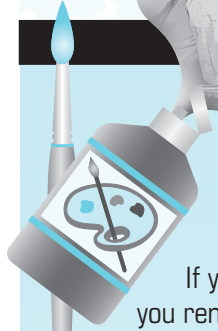


ELEMENTARY

edition

A PUBLICATION FOR ELEMENTARY SCHOOL PARENTS



How is math essential?

Let me count the ways

If you had a dollar for every time your children mumbled and grumbled when you reminded them it was time to do their math homework, you'd be rich, right?

Pespite their complaints, don't give up—researchers are saying math is more important now than ever.

In fact, many professions that once required little background in math now call for specific skills in geometry, measurement, probability, and statistics

For example, an entry-level auto mechanic must be able to apply algebraic formulas and physics to properly wire the electrical circuits of a car, and musicians now compose songs using sophisticated computer software programs.

While it might be hard for young children to understand the role mathematics will play in their future career choices, the elementary years are the perfect time to stress the importance of math.

Using math everyday

Many kids often wonder how the math skills they are being taught in school apply to everyday life. "Ask Dr. Math"—a Web-based mathematics-related question and answer database—helps answer that very question. "Dr. Math" explains that he uses math everyday for his job as a biomedical researcher—and that he wouldn't be able to cook or bake, shop, play cards or video games, or manage his money without math.

"At the elementary level, the key to getting young children off to a solid mathematical background is to help them understand how they use math in their everyday activities," explains an elementary school teacher. "I use math every chance I can. For example, when my students do well on assignments or group projects, they are rewarded with play money to purchase items from a prize box."

Math teachers say activities that involve "play" money are a good way to help young children develop mathematical reasoning and practice their addition and subtraction skills. And, allowing them to "purchase" items they want makes the concepts real for them. (If the colored pencils in the "prize box" cost \$2.35, but I only have \$1.55, how much more do I need?)

Even if you don't consider yourself math-minded, there are plenty of fun activities you can do with your children to help them get a better understanding of how math is used in the world outside of school. Below are a few activities to try with your children.

Kindergarten to first grade

At this level, youngsters might still be mastering the concept of numbers and shapes, as well as: honing their counting skills, learning single number addition and subtraction (i.e., $1+1=2$), exploring the value of coins, and experimenting with measurements (length, width, weight).

- Count the number of steps needed to walk from the front door to the mailbox. Then guess how many steps are needed to get from the mailbox to an object halfway back.
- Make a game out of searching for and naming different shapes in your house or during a car ride. (A television is a square; a yield sign is a triangle, etc.) Or play "I-Spy" using shapes. See how many items of that shape your child can find.
- Make up your own simple math word problems by using everyday items (toys, paperclips, snacks), such as: "If your snack contains 10 crackers, but you give two to the dog, how

many crackers do you have left?"

- Play the money-dice game. Roll some dice and have your child figure out how much money your roll is worth. For example, if you rolled a two and a six, you'd get eight cents. Then help your child figure out what combinations of coins could be used to get that amount of money (eight pennies or a nickel and three pennies).
- Use rulers, yardsticks, and bathroom and kitchen scales to measure and weigh objects around the house (toys, buckets of water, a handful of M&Ms, etc.).

Second to third grade

During the middle of their elementary math education, children begin to explore geometric concepts, such as two-dimensional and complex shapes and symmetry.

- A great way to learn about geometry is through art. Visit museums and art shows where you and your child can name different shapes that make up a piece of art.
- A walk in nature also can yield surprising shapes (ladybugs are round and symmetrical, a tree trunk can be seen both as a two-dimensional rectangle and a column).
- Have children use craft objects, such as toothpicks, pipe cleaners, straws, and twist ties to construct different shapes. Give kids a pile of straws and marshmallows and see what kinds of shapes they can create using the straws as the sides and the marshmallows as the connectors—can they



make a cube? A pyramid?

Fourth to sixth grade

Students delve into statistics, percentages, and fractions at this level. "A good way to show children how statistics are used in the 'real world' is to point out charts in newspapers and magazines, and explain to them what the chart is showing," says a fifth-grade teacher.

- Cooking and baking are great ways to learn about measuring and fractions. Double a cupcake recipe or reduce a large-batch soup recipe, then have your child calculate how much of each ingredient is needed.
- Shopping—especially sale shopping—lends itself to all sorts of math activities. Have your child play the role of "human calculator" and compute the final price of items when discounts and coupons are applied—and don't forget the sales tax.

