home

DO:

- Expect your child to work hard and be good at math.
- Ask “How did you get that?” “Can you show me another way to do that?” “Remember how you did _____, see if you can use that same strategy.”
- Encourage your child to stick with a task even if it seems challenging.
- If you see signs of frustration, suggest leaving the problem for a day or two and returning to it with fresh perspective at another point.
- Listen carefully to how your child is thinking about math.

DON'T:

- Try not to tell your child how to figure something out; he or she will learn much more by figuring it out for him or herself. You can always say, “Show me how you figured that out.” Then wait and listen and say “Oh, that’s nifty. Here’s how I might figure it out. How are our strategies the same?”

DO ASK -- DON'T TELL

You can ask great questions without telling your child what to do!

In the beginning....

- What do you know?
- What do you need to find out? How might you begin?
- What should you do first?

While working....

- How can you organize your information?
- Can you make a drawing to explain your thinking?
- What would happen if...?
- What do you need to do next?
- Do you see any patterns? Any relationships?
- Can you predict...?
- Does this remind you of any other problems you’ve done?

Reflecting on Solutions...

- Is your solution reasonable?
- How did you arrive at your answer?
- Can you convince me that your solution makes sense? What did you try that didn’t work?

Responding...

Your response is as important as your initial question. Continue to discuss problems even after children have their answer. This will give your child a chance to clarify thinking and make more connections.

You can ask:

- How do you know that your answer makes sense?
- Do you know another way to solve this?
- Do you think there is more than one answer? How could we find out?

20 Days of Summer Math Fun in JULY

<p>1. Count how many shoes YOU have. Write down the number. Count how many shoes another family member has. Write down the number. Who has more/less?</p>	<p>2. Talk with someone about things you might find Outside (rocks, leaves, sticks). Go outside on a nature walk and collect small items you find. Sort them by color, shape, or size and count them.</p>	<p>3. Use sidewalk chalk to write all the numbers (in order) that you can. Next to each number draw that many suns. (Use paper and pencil if you do not have chalk.)</p>	<p>4. Find 10 coins. Toss the ten coins. How many land heads up? How many land tails up? Record your numbers. Did you get the same result? Keep repeating! What are you noticing?</p>	<p>5. Let's go shopping! In my cart I have 12 eggs, six apples, and 3 cans of soup. Draw a picture of my cart and what is inside. What do I have the most of?</p>
<p>6. How many jumping jacks can you do it one minute? Is it more or less than 20? How do you know?</p>	<p>7. Ask your family and friends "Do you like sharks or lions better?" Record everyone's answers. Which animal did people like the most/least or were they the same?</p>	<p>8. Count backwards how long it will take you to put on your shoes. For example, when you start putting them on count 20, 19, 18...</p>	<p>9. Grab a handful of objects (pennies, beads, marbles...) Guess how many there are. Count your objects. Were you close to your estimate?</p>	<p>10. Look at some of your toys. Try to sort them into groups. (by color, by size, by shape, by type) How many are there in each group?</p>
<p>11. Count the people who live in your house with you. How many toes do they have altogether? How many fingers? Draw a picture and label it.</p>	<p>12. Write your name on a piece of paper. How many letters are there in your name? Write each family member's name on a paper too. How many letters are there in their names? Write the number beside each name.</p>	<p>13. Walk around the house. How many steps does it take you to get around your house? Then try giant steps. Which used more steps? Make sure you start and stop at the same spot!</p>	<p>14. Hop on your right foot and count how many hops you can do. Hop on your left foot and count how many hops you can do. Which foot could you hop on more? Which foot could you hop on less? Compare.</p>	<p>15. Read a counting book or talk about counting with someone and then make a counting book of your own. Did you decide to make it counting forward or backwards?</p>
<p>16. Make a picture using 2 circles, 3 triangles, 1 square, and 5 rectangles. Explain how you made it to someone! Have them count all the shapes.</p>	<p>17. Draw and label a picture of your family from tallest to shortest. Measure them using blocks, your feet, your hands, forks, pencils, etc. Remember to have them lie down!</p>	<p>18. Count backwards starting at 10... Then starting at: 15... Then starting at: 20...</p>	<p>19. Make numbers or shapes out of playdough. If you don't have play-dough draw shapes and numbers. Count how many numbers you drew. Count how many sides your shapes have.</p>	<p>20. Pick a room in your house? How long is it? Measure with blocks or toys. Measure with your feet. Which was more? Which is less? Why?</p>

