ULTIMATE HOMESCHOOL EXPO

Seminar: Joymarie Dunlap
Hands-On Early Math Activities

Audience Handout

Seminar Purpose - Threefold

Early math concepts with activities:

1. To help you teach them in a fun way
2. To give you the best order to teach them in
3. To help you teach clearly, without confusion

TEACH COUNTING THROUGH REPETITION GAMES

Since different kids have different timetables, I key the math activities to the stage of development each one goes with.

COUNTING DITTIES TO SAY WITH TODDLERS

At this point, you are not counting objects, you are just repeating a little counting chant, or ditty with your preschooler.

ONE-TO-ONE CORRESPONDENCE

One-to-one correspondence is just matching one object with another, such as setting each of several stuffed animals next to a toy dish, making sure that each animal has his own dish.

PEGS AND PEGBOARDS

Numbered pegboards with large chunky pegs get kids started counting and visualizing numbers.

MAKING COMPARISONS WITH PRESCHOOLERS

EMPTY/FULL

BIGGER/SMALLER

LONGER/SHORTER

COMPARING SHAPES, such as circles and squares

MORE/LESS

EARLY COUNTING WITH PRESCHOOLERS

COUNT ON FINGERS

COUNTING IN REAL LIFE
Look for any and every opportunity to count with your child in the midst of real life

PLAY STORE
As soon as your child can count to 3, you can start playing store. As the child learns to count farther, raise the prices on the toys.

JUMPING ANIMALS AND NUMBER LINES
Set a ruler on the table, and make your child's toy animal jump from zero to various numbers on the ruler

MEASURING
Use a ruler to measure things in inches; use weighing scales to teach weight; measure kids heights on a doorpost; draw the real sizes of big sea mammals in the dirt with a stick, or on the sidewalk in sidewalk chalk

If you don't have time to do the research for this, I have already done it for you in the Sea Mammals issue (#4) of ***Artistic Nature Magazine***. In fact, I've covered sea mammals in 3 different issues of ***Artistic Nature Magazine***. For a lower price, you can order our Whale of a Deal Bundle of all 3 issues that cover a wide range of sea mammals.

ON TO ADDITION

The most fun way to introduce addition and subtraction are through acting out little stories with toys.

APPLE TREE ADDITION AND SUBTRACTION
Use red-and-yellow "dot" stickers on "trees" for addition.

DOMINOES
Dominoes are inexpensive, and make super adding manipulatives to give your child a strong mental picture of each number.

CUISENAIRE RODS
Cuisenaire rods have a different length and color to represent each number from 1 to 10. Each one is one centimeter bigger than the number before it. There are lots of things that you can do with Cuisenaire rods, including all operations: addition, subtraction, multiplication and division

The colors really make the facts stick in your mind. When you say, "Math time's over," they'll say, "Aw, do I hafta put the rods

away?" Incidentally, that's how kids feel about our penmanship, according to the many home school parents who have reviewed them. They ask for them first thing in the morning! And then beg to do another page.

PLACE VALUE AND BORROWING

POP BEADS

We popped together strings of 10 beads all in one color, and I - showed how to represent ones, tens, and we strung ten 10 bead strings together to make hundreds. Lakeshore Learning Company has little sets of magnetic math manipulatives that are quite cheap, including a magnetic place value set that has one-centimeter cubes, ten-centimeter rods, and hundred-centimeter squares that you can use to show place value.

The important thing with place value is to make sure your child understands that borrowing doesn't change the amount that the top or bottom number represents.

Have your child count out ten pennies and exchange them for a dime while playing store Then have her exchange ten dimes for a dollar.

MULTIPLICATION AND DIVISION

WITH CUISENAIRE RODS

The child lines up the blue "9" rods and counts how many it takes to reach 54 centimeters on the rod track.

WITH PEGBOARDS

Stack the pegs, with the same number of pegs stacked above every hole on the board. Then count them all, giving the number of holes times the number of pegs in each stack. You can also use stacks of pegs on pegboards to demonstrate and practice division.

