KENTUCKY CENTER FOR MATHEMATICS

Family Focus on Numeracy

A KCM publication for families of preschool and primary grades children

For basics with understanding—play with numbers

In the same way that pleasure reading helps children to become literate, playing with numbers at home helps them to love math and to be more successful in school.

Talk to your child about numbers throughout the day. Look for numerals to read, talk about how many (of whatever) you see, and say number words forward and backward, starting at different numbers. Ask a child to predict how many more (of whatever) are needed.

Play, "*Guess the Number*," in which you hide an appropriate amount of objects, such as pennies, beans, or buttons, (be careful not to let your child see you counting the objects) and give hints for the child to guess the amount. An easy hint might be, "It's one more than 8." A more challenging hint would be, "It's one-fourth of 36." When the child makes the guess, let him/her check the answer. You could think of a number if you don't have objects available.

Play, "*I Have Some/You Have Some*." Give the child some counters, such as beans, cereal pieces, toys, etc. (approximately 4 to 6 pieces to start) and take a few (1 to 3 or so) in your hand. Ask the child how many s/he has and then show how many you have (but conceal while the child thinks). Ask the child how many there are altogether. Use larger numbers as your child is ready.

Play board games, such as "*Chutes and Ladders*," which give children practice in moving a marker a certain number of times.

Play, "*Making Groups*," in which you roll 2 number cubes with one cube representing the number of groups and the other cube representing the number in each group. Ask your child to predict how many (of whatever) they will have once all collections have been built. Have your child write the multiplication sentence that matches. Another variation would be to pick numeral cards to tell the amounts instead of number cubes. You may play also play this game with addition.

Play, "*Sticks and Bundles*," by choosing a 2-digit numeral card (which you can write on index cards) and having your child build using single popsicle sticks and/or bundles of ten popsicle sticks. Find all different ways to make each numeral selected.

Ask your child to show different ways to make a number on his/her fingers. Show your child a number on your fingers and ask him/her to tell you how many. Put up some fingers and ask your child to tell how many more are needed to make a certain number.

Keep the tone positive and follow your child's lead to set the level of difficulty as you play with numbers together.

Online Family Resources for Math:

- *Helping Your Child Learn Mathematics* – for families of preschool-5th grade children. Published by the US Department of Education: http://www.nctm.org/resources/content.aspx?id=7928
- Family resources from the National Council of Teachers of Mathematics: http://www.nctm.org/resources/content.aspx?id=7928
- Online early numeracy games by James Barrett, including topics to for order, time, counting beyond ten, comparing addition, subtraction, place value, multiplication, division, doubles, and more: http://www.ictgames.com/resources.html
- Online number games from the National Council of Teachers of Mathematics Illuminations:

  Concentration, http://illuminations.nctm.org/ActivityDetail.aspx?ID=73

  Five Frame, http://illuminations.nctm.org/ActivityDetail.aspx?ID=74

  Ten Frame, http://illuminations.nctm.org/ActivityDetail.aspx?ID=75

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