During your child’s preschool years, he or she is busy building skills that will help later in school. In the area of math, your child gains strong early foundations from hands-on, everyday experiences with shapes, sizes, measurement, time, matching, sorting, and classifying.

Because children learn best when they use all of their senses, paper and pencil activities have little value. Learning has more meaning for your child when it is natural — a regular, enjoyable part of everyday life. You can do the following pre-math activities at home on a typical day with your preschooler.

**In The Kitchen**

The kitchen is an area with many possibilities for math play. Invite your child to help you use measuring cups and spoons to measure ingredients. Help him or her sort silverware or cups and plates by size. Together, cut soft vegetables into “small” and “large” pieces and “in half.” Set the table, matching one napkin to one plate, one spoon to one napkin, one plate for every chair, etc.

Watch the clock together. Set the timer and as you wait for the bell, you might say, “Wow, our muffins take a very short time to cook. A potato takes much longer.”

When you unpack groceries, encourage your child to sort all the fruit into the fruit bin or all the cereals onto one shelf. Pile pots and lids by size or match them. Talk about shapes as you move around the kitchen: “We sure have used a lot of circles today — the saucepan, its lid, and the apple before we cut it. Let’s find more!”

**Doing The Laundry**

Invite your child to sort clothes by color and then compare the piles. “There are more white clothes than dark clothes.” You might also help him or her match socks into pairs and separate clean clothes into piles for each family member. Compare sizes of clothes: “Michel’s socks are small, but babies’ socks are even smaller. Grandpa’s socks are very big.” Do the same with underwear, shirts, pants, and even sheets and blankets. Invite your child to help you line up the items next to one another, and say, “Tell me about the size of these things.” Then work together to put clothing in size order. You can also line up soap boxes by size and measure soap into a cup together.
When you put laundry away, your child can sort and classify some more. “Let’s put all of Nathan’s socks in the top drawer, his shirts in the next drawer, and his pajamas in the bottom drawer.”

**Taking A Ride**

Whether you ride in a car, bus, or train, there are always plenty of opportunities for fun mathematical thinking games. Look for and match shapes inside and outside. Four and five year olds might enjoy timing short trips, so bring a digital watch along, if possible. Let your child hold it and watch the numbers change as time goes by. When you arrive at your destination, say, “Look, Sidney, our trip to the bank took five minutes. Yesterday it took us six minutes to get to the store.”

**Toys That Promote Mathematical Discovery**

Children feel a sense of satisfaction when they perform tasks that are appropriate to their age and developmental level. The following toys meet and challenge these levels without boring or frustrating children.

- Two to three year olds enjoy stacking toys; large, soft blocks; a few simple-shaped balls; colorful wooden one-piece puzzles with knobs on each piece; and “busy boxes” and nesting boxes (with four to six boxes).

- Three to four year olds are challenged by bristle blocks that hold together easily; wooden and rubber puzzles with three to five pieces; measuring cups and spoons to use in water or sand play; lotto games with large, simple, familiar pictures; sewing cards; large interlocking plastic blocks; large stringing beads; and pegboards and pegs.

- Four to five year olds like more complex puzzles; Cuisenaire rods; small interlocking plastic blocks; collections to sort and classify; a digital watch or clock; and challenging shape, color, and number cooperative games such as dominoes.

**Music & Movement**

“The eensie, weensie spider crawled up the water spout. Down came the rain and washed the spider out. ...” Recognize the tune? You probably know the accompanying hand movements, too. As the parent of a preschool-aged child, you may have noticed that childhood and music seem to be permanently intertwined. But did you know that as your child sings his or her favorite song or spontaneously moves to a beat, he or she is experimenting with, exploring, and practicing important developmental skills?

As your child sings and moves, he or she gets physical as well as creative exercise, begins to experiment with body movement, and feels the joy and exhilaration of freedom and growing control. When your child moves or dances with others, comfortable sensations associated with belonging to and working in harmony with someone else are experienced. As your child sings, new vocabulary and pronunciation skills are practiced. As your child claps, taps, snaps, and moves to finger plays, small-muscle control is practiced. As your child begins to distinguish among rhythms, tones, and sounds in the environment, he or she exercises auditory discrimination skills — an essential prerequisite to reading.

Have fun as you use these activities and others to enjoy music and movement together.

