

At home with math

A word to parents

This math kit contains activities and games to help you make math a natural part of your family's everyday work and play. The kit contains two books, one for everyday math activities and one for math games.

Everyday math activities

As parents, we use math all the time—as we shop, figure out how much time to allot for errands, and schedule time for cooking, eating, and cleaning. Often, our children are with us during these tasks. Perhaps they are even helping out. Why not involve them in the math?

The ten everyday math activities in this kit build math into the things most families already do—ordinary routines such as figuring out ways to save money, to share fairly, or to get somewhere on time. With these activities, children practice adding, subtracting, multiplying, dividing, and using other important math skills while doing tasks that are a regular part of life.

As you look through the activities, think about which ones you'd like to try with your children. Choose those that fit best with the way you manage your household and family routines. Think also about what your children like to do. If they hate cleaning their rooms, you might put off the activity that involves room cleaning. Then again, if you need that room cleaned up fast, this might be an excellent place to start!

Each activity is suitable for children of various ages. Parents often need to deal with two or more children at once, and these versatile math activities can be adjusted to challenge older children as well as meet the needs of younger ones. The variations at the end of each activity suggest ways you might adapt the ideas to fit your family. Once you start, you'll find yourself making your own adjustments automatically.

Math games

When the household chores are done and there's time to play, these games offer another natural opportunity for math. Your children will be doing math when they add the rolls on their dice, when they figure out their chances of getting a winning roll, and when they come up with strategies for improving their play.

The beginning of the math games book lists some quick ways to explore the math in polydice. The games themselves give children lots of practice counting and doing calculations. There's also the opportunity to do mental computation, giving your children practice in thinking on their feet. Most of the games include an element of luck, but also involve some strategy. Tips for each game tell you how to help your children look for the best strategies.

By using the variations for a game, you can adjust the level of mathematical challenge for your own children. Some families will welcome the variations that encourage cooperation and reduce competition among children.

Like most good games, these are meant to be played over and over. Once you have taught your children a game, they may want to play with each other and with their friends. We hope that you will continue to play the games with your children, too. It's a way to have fun with your children while helping them learn important math skills. Also, you'll have a chance to see their mathematical thinking in action!

Making this kit work for you

Each family's use of these activities and games will differ. As you begin to work them into your life, you will draw upon your own knowledge of your children, relying on familiar techniques for handling family situations. While you experiment to find what works for you, keep in mind the following general principles:

- *Try to find one time each day when you can do a little math with your child—* maybe during chores, while driving in the car or riding the bus, at bed time or bath time, or at the laundromat. The activities take only a few minutes, and you can repeat them on many occasions.
- *Use your judgment in choosing things to do from the books.* Most of the activities and games can be done in any order. Read them through before deciding what you would like to try first.
- *Let your children lead the way.* Honor their interests and their attention spans, and always stop before boredom or frustration set in. The goal is to spark your children's interest in math and keep the flame going.
- *Beyond these activities and games, let your children see and hear you doing math throughout the day.* If you clip coupons, talk about what you are using them for and how much you hope to save. As you look forward to a special event, count aloud the remaining days on the calendar. By giving your children examples of how you use math, you'll be conveying the message that math is important and useful in daily life.

A final word

Children need lots of practice in order to become strong mathematical thinkers. This practice can be as engaging as playing a strategy game or as practical and satisfying as figuring out ways of saving money. The ideas in this kit offer many good starting points. We hope you'll make math a regular part of your life. The more you do, the more your children will grow to enjoy math.