WITH FRIDGE MAGNETS
Make arrays of magnets on the refrigerator. So, for instance, make 4 rows made up of 6 magnets each, have your child count them all, and say, "4X6=24."

COOKIE JAR DIVISION
Say you have 7 people in your family, and you have 21 cookies in the cookie jar. Now have your child share out the cookies evenly on 7 plates. Have your child state the division fact she has just demonstrated: 21 divided by 7 equals 3.

TEACHING THE MULTIPLICATION TABLES THROUGH SKIP COUNTING
I have found in my experience that starting with the 2X table, and going straight through to the 12X table is not wise or helpful. What I did with my kids was to start them very early, in preschool, with 0X, 1X, 10X and 11X tables because these are so easy to learn

In kindergarten through first grade, I taught my children the 2X, 3X, and 5X tables through skip counting. Skip counting is the fastest and easiest way to learn these 3 sets of times tables.

To introduce the 4X table: have your child write the 2's numbers, skip counting. And then have him circle the 4, and then circle every second 2's number.

Then have her write out the 3's numbers and circle every second 3's number, starting with 6.

At this point, she will know her 0's, 1's, 2's, 3's, 4's, 5's, 6's, 10's, and 11's. That's 7 times tables, which is pretty good for 2nd grade. So, with this method, all your child has left to learn is his 7's, 8's, 9's and 12's. So let's tackle those right now. the 9's are super fun! If you write the nines in a column, going downward, it goes like

this: 09, 18, 27, 36, 45, 54, 63, 72, and 81. Starting with 09, the first digit goes up each time, while the second digit goes down one each time.
So now, all you have left to teach are the 7's, 8's, and 12's. With the 8's, have your child write down the 4's, skip counting, and then circle every second 4's number, starting with 8.

For the 12 times table, have your child write out the 6's, and circle every second 6 number, starting with 12.

So that leaves only the 7 times tables! 7 is God's special number in the Bible, so you can use that to bolster your kids interest in the 7 times tables.

What to do about times tables that just won't stick in your child's mind? Write across the top of the page the answers to the specific times tables the child is having trouble with, and then give him the times sums that go with those answers. So all he has to do is look up each answer at the top of the page.

At the reinforcement stage, it's good to have the answers available for the child to look up. Because each time he looks up the answers, he's reinforcing them in his mind.

Make sure he has to look away from the problem to find the answer, and that he has to write each answer down, because writing is an important part of reinforcement. Or you can just have him write out the times tables he missed, if you are more comfortable with doing it that way.

CONCLUSION

You should now be equipped with plenty of ideas, and a good understanding of not only how to teach math in the early grades, but also how to make it fun for your children!

Incidentally, I am in the midst of creating several preschool math books, in color, with black and white worksheets for you to print

out for your child. When you buy the book, you can download it immediately, so you don't even have to wait a single day to get it.

The first book is already available for sale. It's called ***Beach Math for Preschoolers***, and I use dolphins, colorful fish, and seashells for counting. It's 100 pages long, which you can reuse indefinitely for every child in your household, for only $8.50. (All our reusable, downloadable books are $8.50.)

I am nearly finished with a similar book, titled ***Backyard Math***, with dogs, cats, butterflies, birds, and insects to count, and it too will be 100 pages long for $8.50.

If you go to our LightHome Publications page on Facebook and "Like" us, you can keep up-to-date on this: we will announce when each book is available for sale. And you can then be notified whenever we have our $2 to $3 dollars off sales. (The preschool books are SO FUN to make. I love doing them! And people always find my books very visually appealing and delightful for kids.)

Incidentally, Lakeshore Learning Company, which does not compensate me in any way for mentioning them, carries scores of math manipulatives that are based on my ideas. They had a contest for educational product ideas, each year for 8 years, and I sent them hundreds of my own original ideas that make learning fast and fun, and promote instant recognition of math facts. I won the contest for 7 years in a row, and possibly as many as a hundred of their products were my ideas.

So if you are looking for other math activities to enable you to teach the way I teach, you will find a lot of materials that fit my way of teaching on their web site. www.LakeshoreLearning.com.