

You can support your daughter in her mathematics

- Attend school information and parent/teacher sessions so that you can talk with her about what is happening in mathematics.
- Assume she will do well in mathematics.
- Be positive about mathematics. Avoid recounting your own negative experiences.
- Encourage her to continue in her mathematics studies.
- Build up her confidence in her mathematical ability.
- Encourage her to talk about what she is doing in mathematics.
- Discuss how mathematics is used in everyday life, in paid and unpaid work and in leisure activities.
- Discuss with her the many roles women play in our society and the changing view of femininity.

For further information see
A NATIONAL STATEMENT ON GIRLS AND MATHEMATICS,
AAMT, 1990.



Australian
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Mathematics
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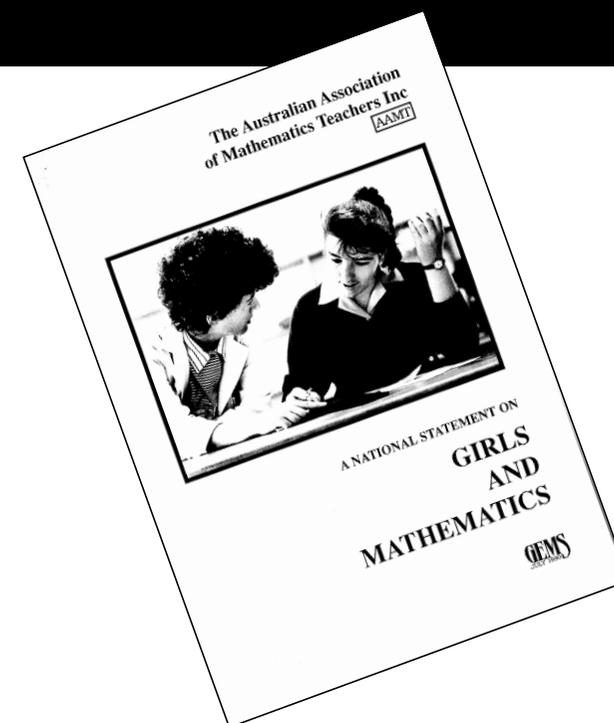
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SCHOOL MATHEMATICS and YOUR DAUGHTER



**Inclusive mathematics classrooms
reflect the lives, interests, beliefs
and values of all students.**

Traditional mathematics classrooms

Narrow interpretations on mathematics have led to its being taught in ways that emphasise memorisation and rule following. For many, mathematics focussed on seeking a single correct method or solution. There tended to be a belief that the mathematically able child was one who responded instantly and recognised an appropriate solution immediately.

Through such approaches, many students have come to believe that the requirements for success in mathematics are passivity, rote learning and rule following. Paradoxically, they also receive the message that real talent in mathematics is about being active, exploratory and rule challenging. These conflicting messages are received by both girls and boys. Because the former behaviours are more often associated with femininity and the latter with masculinity, the effect on girls and boys can be quite different.

For some girls the paradox can create a conflict between what they think is necessary to be feminine and what they think is necessary to be really good at mathematics.

Some consequences

- girls are more likely to attribute their successes to hard work and their failures to lack of ability, while boys are more likely to believe their successes are due to their ability and their failures to lack of effort or other external factors;
- gender differences in mathematics participation and achievement come to be accepted as natural;
- some girls come to believe that it is socially acceptable for them not to be able to do mathematics, that it is appropriate for them to choose not to do mathematics and that there is no need for them to do so;
- some girls opt out of mathematics as soon as it ceases to be compulsory; and
- girls are generally less confident and more anxious about their mathematical

Today's mathematics classrooms are more inclusive of girls and relevant to their needs because —

Teaching methods

- make more extensive use of discussion, small group work and open-ended investigation
- emphasise cooperation rather than competition
- encourage girls to develop skills in risk taking through guessing, estimating, attempting partial solutions and using trial and error methods
- cater for a variety of approaches to learning
- allow students some control over their own learning in the nature and timing of parts of their tasks
- allow for a fair distribution of the nature and amount of teacher attention across the whole class
- where it seems appropriate, bring the issue of gender in classroom interaction into the open, through class discussion.

The mathematics curriculum

- focuses on the development of mathematical thinking rather than rote learning
- presents mathematics as a human endeavour
- includes and values achievements of women and girls
- emphasises the creative and imaginative appeal of mathematics
- develops creative and diverse problem solving skills and strategies for groups and individuals
- includes open-ended investigative problems where there is no single correct method or answer
- encourages and develops verbal and visual communication skills
- ensures that the contexts in which mathematical ideas are introduced and developed are familiar to both girls and boys
- incorporates applications of mathematics to important social issues.