



GETTING READY FOR GRADE 3! MATH



This year in Grade 2 mathematics learning was focused on the following areas:

- Write, add, and subtract numbers up to 1,000
- Use standard units to measure
- Describe and analyze shapes

Next year in Grade 3 your child will continue to develop their mathematic skills by:

- Developing an understanding of multiplication and division
- Developing an understanding of fractions
- Finding area of rectangular and irregular shapes
- Describing, analyzing, and comparing shapes

The following choice boards provide a sample of activities that you might do with your child over the summer to reinforce and review concepts, begin to bridge new concepts for the following year, and keep their mathematical curiosity alive. Engagement in mathematics leads to more academic success, so giving students voice over how they do the work and choice over what work they do is crucial.

The choice boards are grouped by topic based on the reporting domains— Numbers and Operations in Base 10, Operations and Algebraic Thinking, Measurement and Data, Geometry, and Mathematical Practices. Have a conversation with your child about what areas they are interested in, what activities they would like to engage in, and what areas they would like to grow as a mathematician. Students are encouraged to revisit any activities they are interested in.

Try the tasks together and have fun thinking and working together.

- Remember every child can be a strong mathematician.
- Encourage your child to stick with a task even if it seems challenging.
- Listen carefully to how your child is thinking about math.
- If you see signs of frustration, leave the problem and return to it with fresh perspective later

Ask:

If your child is stuck and unsure how to begin...	While your child is working....	When your child has completed the problem and reflecting on the answer...
<ul style="list-style-type: none"> -What do you know? -What do you need to find out? -How might you begin? -What should you do first? 	<ul style="list-style-type: none"> -How can you organize your information? -Can you make a drawing to explain your thinking? -What do you need to do next? -Do you see any patterns? -Does this remind you of any other problems you've done? 	<ul style="list-style-type: none"> -Is your solution reasonable? -Can you convince me that your solution makes sense? What did you try that didn't work? -How do you know that your answer makes sense? -Do you think there is more than one answer? How could we find out?

Numbers in Base 10: Place value to 1,000

<p>Create your own 'Which one doesn't belong'. Write 4 different numbers. Find a way that 1 number does not belong to the rest (For example, 35 is odd but the rest of the numbers are even). Create a reason for each number.</p>	<p>Choose a number below 1,000. Write down everything you know about that number. Ask your family members what else they know about the number.</p>	<p>Write all the numbers in order that you can. Next to each number draw something (suns, hearts, flowers, triangles) that represents that number. What patterns do you notice?</p>
<p>Learn to count forwards and backwards by 10s up to 200 in a language you do NOT know. What patterns do you hear when you say the words?</p>	<p>Ask someone in your family to tell you 4 different digits. What are all the different numbers you can make? Put them in order from least to greatest.</p>	<p>Do the 1,000 exercise challenge! Choose 5-10 different exercises and decide how many of each you will do. The total must be exactly 1,000!</p>
<p>Walk around your entire house in giant steps. How many steps does it take? Now walk with baby steps. How many steps does it take? Make sure you start and stop in the same spot!</p>	<p>Read a number book on Epic or Youku like The Doorbell Rang, Two of Everything, or One Hundred Hungry Ants. Then write your own number book!</p>	<p>Write down the years each person in your house was born. Order the numbers from least to greatest.</p>

Operations and Algebraic Thinking: Addition and subtraction, working with equal groups

<p>What are all the different ways you can sort your stuffed animals into equal groups? What number sentences match your groups.</p>	<p>Time how long you can stand on 1 foot. Then time how long you can stand on the other foot. Add the total, is it an odd or even number? How do you know?</p>	<p>Write all the addition facts that equal 20.</p>
<p>220 is the answer. What are five different addition sentences that you could write?</p>	<p>313 is the answer. What are five different subtraction sentences that you could write?</p>	<p>Gather as many items as you can in 1 minute. Have a family member gather as many items as they can in 1 minute. What is the total number of objects?</p>
<p>Bake some cookies, brownies, or granola bars. What are all the different ways you could divide them into equal groups for your family and friends?</p>	<p>Go on a number hunt. Name 5 different places you see numbers outside/in your house. Draw a picture of the places and say the numbers in at least 2 languages.</p>	<p>Write addition and subtraction challenge story problems for a family member. Pretend to be a teacher and teach them how to solve them using your favorite strategy.</p>

