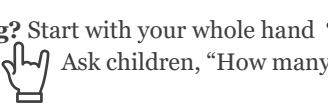




MESSAGE IN A BACKPACK™

Fun, Easy Ways to Play with Math at Home

Jessica Mercer Young and Kristen E. Reed

- 1. Sing songs and chant!** Many songs, chants, and verses have patterns. Learning a song's pattern helps children remember the song. Patterns *repeat in a predictable way that helps children know what comes next*. Songs and chants, like "Five Green and Speckled Frogs," "Five Little Monkeys," "Hokey Pokey," and "Ten Little Fingers," teach number order—children count up or down from a number. They also teach spatial words, like *on, in, out, and around*.
- 2. Read picture books.** Visit your local library and check out great picture books about counting, numbers, patterns, measurement, shapes, and engineering. For ideas, take a look at the book lists at ym.edc.org/math-books/published-books and earlymath.erikson.edu/series/book-ideas.
- 3. Use your fingers.** When children count on their fingers, they are strengthening their number knowledge and their ability to visualize numbers in their minds. You and your child can play these two games with fingers, toys, and other objects—or even people!
 - › **How Many Do You See?** Have your child count your fingers and see how many different ways you can "show 5" on two hands. Then, you can show numbers up to 10. Eventually, add your child's hands and go up to 20.
 - › **How Many Are Hiding?** Start with your whole hand and "hide" some fingers.  Ask children, "How many fingers are hiding?"
- 4. Do puzzles.** Playing with puzzles helps children to think about spatial relationships, identify shapes, look for patterns, and find solutions. Start with easy jigsaw puzzles and add more challenging ones when your child is ready. You can even make your own puzzles by drawing a picture and cutting it into two, three, four, or more pieces!
- 5. Build together.** Building with materials like blocks, cardboard boxes, Legos, K'nex, Magna-Tiles, or Lincoln Logs helps children develop strong spatial skills.
- 6. Try origami.** The creations children make by folding paper help them develop strong spatial skills as well as logical and sequential thinking. In addition to being art, origami can be found in packaging all around us—pizza boxes, paper bags, envelopes, and take-out containers. Folding (and unfolding) paper helps children think in two and three dimensions and see how the sequence of steps affects the final design.