

Most children learn to write numerals and do arithmetic problems in kindergarten and in their first and second grades. For younger children, there are many things that parents and adults can do to help them develop the foundational skills that will build their success for the elementary math program.

The New Mexico Early Learning Outcomes include several school-success building skills related to math. Our goal for each child is that they

- are learning to count;
- are learning about shapes;
- are learning that things can be measured; and
- separate objects by similarities and differences.



The following activities—in each of the four conceptual areas below—can help support your child's development of the skills that will help them understand math concepts and be ready to use that understanding in kindergarten, first grade, and second grade.

What's Similar? What's Different?

Noticing similarities and differences is an important part of determining how to organize and classify things. This is a mathematical concept that becomes important in later schooling. Young children can notice similarities and differences and organize objects by categories in simple ways.

Have your child help you sort the laundry, matching same-colored socks, towels, or washcloths. Ask them to put all of the white items in one pile and the colored items in another. Organize your child's toy shelf so that there are specific places for different items. For example, have an area for books, a part of the shelf for cars, and another section for stuffed animals and dolls.

Take some socks or different-shaped containers and put them in a zippered plastic bag or a box with a lid. Put them out on the kitchen table and suggest to your child that they organize them in some way. Challenge your child to find the ones that are the same color, the same shape, or ones that have certain characteristics. For example, "Can you find the sock that is the biggest? The sock that is the smallest? All the blue socks?"

Count, Count, Count!

Counting objects—fingers, toes, chairs, spoons, socks, shoes—is the way that mathematical understanding develops. You can make a game of counting items in your everyday interactions with your child.

As you count together, touch or point to the item being counted and encourage your child to do the same. If they get mixed up or count incorrectly say, "Let's do it together!" and take their finger or hand in yours to do the counting again.

For younger toddlers, keep the number of items to just a few. Then, as your child becomes more secure in understanding the sequence (1, 2, 3, 4, 5, etc.), you can add more items. Most five-year olds understand, and can count up to, quantities of 20.

Shapes, Shapes Everywhere!

Recognizing shapes in the world is the basis for geometrical thinking. You and your child can play “I Spy” different shapes in clothing, around the house, and on traffic and other signs as you drive down the road. Most preschoolers can learn to identify circles, squares, and triangles. And, if you show them the difference between them, they can distinguish between a square and a rectangle. Go on shape hunts in your house or neighborhood.

Making shapes with materials that you have around the house is easily done as well. Take some yarn or string and cut it into different lengths (anywhere from four to twelve inches). Then, let your child make shapes with the lengths. Or use popsicle sticks or straws and ask them, “What shape can you make with three straws?” “Now, how about with six?”

If your child is feeling rambunctious and has a lot of energy, you can suggest that they make shapes with their body. You can ask questions such as, “What shape can you make with your arms? With your legs? With your mouth? With your hands?” You’ll be helping him or her to learn more about math while getting rid of some of that extra energy!



How Tall? How Long?

Measuring objects and figuring out which is longer, shorter, wider, or heavier is another important experience that helps children lay a mathematical foundation and be prepared for more formal measurement activities in later grades. You can compare the sizes of things every day in your home life. Whose shoes are the longest? The shortest? Who’s taller—mom or dad, brother or sister? Which ball is the heaviest? Which is the lightest? Is a feather lighter than a basketball? Can you feel the difference?

It’s not important for preschoolers to use rulers and tape measures perfectly. But they do love to play with the tools that grown-ups use to measure. You may encourage them to go around the house and find things that are just as long as your ruler or their foot and as heavy as a baseball. These kinds of comparisons will help them think more about the lengths, heights, and weights of objects.

Measuring your child’s height and keeping a record on a long piece of paper hanging somewhere in your house is a wonderful way to use measurement in a way that will fascinate your young child. Then, you can keep track and see how much he or she is growing over time!



References:

PED. (2019). New Mexico Early Learning Guidelines.