

Why Early Math?

Children are natural mathematicians! Long before they enter kindergarten, they are engaging with the world in mathematical ways, from comparing and sorting objects, to noticing patterns, or dividing a treat fairly among friends. Even before children can count, they notice which pile of cookies has more and which has less. They notice who has built the tallest tower or jumped the farthest. Math helps children make sense of the world around them. Research shows that early math skills strongly predict later academic success. And the best way to build this early math knowledge is for young children to have lots of opportunities to talk about math and play with math—especially with parents, grandparents, siblings, caregivers, teachers, and other children. By joining in with children’s play and explorations, adults can give children the tools they need to build their math knowledge.



Why Family Math?

Many people would say that they learned math in school. But what about at home? We often don’t recognize how many opportunities children have to explore and play with math at home. While families are sorting laundry, putting away toys, setting the table, and cooking a meal, there are lots of opportunities to talk about math. When adults take a “math lens” approach to the world, it helps children see math as something that is interactive, engaging, and valued in their family. Exploring and playing with math at home helps children develop their thinking skills and sets them on a course for having positive math experiences throughout their life. The Young Mathematicians program supports families to engage in playful math at home.



Families get to learn more about what is happening at school, and teachers get to learn more about what's happening at home. By learning from each other, families and teachers strengthen their communication and the home-school connection.

Why Math Games?

Many people believe that you must use worksheets to teach children math or think that if you're having fun while learning math that you're not really learning math. But this isn't true! The kits in this series provide teachers and parents with games that are fun, spark conversations about math, and provide rich learning opportunities. Supporting young children to become strong mathematicians requires thinking not only about the development of mathematical ideas but also about the social and emotional aspects of learning. We use games because they provide a context for learning that is fun yet challenging, which can encourage motivation as well as children's ability to persist at challenging tasks. Games also allow grown-ups and children to play together with mathematical ideas, which encourages more math talk in families.

Here are just a few of the reasons that math games are a great way for young children to learn math at school and at home.

Preschoolers love games. Children learn through play, and they often will engage with games much more eagerly than with direct instruction. While enjoying playing games, children can learn to count, identify and talk about patterns, and develop their number sense and spatial skills, all while helping to build positive attitudes toward math.





Games promote persistence. When kids are having fun, they are more likely to stick with a challenging problem. Working through a challenge is what makes games enjoyable—it’s not as much fun to play something that’s too easy.

Games support social-emotional learning. Playing games with a friend, or in a small group, fosters important social and emotional skills like being patient, taking turns, and solving problems collaboratively. Games with an element of competition also give children an opportunity to practice winning and losing graciously and with respect.

Games can be played at home and at school. Children can play the same games in the classroom and at home, which helps to build a home-school connection. Children can teach their families the games they are playing at school. Teachers can learn from children and families about how they play the games and use math at home. By learning from each other, families and teachers strengthen their communication and home-school connections.

Many families know, “read to your child 20 minutes a night,” but they may not know the best ways to support their child’s early math skills.



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