20 Days of Summer Math Fun in AUGUST

<p>1. Count the number of steps it takes to get from your front door to the refrigerator and from your front door to the bathroom. Represent these numbers. Which took longer?</p>	<p>2. Draw three cube towers, the first with 3 cubes, the second with 5 cubes, and the third with 7 cubes. Circle the tower that is the tallest and put an X on the tower that is the shortest.</p>	<p>3. Three dogs were playing in the park. One more dog came to play. How many dogs are playing in the park? Draw a picture.</p>	<p>4. Name five different places you see numbers outside. (on street signs, stores, license plates...) Draw a picture of the places.</p>	<p>5. Skip count to 100 by 5s. Skip count to 100 by 10s. Which took longer? Write your answer.</p>
<p>6. Bobby Bear is missing 5 buttons on his jacket. How many ways can you use blue and red buttons to finish his jacket? Draw a picture of all your ideas.</p>	<p>7. Draw a picture that is divided into 3 parts. Label them morning, afternoon, and night. Draw a picture of what you do at each of these times. Which time of the day do you do the most things?</p>	<p>8. Complete a yes/no survey asking the people in your house, "Do you like the rain?" Record their answers by writing Yes and No. How many people said yes? How many people said no?</p>	<p>9. Find 10 coins. See how many different ways you can make the number 10. 5 heads and 5 tails, 7 heads and 3 tails, 7 tails and 3 heads, etc. Record your findings with pictures.</p>	<p>10. Pick a number from 1- 12. Find that number around your house! Look at clocks, phones, books, magazines, etc... Pick another number and repeat!</p>
<p>11. Play a strategy game Connect 4 or Checkers. Did your strategy work? Will you try a different strategy next time you play? If you don't have a game, see who can jump the most in 1 minute. Record your answers.</p>	<p>12. Estimate how many bites it will take to finish your cereal, soup, rice, sandwich, etc. before you start eating! Count each bite as you eat. How close were you to your estimate? Were you over or under?</p>	<p>13. Go around your house (or wherever you are staying) and count the windows and doors. Are there more windows or doors? Draw the one with more.</p>	<p>14. Practice "counting" on from numbers other than 1. Example: Start at 4 and stop at 18, start at 17 and stop at 20, start at 3 and stop at 10. Now come up with your own start/stop numbers.</p>	<p>15. Name different objects that come in groups of 1,2, 3...etc. (12 eggs in a carton) Make your own book from 1 to 12 drawing a different group of objects for each number! Be sure to add a title.</p>
<p>16. I am thinking of a number. It has 1 ten and 5 ones. What number am I thinking of? (15) Make up some riddles using tens and ones. (1-19)</p>	<p>17. See how many people you can get to exercise with you. Do 10 jumping jacks, 10 push-ups, 10 sit-ups, and 10 toe-touches. How many exercises did you do? Count by 10's.</p>	<p>18. Read Shape, Shape, Shapes by Tana Hoban or talk about shapes with your child. Walk outside. What shapes do you see? Draw all the shapes you see. Count them.</p>	<p>19. Build something with 20 blocks or Legos. Describe your structure and the shapes you used. Draw your structure and label it.</p>	<p>20. Play with bubbles. How many can you blow in one minute? (you can use bubble gum or bottle bubbles) Draw a picture and label your bubbles with number</p>

Recommended Math Reading List

Author	Title
Aker, Suzanne	What Comes in 2's, 3's, and 4's?
Angelou, Maya	My Painted House, My Friendly Chicken and Me
Anno, Mitsumasa	Anno's Counting Book. Anno's Counting House
Baer, Edith	This Is the Way We Eat Our Lunch
Bang, Molly	Ten, Nine, Eight (Available in Spanish)
Barton, Byron	Building a House
Bogart, Jo Ellen	Ten for Dinner
Briggs, Raymond	Jim and the Beanstalk
Bunningham, John	Would You Rather...
Burns, Marilyn	The Greedy Triangle
Carle, Eric	Rooster's Off to See the World
Cooper, Jason	Skyscrapers: Man-Made Wonders
Crews, Donald	Ten Black Dots (Available in Spanish)
Crosbie, Michael and Rosenthal, Steve	Architecture, Shapes
Dale, Penny	Ten in Bed
DeRubertis, Barbara	Count on Pablo (Math Matters Series.)
Dorros, Arthur	This Is My House

Duke, Kate	Twenty is Too Many
Ehlert, Louise	Fish Eyes
Emberley, Rebecca	My Numbers Mis Numeros
Falwell, Cathryn	Feast for Ten
Felix, Monique	The House
Friedman, Aileen	Cloak for the Dreamer
Gauch, Patricia Lee	Christina Katerina and the Box
Grossman, Bill	My Little Sister Ate One Hare
Grossman, Virginia and Sylvia Long	Ten Little Rabbits
Hamm, Diane Johnson	How Many Feet in the Bed?
Harris, Trudy	100 Days of School
Hoban, Tana.	Cubes, Cones, Cylinders, & Spheres. Shapes, Shapes, Shapes
Jonas, Ann	Splash / The Quilt
Karavasil, Josephine	Houses and Homes Around the World
Kassirer, Sue	What's Next, Nina? (Math Matters Series)
Kushkin, Karla	The Philharmonic Gets Dressed
Lionni, Leo	Inch by Inch
Lobel, Arnold	"A Lost Button," in Frog and Toad Are Friends
McBratney, Sam	Guess How Much I Love You
Merriam, Eve	12 Ways to Get to 11
Metropolitan Museum of Art	Museum Shapes

Micklethwait, Lucy	I Spy Two Eyes: Numbers in Art
Mora, Pat	Uno, Dos, Tres, One, Two, Three
Morris, Ann	Houses and Homes
Murphy, Stuart J	Animals on Board / The Best Vacation Ever / Super Sand Castle Saturday
Onyefulu, Ifeoma	Emeka's Gift: An African Counting Story
Paul, Ann Whitford	Eight Hands Round: A Patchwork Alphabet
Peek, Merle	Roll Over! A Counting Song