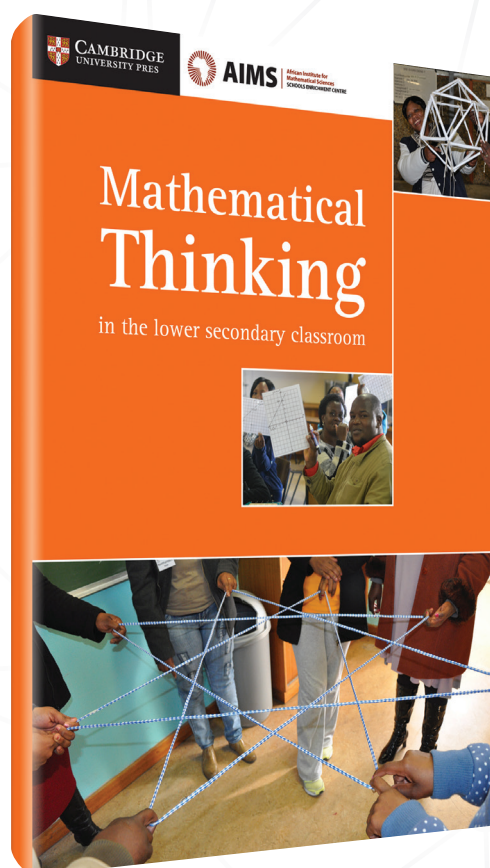




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Written by experienced maths teachers and subject matter experts and trialled by teachers.



Mathematical Thinking in the lower secondary classroom

Edited by Christine Hopkins, Ingrid Mostert and Julia Anghileri

978-1-316-50362-1

"I discovered that mathematics is not only about numbers, it is a language in itself. Expressions and equations are a short way of narrating a story, they are not just numbers and symbols without meaning."

Mammudi Malatji, Lower Secondary Teacher

The first edition of the AIMSSEC series, this book is for teachers and educators who want to develop their maths teaching skills. It has been written by an international group of educators affiliated with AIMSSEC, the African Institute for Mathematical Sciences Schools Enrichment Centre.

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The book has 20 chapters covering topics in number, algebra, geometry and measures, and data handling and probability. Each chapter covers one mathematical concept and addresses one of six teaching strategies. The chapters are divided into three sections:

- Workshop activities for teachers: information needed by a group of teachers for a 'self-help' workshop
- Classroom activities for learners: suggestions for a variety of activities to try in the classroom
- Changes in my classroom practice: practical advice about how to implement the teaching strategy as well as follow up activities

The books in the AIMSSEC series have been written to emphasise the use of cheap, practical resources and communication in the classroom. For example, find out how to:

- Make large 3D models from used A4 paper
- Use string to explore geometrical shapes and transformations
- Make graphs using the children themselves
- Get feedback on basic showboards made by laminating a sheet of paper
- Ask effective questions

This book provides:

- Practical support for mathematics teachers in the lower secondary classroom (ages 11-15) using cheap, practical resources
- Ideas for using technology to teach and learn mathematics – both in the classroom and away from the classroom
- Ideas for introducing mathematical concepts through an active learning approach and drawing on the activities on the NRICH website (www.nrich.maths.org) which has been built up over the last twenty years
- Activities that exemplify ways of teaching important mathematical concepts covered in all national curricula
- Material that is universally relevant, written by an experienced international writing team, all of whom have worked as teacher educators in more than one country

This book will be useful for:

- Setting up regular meetings of teachers for professional development in a district
- Encouraging independence in students training to be teachers, and can be used by:
 - Maths teachers meeting in a school or group of schools
 - Individual teachers

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