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# Mathematics

## Lower Primary Teacher Guide



Department of Education

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### **Acknowledgements**

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Teachers, inspectors, tertiary educators, community members, representatives from non-government organisations and the Mathematics Subject Advisory Committee have developed this Teacher Guide through meetings, workshops and consultations.

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## **Inservice units**

A set of inservice units has been written to support the implementation of the primary reform curriculum. These units should be used in conjunction with the Lower Primary Mathematics Syllabus and this Teacher Guide. For further information contact your head teacher or district inspector.

The inservice units are:

- self-instructional, so you can access them according to your needs
- self-paced, so you can study at your own pace
- outcomes-based, so you can experience outcomes-based approaches to education
- based on adult principles of learning, such as doing, sharing and reflecting
- practical and related to your daily work as a teacher or a supervisor
- collegial, so you can learn together in small groups, whole school or cluster settings
- accredited with the Papua New Guinea Education Institute, so you can improve your qualifications
- designed to promote best practice, so you can effectively implement the curriculum
- applicable across both Lower and Upper Primary syllabuses.

These units integrate principles contained in the National Curriculum Statement (2002) and the National Assessment and Reporting Policy (2003).

## Secretary's message

The Mathematics Syllabus and this Teacher Guide build upon the skills and knowledge that children bring from their own cultural and family experiences and the learning outcomes of the Elementary curriculum. This learning occurs in the child's first language.

A bilingual approach is used in Lower Primary. It incorporates bridging to English processes in Grades 3, 4 and 5. This approach helps students to know who they are by building on their knowledge about their culture and first language.

The students' first language, used in Elementary, will continue to be the language of instruction while bridging to English takes place in Grades 3, 4 and 5. Students will continue to develop their thinking and decision-making skills as well as skills in speaking and listening, reading and writing in the language they speak, while also learning in English.

Lower Primary teachers are generalist teachers and this Teacher Guide is for all teachers in Lower Primary schools. It is one of a set of seven guides written for teachers of Grades 3, 4 and 5.

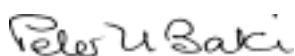
The emphasis in Lower Primary Mathematics is on student-centred learning, with a focus on active participation through investigating and problem-solving activities. Students will use concrete materials to help them solve problems.

Teachers must provide a classroom environment for Mathematics that encourages creativity and enjoyment. When planning, relate Mathematics activities and problems to relevant, real life situations. Teaching mathematical concepts in meaningful contexts and having hands-on experience assists students to understand the concepts.

Teachers are encouraged, where appropriate, to integrate Mathematics skills and content across the whole curriculum.

Teachers are also encouraged to read this guide carefully and then become familiar with the content of each of the other Lower Primary teacher guides. In this way, teachers can feel confident to try out the ideas and strategies that they believe will be effective with their students. Teachers may choose to modify and amend these ideas to suit local circumstances.

Teachers should work closely with members of their school communities, to ensure that local community needs are met within the framework of the learning outcomes published in the Lower Primary syllabuses.



**PETER M. BAKI, CBE**  
Secretary for Education