Even if math is not your children's favorite subject, when they realize that most of their daily activities involve numbers, they just might discover they have a new appreciation for math. To prove your point, have your children "keep score" of the number of times they used math on any given day.

Math Skills: Use It or lose it

Math isn't everyone's favorite subject, but it can be a lot of fun to learn with a good instructor and the right materials. In Schalmont Central School District, elementary teachers use unique programs and creative lesson plans to help students discover the real-world value of math skills.

Math in Grades K – 2

Everyday Mathematics is a research-based curriculum that enhances elementary math instruction. To date, Schalmont kindergarten, first- and second-grade teachers and AIS instructors have all received training in the program. It was selected by a committee of teachers tasked with reviewing the most effective instructional tools and materials.

One unique feature of the program is that students encounter previously studied topics at several points during the school year, thus reinforcing the original lesson. Jefferson Elementary teacher Lori DeMeo said she also enjoys that Everyday Mathematics teaches students to “think outside the box.” During a recent class, her second-grade students used a story about different-sized fish to learn how to tell what objects weigh more and why. As students were challenged to figure out what the new weight would be if fish G swallowed fish k, one boy eagerly yelled out, “Oooh! Here comes the big fish!”

“Numbers represent so many different things,” said DeMeo. “Learning needs to be attached to the real world.”

Teachers send a Home Link newsletter home with students at the start of each new math unit. It gives parents the answers to all math homework problems, and provides an overview of that unit's key concepts. This resource also gives parents an opportunity to help their children see the link between math concepts and the real world.

Fellow second-grade teacher Sarah Scotti said, “If we're studying temperatures in class, you can ask your child to tell you the temperature. Or you can ask your child to tell you the time, preferably on a clock with hands. These are basic life skills that you need to know for everything.”

Math in Grades 3 – 5

Students in the third, fourth and fifth grades also study math every day, but lesson plans are geared towards preparing them for the annual New York State math exams in March. Students must gain certain math skills to achieve state standards. Learning for the sake of a test isn't exactly a fun concept for children, though, so teachers try to make the development of these math skills as exciting as possible.

This December, Woestina Elementary teacher Kimberly Wilson took advantage of the holiday season to teach students addition, subtraction and the value of a dollar. She brought in store flyers filled with ads for toys, electronics and housewares, and invited students to make a wish list. Some students wrote down only two items, while others put closer to 15, but all had to keep track of the individual price of their items and the total cost of their wish list.

Wilson told her fourth-graders, “The more items you have, the more you have to add, which means the more money that you're spending.”

Students were then challenged to see how many of their wish list items could be purchased if they only had \$50 to spend. After having gleefully torn through store advertisements, they settled into a more contemplative mood, trying to prioritize their wants. When one student complained that he wanted two expensive items, a classmate chastised, “Do you want nothing for Christmas, man?!”

In addition to practicing essential addition and subtraction skills, students learned how to prioritize based on their personal finances, make change and use coupons to make their money go farther. Wilson likes to relate class concepts to real life, so she asked her students, “What [money situations] have you helped your parents with?” Their responses – such as helping give money to a waitress or cashier, estimating a tip on a restaurant bill, or making a gas station purchase – show ways in which parents can easily reinforce math concepts at home.

Visit www.schalmont.org to learn more about the unique and creative ways in which Schalmont teachers and parents can improve students' math skills.

mark your Calendar

February

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| 5 Mariaville – PTO Meeting, 6:30 p.m. | 13 Woestina – Morning Program, 9:15 a.m. |
| 6 Jefferson – After-school Program
Woestina – PTO Meeting, 6 p.m. | 13 – 14 Jefferson – 4th & 5th grade Chorus Musical, 7 p.m. |
| 8 Woestina – PAC Meeting, 10 a.m.
– PTO Bingo Night, 7 p.m.
Mariaville – Family Movie Night, 7 p.m. | 14 Mariaville, Woestina – Valentine's Day Parties, 2:15 p.m. |
| 11 Board of Ed. Meeting @ Woestina, 7 p.m. | 18 – 22 NO SCHOOL – Winter Recess |
| | 25 Board of Ed. Meeting @ MS LGI, 7 p.m. |
| | 26 Mariaville – After-school Program, 3:05 p.m. |

Don't forget to sign up to receive the latest elementary school news through Schalmont's School News Notifier at [www.schalmont.org!](http://www.schalmont.org)

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