Measurement and Data: Measuring using standard units, time, and money, represent data

<p>Create a menu of your favorite foods for your dream restaurant. Give each item a price. Ask family members to order food and tell them the total price of their food. Bonus: Make a menu using a different currency!</p>	<p>Create 5 different ways to show 1 yuán 元 using jiao 角 and fēn 分.</p> <p>Create 5 different ways to show \$1.00 using quarters, dimes, and nickels.</p>	<p>Pick a room in your house. Estimate how long it is using two different measuring tools. Measure it at least two different ways (using blocks, markers, paper clips, rulers, your feet). What do you notice?</p>
<p>What math tools would you use to measure a book, a car, a shoe, and a door? Are they the same or different? Why?</p>	<p>Collect more than 20 items from your kitchen (bowls, chopsticks, cups, food items). Measure the lengths and create a bar graph to show the information.</p>	<p>Make a tally chart of the different types of items in your refrigerator. Be sure to include a title, labels. What do you notice?</p>
<p>Name three activities you did yesterday. What time did you do each activity? Draw a picture of each activity and write a.m. or p.m. for each activity</p>	<p>Create a schedule for your day with times and activities. Draw a clock to show the start and end times of each activity. The next day create a schedule for your family.</p>	<p>Collect more than 20 items from your bedroom (socks, markers, books, pillows). Measure the lengths and create a bar graph to show the information.</p>

Geometry: Reasoning with shapes and their attributes

<p>How many different quadrilaterals can you find in your house? Name each quadrilateral and describe the shape.</p>	<p>Create an animal using only triangles, quadrilaterals, pentagons, and hexagons. Make a different animal.</p>	<p>Find 'almost' shapes. Find things that are 'almost' a triangle, square, rectangle, circle but are not. Describe why they are NOT that shape.</p>
<p>What are all the things in your bedroom that are hexagons? Draw them. What are all the things in your bedroom that are trapezoids? Draw them.</p>	<p>2 columns with 12 in each row give me 24 squares. Find the other rectangles I could make with exactly 24 squares.</p>	<p>Go on a Shape Hunt around your house! Look for items shaped like a square, rectangle, and triangle. Draw and label the items.</p>
<p>Create a sign for your door with your name using only 1 shape (like triangles) repeatedly to make all the letters.</p>	<p>How many times can you fold a piece of paper in half? Predict and try. Try it with 4 different sizes of paper. Can you make the same number of folds with all sizes?</p>	<p>What are all the things you see out the window that are rectangles? Draw them.</p>

Mathematical Practices: Problem Solving, Modeling, Communicating Reasoning

<p>Gather two different items in your house. Name 3 ways that they are the same and 3 ways that they are different.</p>	<p>Create your own 'Which one doesn't belong'. Gather 4 different objects in your house. Find a way that 1 item does not belong to the rest (For example, the cookie does not belong because it is round and the other objects are square). Create a reason for each item.</p>	<p>Draw or take a picture of a building. What are all the different math questions you could ask? Ask another family member to think of 3 questions.</p>
<p>Draw a picture of yourself as a strong mathematician. Label what tools you need and write what you would do.</p>	<p>Write "Would you rather...?" number questions. For example "Would you rather have 13 large scoops of ice cream or 23 small scoops of ice cream? Why?" or "Would you rather have 10 minutes of free time at 9:00 and 15 minutes of free time at 10:00 OR 30 minutes of free time at 11:00? Why?"</p>	<p>Create your own number cards and number game. Write down the rules. Teach it to your parents or family member.</p>
<p>Create a number poster of important numbers in your life (your age, number of people in your family, your house numbers). Be sure to label what each number is!</p>	<p>Create a family workout based around a certain number up to 100. Have your family do the exercises with you. (For example if the number is 61 you could do 61 jumping jacks, 61 push-ups, run for 61 seconds...)</p>	<p>Create activities for your family to do all based around a number. (For example if you choose 20 you might choose to have everyone read for 20 minutes, play outside for 20 minutes, eat 20 bites of food...)</p>