

# Girls and mathematics

The Australian Association of Mathematics Teachers Inc.









## What are the issues for girls in the 21st century?

Parents and teachers can influence girls' attitudes towards mathematics in a positive fashion by the way they talk about and encourage mathematics and mathematical thinking, from the early years through childhood and adolescence to their adult years. This can be achieved in a variety of ways.

Teachers should strive to make women visible in the context of the material presented and they should also be represented equitably in graphical images. In posters, displays, illustrations and digital media, men and women should be equally represented in relation to the use of mathematics. For example, it is unreasonable that nurses are often depicted as female and that many of the people involved in technical pursuits are male. These positive changes can be achieved without significantly altering our approaches to teaching and learning.

#### **Teachers**

At all times teachers should strive to:

- encourage risk taking and reinforce to all students, not just girls, that it is an important part of learning;
- differentiate the learning experiences for girls and boys in the classroom environment;
- give equal time and access to resources to both girls and boys;
- promote the achievements of women in mathematics throughout the ages;
- apply mathematics to social as well as technical and mechanical contexts;
- assess students using a variety of methods, not just fluency learning;
- teach girls only classes if students are in a co-educational school;
- show that all roles in society are filled by women.
- ensure that the contexts of mathematical concepts cater for the experiences and interests of both girls and boys.

#### Girls

We should try to ensure they:

- become confident in the study of mathematics and know that they can do well in mathematics;
- resist peer pressure to discontinue their study of mathematics;
- reject societal attitudes that girls cannot do mathematics;
- apply for scholarships and other support to study mathematics at universities;
- are aware of the many careers that rely on mathematics;
- are encouraged to have a career in trades that use mathematical skills;
- continue studying mathematics at a higher level.

### Parents and guardians

Parents and Guardians can:

- play games with their daughters from an early age which involve mathematical concepts;
- exhibit a positive attitude towards mathematics and avoid statements such as "I was never good at mathematics";
- encourage their daughters to continue further studies in mathematics;
- have frequent conversations with their daughters about what they are studying in mathematics;
- be in regular contact with their daughter's mathematics teacher;
- · show how mathematics is used in everyday life;
- encourage their daughters to attend mathematical events such as games days, other competitions and mathematical lectures.

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