
Letter to Families about Mathematics

Dear Families,

Have you noticed how often your child uses math? One of the first words many children learn to communicate is “more.” When sharing materials, does your child notice when somebody else has “more” or when one of his or her toys is taken away? Perhaps your child enjoys stacking blocks to make a tall tower, notices patterns in stories and can predict what will come next, or comments on how big your hand is next to his or her hand. These are just a few ways that children demonstrate their fascination with mathematics.

Research shows that to prepare children for academic success in elementary school, preschool mathematics should emphasize numbers and operations, geometry, measurement, and patterns.

What You Can Do at Home

Help your child practice numbers and operations by counting everything! Support his or her understanding of one object per number by touching each item as you say the corresponding number. Here are some other strategies for supporting numbers and operations:

- Include counting books in your daily reading with your child. Together, count the pictured objects to see if they match the written number (numeral) on the page. As you read, hide some of the pictured objects with your hand and ask your child to decide how many objects are hidden.
- Ask your child to help set the table for a meal by putting a napkin or a plate for each place, or ask him or her how many more cups, forks, etc. he or she will need for everyone to have enough.
- Ask your child to use his or her fingers to make 5 (for example, 2 fingers on one hand, 3 fingers on the other hand). You can also ask your child to talk about the number 10 in a similar way (for example, 3 fingers with rings and 7 fingers without rings, or 2 thumbs and 8 other fingers).

Provide your child with engaging geometry experiences by encouraging your child to work puzzles. As he or she works, use mathematical words like *turn*, *slide* or *flip* to help him or her decide where to place the pieces. Create your own puzzle by cutting a sheet of paper or a colorful wall calendar page into pieces for your child to reconstruct. Consider these additional ideas on supporting geometry at home:

- Encourage your child to build towers with blocks, empty cardboard boxes, or plastic containers. Talk about which objects work best for stacking and which do not.
- Use geometric language to describe common objects. For example, you could say, “A cylinder is like a can. A sphere is like a ball, and a square is like the side of this box.”

There are so many ways to talk about measurement and patterns with your child! Demonstrate measurement vocabulary by saying things like, “It should take about 20 minutes to get to the store”; “I need three cups of flour for the tortillas.” Talk aloud as you estimate and measure. Help your child notice, create, and extend patterns. Here are some strategies for exploring patterns at home:

- Look for patterns everywhere! Notice repeating patterns in clothing, floor, or wall tiles; repeated words or phrases in books and songs; and even patterns in daily routines!
- Invite your child to follow a movement pattern, like “hop, hop, spin.” Challenge your child to extend the pattern or create his or her own pattern.
- Encourage your child to extend and create patterns with blocks, toys, or colors in his or her artwork. Ask him or her to explain their pattern.
- Read books that include patterns and are about change. Create a book with baby photos showing how much your child has grown.

When your child explores and plays freely, you are encouraging him or her to expand his or her thinking. When you follow your child’s interests, you are showing that you value his or her ideas and want to be a part of the exploration. Asking “I wonder” questions about your child’s mathematical discoveries, for example, “I wonder how many potatoes are in the refrigerator,” supports his or her language development and makes your child more aware of what he or she is doing and encourages him or her to try new ideas.