

# FAMILY MATH FUN

## Introductory Packet

### Pre-Kindergarten



# Supporting Your Child in Mathematics



Children develop positive feelings about mathematics when they have fun experiences "doing math things" with their family members. Here are some ideas to help you support your child's mathematical learning.

## **Have a positive attitude about the mathematical abilities your child already has.**

Parents are impressed and proud when their children recognize letters and write their names. Your child's developing math abilities (recognizing numbers, counting and representing quantities with pictures or numbers, identifying shapes, learning days of the week, and so on) deserve just as much admiration and praise as their developing literacy skills.

## **Think aloud when you use math.**

Notice the times you use math each day, and share your thinking aloud with your child. For example, let your child know how you decide which coins to give a cashier. (*I need to keep my quarters, so I'm going to give her two dimes and a nickel.*) Share the calculations you do during activities. (*Last week I ran a mile in 11 minutes, and this week it took me only 9 minutes, so I'm 2 minutes faster!*) You'll be surprised at how interested your child is in math.

## **Play games.**

Children learn best through play. In addition to the math games your child's teacher sends home, teach your child the traditional games you played as a child. Many of them use counting or mathematical thinking, such as hopscotch, hide-and-seek, go fish, and checkers.

## **Use numbers in practical ways.**

Numbers can be used to solve problems and to get things done. When two children have a disagreement, write down a number between one and ten and have the children try to guess the number. The child who makes the closest guess "wins." When you are grocery shopping, give your child simple directions involving numbers: (*Put five apples in the cart. Find Aisle 7. Choose enough oranges for our whole family.*) You can also use numbers to keep track of things. (*Your library books are due in two weeks. Let's mark that date on the calendar.*) Whenever you can, let your child help with tasks that involve numbers.

## **Give hints, not answers.**

Always give your child a chance to think through a problem rather than receive an answer he or she might not understand. Everyone likes to be able to "get it" or solve a problem on his or her own. The more your child is able to do this, the more confident he or she will become.

# Commercial Games That Use Mathematics



Many games you have at home or see at the local store involve mathematical thinking. Children develop their skills in an almost effortless way when they play these games with each other and adults.

## **Counting, Adding, and Subtracting**

Candy Land®  
Chutes and Ladders®  
Hi Ho! Cherry-O®  
hopscotch  
The Cat and the Fiddle™  
Cootie®

## **Attributes, Patterns, and Geometry**

Barrel of Monkeys®  
bingo  
mazes  
puzzles  
Go Fish (traditional or commercial)  
Old Maid  
Crazy Eights (traditional or commercial)  
tangrams  
rummy

## **Strategy and Spatial Perception**

The a-MAZE-ing Labyrinth®  
checkers  
Clue® Jr.  
Connect Four'  
mancala (traditional or commercial)  
memory (many names exist for this game of matching face-down pictures)  
Pretty Pretty Princess®  
tic-tac-toe  
Don't Spill the Beans®  
Ants in the Pants®

**More excellent games can be found on the Internet by searching under "educational math games."**

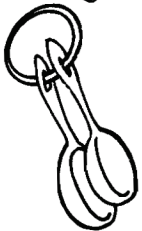
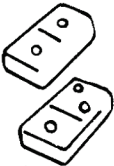
# Everyday Materials for Mathematics at Home



Children enjoy repeating school math activities at home and often explore these ideas further in the comfort of the family environment. In addition, your child's teacher may send home suggestions for activities that you and your child can do together. Here is a list of materials, many of which you probably have already, that lend themselves to math exploration at home. Some families collect small items in plastic bags and place them in a "Math Materials" box or shopping bag.

## For counting and exploring numbers

- pennies, buttons, and beads
- beans, pasta (macaroni, rigatoni), and peanuts in the shell
- popsicle sticks
- dominoes and game chips
- small plastic figures such as dinosaurs and rocks
- muffin tins and egg cartons (to count into)



## For measuring

- measuring cups and spoons
- small and large milk cartons, plastic bottles
- materials to scoop and measure, such as sand, rice, tiny noodles, dry beans
- tape measure, ruler
- kitchen or bathroom scales
- egg timer or wind-up timer

## For exploring shapes

- containers and boxes of various shapes (shoe boxes, cereal boxes, oatmeal containers, paper and plastic cups)
- blocks

## For sorting

*Collections of different sizes, colors, shapes, thicknesses, and so on:*

- buttons
- coins (including foreign coins)
- old keys
- shells, seeds, and rocks
- blocks
- hardware (screws, nuts, and bolts)
- stamps
- small toys (cars, doll accessories)



## For finding patterns

*Scraps of:*

- fabric
- wallpaper
- wrapping paper
- decorative trim for sewing



## Other items to have at home

- a growth chart
- a chalkboard and chalk
- a small white board with erasable pen
- a deck of playing cards
- a clock your child can set with help