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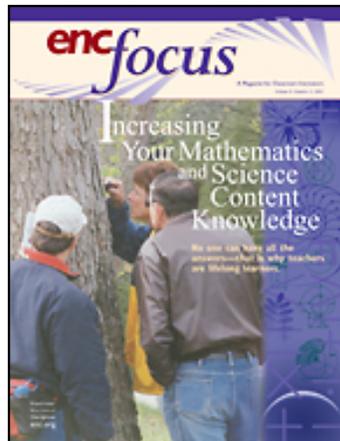
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Increasing Your Mathematics and Science Content Knowledge

One of teachers' primary concerns is how to become better teachers for their students. Renowned mathematics educator Liping Ma urges teachers "do not forget yourself as a teacher of yourself," and that is the message of every article in this issue.

Welcome to the electronic version of the *ENC Focus* issue on the topic **Increasing Your Mathematics and Science Content Knowledge**



This page provides access to the full text of all articles in the print version of the magazine. Some articles have been enhanced for this electronic version, and the list of theme articles has been organized by content rather than reflecting the layout of the print version.

This electronic version has other benefits. The [Focus Online Discussion Area](#) allows in-depth exploration of topics, sharing of classroom experiences, and opportunities to interact with article authors. Live links are provided for all web sites mentioned. [Focus on the Collection](#) links to complete catalog records of resources selected from ENC's vast collection.



[Join our online discussion of articles in this issue!](#)

Update: Around the Clearinghouse and the Nation

This section features educational news, editorials, essays, classroom stories, and columns on topics of interest to classroom innovators.

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Editorial

[Watching Ourselves Learn](#)

by Annette Thorson

Using the Internet

[Search Smarter!](#)

by Kimberly S. Roempler

ENC Partners

[Teacher Education Materials Project](#)

by Joan Pasley and Thomas Gadsden

ENC in Action

[Researching New Ways to Serve You!](#)

by Annette Thorson

Focus On Increasing Your Mathematics and Science Content Knowledge

One of teachers' primary concerns is how to become better teachers for their students. ENC's teacher advisory group supported this view when they overwhelmingly selected Increasing Your Mathematics and Science Content Knowledge as a topic for *ENC Focus*. Renowned mathematics educator [Liping Ma](#) urges teachers "do not forget yourself as a teacher of yourself," and that is the message of every article in this issue.

[Teachers Need A Special Type of Content Knowledge](#)

by Zalman Usiskin

[An Interview with Liping Ma](#)

by Terese Herrera

[A Deeper Look at Elementary Mathematics](#)

by Melanie Shreffler

[Staying a Step Ahead](#)

by Pamela Galus

[ENC Can Help You Increase Your Content Knowledge](#)

by Judy Spicer and Laura K. Brendon

[Basic Skills and Conceptual Understanding: It's Not Either/Or](#)

by Joan M. Kenney

[NASA Reaches Out to Teachers](#)

by Terri Payne Butler

[Essential Science in Elementary School](#)

by Sue Mattson

[A Steep Learning Curve](#)

by Tina L. Coplan

[More Content Courses? Maybe Not!](#)

by Paul Baker

[Formulating Formulas: The Making-a-Mess Method](#)

by Anne C. Patterson

[Where does "poly-water" come from, anyway?](#)

by Deanna Buckley

[Turning Misconceptions Into Teachable Moments](#)

by Jennifer Gonya

[Aspiring to Be a Teacher](#)

by Judy Spicer and Michael Khoury, Jr.

[Did You Hear About . . .? What Does It Mean . . .?](#)

by Susan Dahl

Focus On The Collection

ENC content experts have chosen materials from the ENC Collection on increasing your mathematics and science content knowledge.

[A Continuous Process of Growth](#)

by Terese Herrera and Carol Damian, *ENC Instructional Resources*

ENC's mathematics and science content specialists explain their process for choosing materials for this section.

Materials are featured in the following categories:

- [Algebra and Algebraic Thinking](#)
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- [Data Analysis and Probability](#)
- [Earth Space and Environmental Science](#)
- [For Further Exploration in Mathematics](#)
- [For Further Exploration in Science](#)
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