



January 2003

Dear Colleague,

This publication, **Key Idea Tasks to Enhance Success (KITES)**, is the first in a series of modules to be developed under the New York State Mathematics Initiative. This module will be part of a “Toolkit for Mathematics Educators.”

The New York State Mathematics Initiative is a plan designed to improve student achievement in prekindergarten to grade 12 mathematics programs. The initiative will provide curriculum guidance resources and tools that will:

- Elevate the importance of mathematics;
- Enhance professional development for teachers;
- Encourage students, teachers, administrators, parents, higher education professionals, and community members to work together.

The *Key Idea Tasks to Enhance Success* demonstrates how each of the seven key ideas evolves from prekindergarten to the commencement level. New York State teachers created a series of activities centered around a unifying theme to illustrate how a mathematical concept expands from one grade to the next.

This document is intended to be a useful tool for mathematics educators. The activities contained in this document can be incorporated into a lesson plan, modified to enhance an existing lesson, or act as a springboard for other activities. Teachers may want to use all or most of the activities that will best support their students’ learning.

I encourage you to share this document with teachers who are responsible for mathematics instruction. For additional copies, please feel free to print from our website at <http://www.emsc.nysed.gov/ciai/mst/math.html>. If you prefer to purchase additional copies, please contact the New York State Education Department Publications Sales Desk, Third Floor, Education Building, Washington Avenue, Albany, NY 12234 (518-474-3806).

Sincerely,

Roseanne DeFabio



A Toolkit for Mathematics Educators

Key Ideas Module

KEY IDEA TASKS TO ENHANCE SUCCESS

*A Practical Guide for Prekindergarten to Grade 12
Mathematics Instruction*



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Acknowledgments

The New York State Education Department acknowledges the assistance of mathematics educators from across New York State, AMTNYS (Association of Mathematics Teachers of New York State), NYSAMS (New York State Association of Mathematics Supervisors), regional mathematics organizations, and the KITES (Key Idea Tasks to Enhance Success) committee in the development of the Key Ideas Module.

Key Idea Tasks to Enhance Success

(KITES)

What is it?

KITES was written to complement the New York State **Mathematics Resource Guide with Core Curriculum**. It contains some practical applications for classroom use for each key idea. Written by New York State teachers, this document demonstrates how each of the seven key ideas evolves from prekindergarten to the commencement level.

For each key idea, the teachers created a series of activities centered around a unifying theme to illustrate how a concept expands from one grade to the next. When developing these activities for each level, the teachers focused on appropriate expectations based on the New York State **Learning Standards for Mathematics, Science, and Technology** (Standard 3—Mathematics).

What is it NOT?

KITES is NOT a curriculum. It does NOT cover every performance indicator listed in the New York State **Mathematics Resource Guide with Core Curriculum**. The tasks listed for a specific grade level are NOT limited for use at that level.

How is it organized?

KITES is organized by key idea. The performance indicators addressed in the tasks are listed at each level. For each key idea, a collection of suggested classroom tasks, activities, and notes for implementation is provided. The activity sheets are intended to be duplicated for use in the classroom.

The vocabulary necessary for mathematical understanding of the concepts is identified in **bold** type. This vocabulary is not intended to be all-inclusive. It can, however, be incorporated into classroom word walls, journal responses, spelling and vocabulary lists, and flash cards.

Teachers may notice that many activities incorporate more than one key idea. The key ideas are rarely taught in isolation; therefore, performance indicators from other key ideas may be addressed but not listed.

How can educators utilize it?

KITES is intended to be a useful tool for mathematics educators. The activities contained in this document can be incorporated into a lesson plan, modified to enhance an existing lesson, or act as a springboard for other activities. In some instances teacher notes are provided for activities. These ideas could also be integrated into other content areas. Knowledge of the concepts that precede and follow a grade level enables the teacher to make more effective curricular decisions. This document offers teachers a prekindergarten through grade 12 perspective in mathematics.

Administrators could use this document for professional development. It can be utilized to launch valuable discussions at grade-level, department, and faculty meetings. Higher education faculty may use this document in both undergraduate and graduate programs. For an electronic copy of this document and other documents, visit www.emsc.nysed.gov/ciai/mst/math.html

