



GETTING READY FOR 3RD GRADE MATHEMATICS

Check the weather each day. What is the high temperature? What is the low temperature? Is it warmer or cooler than yesterday? What would the temperature be if it were ten degrees warmer or cooler? Chart the actual temperatures and create a bar graph. Compare the temperature on a thermometer where you live to the reported temperature. Why might it be different? What is the difference between the highest and lowest temperatures? Remember that thermometers are similar to a number line!

Working on: Represent and interpret data in picture and bar graphs.

Cook with your child. Pick a recipe that has fractions and observe the measuring cup. How many $\frac{1}{2}$ cups does it take to equal a whole cup? How many $\frac{1}{4}$ cups does it take to equal a whole cup? What might you do if you needed to measure two cups but didn't have a two-cup measure? Don't limit yourself to fractions; take this opportunity to discuss addition and subtraction too!

Working on: Fractions are a key portion of third grade math curriculum. Practice real-world applications of fractions.

Play Card Games: Card games allow opportunity to build fluency. Try these or make up your own!

Addition Top-it: flip two (or more) cards and find the sum of the two (or more) the greater sum wins.

Subtraction Top-it: flip two cards and find the difference of the two the greater difference wins.

Name that Number: Draw one card. This is the target. Now draw 5 more cards. Use addition or subtraction and as many of the 5 cards as possible to make the target number.

Visit [WCSD C&I for more family games and videos!](#)

Math Cards: Printable cards to use with children to help build reasoning skills around basic facts.

Play Commercially Available Games: Many commercially available games may be used to practice mathematics. Games such as cribbage and rummy help support using reasoning strategies to quickly add.

Note: Avoid computer games that emphasis doing things quickly, has timers etc. Research has demonstrated that these actually increase anxiety and slow down the learning of mathematics.

Working on: Building fluency and mental reasoning skills through game play and strategy use.

Look for equal groups everywhere you go! Multiplication is about equal groups. If a car seats five people, how many people would three of that same car seat? If there are four quarters in a dollar, how many quarters are in two dollars? Dogs have four legs, how many legs are on four dogs? Bicycles have two wheels, how many wheels are on seven bicycles?

One way to think of division is in equal sharing. How would you share 8 cookies with four kids so that they each get the same amount of cookies? How would you equally share 100 pennies with a class of 20 students? How would you equally share 30 Legos between three siblings?

Look around to see how things are packaged. Think about equal groups! If you buy drinks in a six-pack, how many drinks would be in three groups of six? Eggs are packaged in a dozen, how many eggs are in two dozen? Cupcakes and boxed chocolates are often packaged in rows. If I have six rows of four, how many cupcakes are in that package?

Make a list of things that are packaged as a group. How many are in each group?

Working on: Build background for students to move from addition and subtraction to multiplication and division. Help children to start thinking about the world in equal groups!

Plan a garden together. Research the plants you choose. How far apart should they be planted? How deep in the soil should the seed be planted? Build rectangular garden beds. What is the perimeter of the garden bed? What is the area of the garden bed? How many plants will fit in this space based on the distance required between plants? Measure and record the height of your plants as they grow. [Geoboard tool.](#)

Working on: In second grade students estimate and measure length in standard units. In third grade students find the perimeter and area of rectangles and work on multi-step word problems.

Check schedules for everything you plan to do. What time will the store open? What time will the store close? How many hours will the store be open today?

Use a table and drawings to show how you collect the start and end time of different activities. How do you figure out how long you spent doing each one? For example, if you leave for a bike ride at 11 a.m. and return at 12:30 p.m., how long did we spend riding your bike? Keep a chart of about how long it takes your to do things. [Clock tool.](#)

Working on: In third grade students will tell time to the minute and work with elapsed time. Get a 'jump start' before the school year begins.

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Discuss examples of mathematics in everyday life: TV listings, road signs, recipe measurements, time, and so on.

Count orally by 2s, 5s and 10s when doing chores or when waiting. Ask questions such as: how many 5's did you count to get to 30? Occasionally count down, for example: 90, 80, 70, 60, and so on. Count numbers of objects around the house. Think about the most efficient way of counting (is it by 1s, 5s, 10s). Have your child keep track using tally marks (4 lines down and one line across to show 5). For example, count the number of items in a cabinet or drawer. Cut out numbers from a sales flyer that tell the prices of different kinds of food. Put the numbers in order from least to greatest. Tell which number is the highest and which is the lowest. What is the difference between the two?

Working on: Understand how counting relates to addition, subtraction and beginning multiplication understandings.

Keep a number scroll: Instead of recycling the cardboard left on an empty paper towel roll; use it to make a number scroll. Throughout summer, have your child add to the scroll until they reach 1,000! What patterns are they noticing? Did they begin taking any shortcuts instead of just writing the next number?

Working on: Counting and writing numbers. Identifying structure and patterns in our number system.

Gather symmetrical objects (mirror, piece of paper, circle, etc.). Ask your child to show you one half of the object, perhaps by using string to mark the halfway point or folding a paper circle. Use this opportunity to explain how parts are equal in size. Think about one whole, one half, one quarter.

Working on: Understanding dividing a simple shape (rectangle, square, circle) into a whole, two equal halves, or four equal sized quarters. (Please note that some children may make quarter sized pieces that are equal in area (size) but have a different shape. This is great if they come up with it on their own!

Adapted and Revised from the Ontario Ministry of Education's *Doing Mathematics with Your Child* and CESME, The University of Chicago Parent Resources.

More resources on the web:

[WCSD enVisionmath2.0 login](#)

[Washoe County School District Family & Community page](#)

[Bedtime Math \(5 minutes of math at different levels\)](#)

[Helping Your Child Learn Math \(English\) Free Book!](#)

[Helping Your Child Learn Math \(Spanish\) Free Book!](#)

[Problem solving & reasoning through coding \(code.org\)](#)

[Online math tools & manipulatives](#)

3-D Hunt. Help your child look for three-dimensional objects: cubes, cones, spheres (such as a ball), prisms (similar to a box), pyramids and cylinders (similar to a soda can). Talk about how a soda can or a paper towel roll is *like* a cylinder. Play *I Spy* with your child by asking them to guess an object you identify by its shape: "I spy something that is round," "I spy something that has a cylinder shape." Make this game more challenging by stating two shapes: "I spy something that is round and has a square on it."

Working on: Recognizing 3-D shapes in our world. Tell why a paper towel roll looks like a cylinder but isn't an actual cylinder (cylinders are solid with circular bases on both ends; whereas, paper towel rolls are hollow in the middle with open ends).

Build shapes and structures with toothpicks and marshmallows or gumdrops. Begin with flat 2-dimensional shapes, and then try building 3-dimensional shapes such as cubes, pyramids, and prisms.

Working on: Children developing the understanding of words to describe shapes. Have them name each shape. Note: Children are building structures that look like 2-D and 3-D shapes. These are models of the shape not actually the shape itself.

