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Without math, there is no rocket science

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Many parents would be too embarrassed to admit being illiterate, and it is doubtful they would use such as an excuse for their child's failure to do well in school.

On more than one occasion, however, I have had parents say to me: "I never could do math, so my child's difficulty in algebra just comes naturally."

That's usually accompanied by a smile and a chuckle, as if to imply genetics is funny that way. The very person who would never admit to being illiterate has no qualms about admitting to being innumerate.

Reading is Fundamental and other programs have been around for more than a generation combating illiteracy. Researchers have found effective methods for teaching people of all ages the ability of going from a single letter to words and sentences.

Even though we don't have a "math is fundamental" program, I suspect that it is going to take more than the efforts of classroom teachers to convince the general population of the importance of mathematics.

Mathematics needs to be viewed as a second language that uses symbols in place of words to convey meaningful expressions. It needs to be a language that transitions as effortlessly to the science classroom as does the written word from the English classroom to social studies. Like any second language, the earlier someone is exposed to the components of the new language, the easier it is to learn and to become fluent.

As parents and grandparents, many of us make bedtime reading a ritual. We give books as gifts for special occasions and discuss with our children the books they have read. We want children to find the written word enjoyable and to develop a desire for more reading experiences.

It is true that preschool and elementary age children are often given books that teach counting and basic number operations. Perhaps we need to continue giving books that stress numbers as our children get older.

Reading with small children fosters a love for the written word. Could setting aside time to solve number puzzles make learning mathematics more enjoyable? Books are available on Sudoku, Kakuro and Numbrix puzzles of varying degrees of difficulty. Have you ever given one as a gift?

Critical thinking skills are acquired by the process of arriving at an answer, the methods necessary to search and conquer the problem, not by the answer itself.

Children stand in line for the latest installment of the Harry Potter series, and I would venture a guess that nary a one ever uttered the question asked in algebra classes everywhere: "When are we ever going to use this?" If only we could instill that kind of love for the manipulation of numbers!

Frustrated math teachers jokingly say to students who insist they can't learn algebra or geometry that "we aren't teaching rocket science." But, in fact, the teachers know that without a firm foundation in algebra and geometry, there would be no rocket science.

There have been many articles about both the shortage of engineers in our country and the need to encourage more high school students to take advanced classes in math and science.

There have been recent articles about the benefits of International Baccalaureate and Advance Placement programs that prepare students for the careers of the future.

But shouldn't we be fostering a love of numbers long before high school?

Innumeracy, like illiteracy, is not a laughing matter. Great strides have been made in fostering a culture that reads. Perhaps it is time to consider cultivating a deeper understanding of the mathematical process.

It is going to take more than the efforts of classroom teachers to eliminate the need for the Texas Assessment of Knowledge and Skills or for No Child Left Behind standards to make a difference in the way children view mathematics.