

Tips for Parents: Girls in Math and Science

Beware of myths

Many parents think of their daughters as being able to do anything—except math and science. Unfortunately, this not only limits their daughter’s options for the future, it also damages the nation’s ability to compete in these fields.

What about genes? Are boys biologically superior in math and science? Research has shown that there is no such thing as a “male math gene”. Furthermore, the National Research Council found “almost no difference in performance between male and female students who have taken equal advantage of similar opportunities to study mathematics. Many girls are naturally skilled in math and science. Your daughter may be one of them.

Myths that girls need to overcome:

- Careers in math and science are “male professions”.
- Women who choose to pursue math and science are brainy, weird, or not feminine.

Let your daughter know that many professional women are successful and popular.

Encouragement is the key

Parental encouragement and support are key factors in making math and science careers viable options for girls of today. In most schools, there are two key decision-making points:

1. In eighth grade, when most students decide whether to take Algebra I the following year.
2. In eleventh-grade, when most stop taking additional math classes when the basic math requirements have been met.

Parents can get a head start by making math fun at an early age. Some suggestions for encouraging the math habit are:

- Doing puzzles
- Going to science museums
- Taking things apart
- Watching math and science programs on TV

Raise your expectation. Don’t let your daughter think that it’s okay for her to do poorly in (or even skip) math and science courses. Let her know you are confident she can do well in these areas.

Be an advocate. If you think your daughter shows promise and is interested in pursuing advanced math or science courses, insist that she be placed in these classes. Find out what your local school district is doing to encourage girls in math and science.

Building better programs

There is a need to evaluate existing math and science programs. When schools offer math and science programs, this doesn't necessarily mean that these courses are going to be successful in encouraging more girls to consider math and science careers. Research indicates that girls tend to show more interest in math and science when these courses:

- Present more hands-on, problem-solving activities
- Include more teacher explanation and question answering
- Offer small work groups

School math and science programs also need to provide opportunities for young women to talk with scientists and engineers about their work. When students interact with these professionals, they learn more about potential career choices.

For more information:

Web links:

http://www.girlsgotech.org/girlsgotech_booklet.pdf

<http://www.girlstart.org/>

The Gender and Science Digital Library—"Affecting Student Achievement in Science"
http://www2.edc.org/GDI/publications_SR/GSDL_AffectingStudentAchievementinScience.rtf

Freeman, Catherine E. "Trends in Educational Equity of Girls & Women: 2004"
http://nces.ed.gov/programs/quarterly/vol_6/6_4/8_1.asp

Publications:

Matthews, Michael S. "Encouraging Your Child's Science Talent: The Involved Parents' Guide". Prufrock Press, 2006.

For a copy of the National Council for Research on Women's Report: "Balancing the Equation: Where are Women and Girls in Science, Engineering, and Technology?" email sdaly@ncrw.org

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