

## **Book Review**

### **Mathematical Thinking in the Lower Secondary Classroom.**

**Edited by Christine Hopkins, Ingrid Mostert & Julia Anghileri.**

**Cambridge University Press, 2016.**

**ISBN: 978-1-316-50362-1**

**(spiral bound paperback with photo-copiable resources)**

AIMSSEC's *Mathematical Thinking in the lower secondary classroom* is a powerful and practical support for teachers of mathematics. It provides a refreshingly succinct and engaging guide into the mathematical concepts that are developed in lower secondary classrooms. Based on the best of current learning theory and brain research, this pragmatic guide serves a dual purpose. It provides a series of 2-hour professional learning opportunities for teachers set on a foundation of guided classroom activities.

It is very difficult for teachers to change their teaching strategies, even if they want to. In my professional development experiences, teachers frequently express an openness toward improving their instructional practices. They say such things as, "I'll do it, show me what it looks like." *Mathematical Thinking* does just that, in a teacher-friendly way.

This realistic volume lays out step-by-step, easy to interpret directions for reinforcing mathematical concepts using a minimum of common materials. By starting with a problem or situation that intrigues teachers or students, the lesson motivates them to dig deeper into exploring an area of mathematics. It builds a conceptual understanding that supports problem solving procedures. It creates a curiosity and "need to know." By having teachers and/or students struggle through a relational problem, the book helps them develop their mathematical vocabulary, their procedural fluency and their mathematical reasoning.

*Mathematical Thinking* encapsulates the collective wisdom of math educators, who teach for understanding, in a helpful guide. It is valuable for new teachers trying to learn their craft, for experienced teachers trying to improve their practice through collaboration, and as a starting point for rich, engaging tasks that will inspire and enlighten secondary students.

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