

GETTING READY FOR **2ND GRADE** MATHEMATICS

Make up word problems about all kinds of real-life experiences that require your child to add and subtract. What would happen if we had ten more pets, returned two cards, doubled your allowance, or bought twice as many apples?

<u>Working on:</u> In first grade students solve addition and subtraction word problems within 20, by the end of second grade they should be able to solve addition and subtraction word problems within 100.

Build something together using materials found in the home. While building, focus on including engineering ideas such as making a plan. Be sure to choose appropriate measurement tools and practice using them accurately. How do these tools help you compare objects by length? Why is accuracy important in construction? Try a free online workshop at Home Depot.

Consider other real world applications for linear measurement. Complete a sewing or craft project together. How did you know where to cut the fabric?

<u>Working on:</u> In second grade students will measure objects by selecting tools such as rulers, yardsticks, meter sticks and measuring tapes.

Check the weather each day for a week or two. Determine four categories to describe the weather (sunny, cloudy, windy, rainy). Create a bar graph to show your data.

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 temperatures using a table. Compare the temperature on a thermometer at your home to the reported temperature. Why might it be different? Remember that thermometers are a lot like a number line!

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

Help you child make a daily schedule. Ask children to tell you the time throughout the day using analog and digital clocks. Focus on telling time to the nearest hour and half hour, begin working to the nearest quarter of an hour. Consider working on counting by 5s. Begin to connect counting by fives to the 5 minute increment on clocks! Begin to use a.m. and p.m. in the daily schedule. Clock Tool.

<u>Working on:</u> In second grade students will tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Invent a product. Price your product so that you are likely to be paid in dollars, quarters, dimes, nickels and pennies. Make connections to counting by five (nickels) and by ten (dimes). Make connections to place value, how many dimes does it take to make a dollar?

Count change any way you can. Collect change in a jar, count all the change in a wallet, or count the change you receive when shopping. Money Tool.

<u>Working on:</u> Reasoning with money and solving word problems using dollars, quarters, dimes, nickels and pennies.

Build background for numbers between 20 and 1,000. Count and sort anything you have. How many paperclips do you have? Can you count them by ones? Is it quicker to make groups of ten or 100? Count pieces of pasta, rice, candies, toothpicks, q-tips, rubber bands, rocks etc. What does 100 of these objects look like? Work toward what a 1,000 of these objects look like? How many groups of 100 does it take to make 1,000?

<u>Working on:</u> In first grade students work with two digit numbers, in second grade students reason with place value to 1,000.

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

Make 10: Find matches of cards that total ten in go-fish or concentration. Make 20: find matches of cards that total twenty in go-fish or concentration.

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.

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Name that Number: Draw one card (Face cards equal 10). 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.

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Count out loud by 1's to 120. How much farther can you go? Have someone choose a number from 20 to 90. Start counting from that number to 120. Play this game counting backward and forward.

Count numbers of objects around the house.

Keep track by 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 smallest to largest. Tell which number is the highest and which is the lowest.

<u>Working on:</u> Recognizing numbers and seeing that they represent many different things.

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. Talk about how a paper towel roll is *like* a cylinder.

Play *I Spy* with your child by asking him or her to guess an object that can be identified by its shape. "I spy something that is round," "I spy something that has a cylinder shape." Make this game more challenging by stating attributes of 2-D shapes such as rectangles, triangles, hexagons (6 sides) by describing the attributes. For example, "I spy a 2-D shape with four equal sides".

<u>Working on:</u> 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 no holes or rim).

Count by 10s to count all of the fingers in your family. Check your answer by counting by 1s. Guess how many toes are in your family and check by counting.

Begin working toward counting by 5s and 10s. For example, 5, 10, 15, 20, 25 etc. to 120.

Start at 0 and make a list of all the numbers to 120. What do you notice? Did you find any patterns?

<u>Working on:</u> Counting numbers. Practice writing numbers to 20. If your child is able to write the numbers to 20 see if they can write the numbers to 120! Identify patterns in our number system.

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.

Pattern Shapes Tool

Geoboard Tool

<u>Working on:</u> Children developing the understanding of words to describe shapes as they construct and build shapes. Have them name each shape and tell about the parts. 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.

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

Nrich tasks (includes problems to solve, games and activities)