**Wiggle While You Work!**

We all feel and react to different music in different ways. When enjoying music with your child, begin with your tastes, naturally drawing your child into your musical movement world. Put aside your inhibitions, switch on the radio, and dance around the kitchen together! Move rhythmically to the sound of the vacuum cleaner! The more comfortable you feel, the more likely your child will want to join in the fun.

**Know Your Child’s Musical World**

Ask your child’s teacher to write out the words to favorite tunes that the group often sings in school. Also, listen to your child. If you hear him or her sing a few lines of a tune that you are familiar with, you might join in — helping your child learn a little more of the song, practice the
words, or just feel good that you are sharing an important part of life. Invite your child to teach you hand movements and other activities that accompany the songs he or she is learning in school.

**Listen To The Rhythm**
As you and your child go through your daily tasks and routines, take some quiet moments to notice the rhythms around you — the *tap, tap, slide* of slippers on a tile floor; the quick *kerplunks* of rain on the roof; the gentle *thump, thump* of sport shoes in a clothes dryer. Also notice the sounds that seem to attract your child’s attention. Listen together, focusing on the soothing effect. Other times, try to re-create rhythms using your hands or feet, or make the sounds with your mouths.

**Feel Body Beats**
Try playing this game as you look through a picture book together, wait your turn at the doctor’s office, or put your child to sleep: Put your hand on your child’s wrist or neck pulse and explain that you can feel yours. See if you can tap your foot or nod your head to the beat. Get a few body parts moving to the pulse, too. Next, try this same process for discovering your heartbeats and breathing rhythms.

**Use Impromptu Instruments**
Anything you can bang, ring, strum, or shake is a potential instrument. Together, choose a couple of discarded boxes, baskets, or bags, and use colorful crayons or markers to decorate them. Then search, indoors and out, for items that make interesting noises — a pencil and a block, a rock and a piece of sandpaper, or a few large beads in a capped plastic container. Put them in your specially decorated music makers. When the two of you feel like being noisy, bring them out and raise a ruckus!

**I’m A Little Leprechaun**
(Sung to “I’m a Little Teapot”)

I’m a little leprechaun  
Dressed in green,  
The tiniest man  
That you have ever seen.  
If you ever catch me, so it’s told,  
I’ll give you my pot of gold.

**Wee Little Patrick**
(Sung to the tune of “Yankee Doodle”)

Patrick is a leprechaun  
He has a sack of gold  
He hides it in a special place  
Between two stumps, I’m told.  
I think I once saw Patrick  
Out in the woods at play  
He smiled and laughed and winked his eye  
And then he ran away.  
Don’t try to follow Patrick  
To find his treasure sack  
He’ll twist and jump and run away  
And he never will come back.

**St. Paddy’s Day Little Man Puppet**
Cut a large shamrock out — have the child paste it on a large art stick or popsicle stick and then add the arms (*with attached little shamrocks for hands*) and legs (*again with little shamrocks for feet*).
**Shamrock Puzzles**
Cut out a large shamrock and let the child paste, paint, crayon all over it. Depending on the age of the child, later cut it into several pieces and let them put the puzzle together!

**Leprechaun Pudding**
1 one-ounce box of sugar free instant pistachio pudding for every five children
½ cup of milk per child
1 small, re-sealable plastic bag per child
½ cup measuring cup
1 spoon per child

Put 1 tablespoon of pudding mix and milk in sandwich bag. Then close the baggy and have kids shake and squeeze, then eat.

**A REMINDER...**
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For more parenting information or if your group/organization would like to schedule a program, please contact the Denton County Extension Office.

Kimberly Vanderbeek  
County Extension Agent  
Family & Consumer Sciences

**YOU MAY CONTACT US...**
Denton County Government Center  
306 N. Loop 288, Suite 222  
Denton, TX   76201-4818  
940-565-5537 OR 972-434-2052  
k-vanderbeek@tamu.edu

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This newsletter was compiled March 2000 by Kimberly Vanderbeek, CEA-FCS and Mary Campbell, Design Editor & FCS Assistant with information from the following sources:

**Learning Through Play — Everyday Math, Music and Movement, Pre-K Today-Parent Communication Tips,**  
Scholastic Inc., Early Childhood Division, New York, New York, Copyright 1992

**St. Paddy’s Day Little Man Puppet, Shamrock Puzzles,**  
**I’m A Little Leprechaun, Wee Little Patrick, and Leprechaun Pudding,**  
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