

<b>Feature</b>	<b>How a Math Coach Might Use It</b>
<p>The Introduction in the Guide for Teachers is a reflection on the changes in K-5 math teaching and a call to assess where each of us are in the change process.</p>	<p>Have teachers read and discuss this chapter to identify where they might be on this journey. How and why have they changed their instructional practices in recent years? What are their beliefs about mathematics? Is their teaching aligned to current standards?</p>
<p>Book study questions can be found at the end of each chapter.</p>	<p>Set up as a teacher book study using the questions at the end of each chapter to spark conversations and reflection about instructional practice.</p>
<p>Practical tips are found throughout the chapters.</p>	<p>These “tips” lists are perfect for sharing with teachers during PLCs, workshops, grade-level planning sessions, or individual coaching sessions. Find tips sheets on teaching through discovery, supporting problem solving, creating a climate conducive to math talk, using children’s literature in math class, modifying math tasks, and much more.</p>
<p>Short video clips (in the online resources)</p>	<p>The brief video clips are perfect for professional learning. A brief description and discussion starter is included with each clip. Share a clip and then have teachers discuss what they noticed (i.e., What types of questions did the teacher ask? What did they notice about student insights? What might they do differently and why? What would they suggest the teacher do next?).</p>
<p>Bibliography of children’s literature related to math content (in online resources)</p>	<p>Share this annotated bibliography with teachers who want to connect the math they are teaching to an engaging context. Discuss some of the ideas on pages 71-75 to support the planning of lessons that integrate math and literature.</p>

Chapter	“Don’t Miss” sections for Math Coaches	How a Math Coach Might Use It
1	Leading for Change (pp 14-17)	Read this section to reflect on why this change process is so difficult for your teachers.
2	Gathering Insights About Math Teaching Through Observation (pp 27-44)	Read this section for practical tips for walk-throughs and coaching observations. See the online resources for lists of what to look for as you observe math teaching.
3	Analyzing Testing Data (pp. 46-54)	Read this section for a step-by-step protocol for facilitating discussions about school data and developing a school action plan. See the online resources for templates to identify contributing factors to the school data and recording the school or grade-level action plan.
3	Analyzing Students’ Work (pp. 54- 61)	Read this section for a step-by-step protocol for facilitating discussions about student work including discussions of students’ observed strengths and needs, as well as implications for next steps. See the online resources for questions to guide these teacher discussions, as well as sample constructed response tasks for grades K-5.
4	Exploring Professional Learning Options (pp. 68-80)	Gather tips for facilitating professional learning through small-group meetings (e.g., collaborative planning, faculty study groups, book study), for conducting demonstration lessons and co-teaching experiences, and for planning and conducting workshops. Explore the online resources to gather planning sheets, sample agendas, book study reflection sheets, a teacher needs assessment, and other PD planning resources.
5	Communicating with Parents (pp. 110-115)	Gather ideas for planning events that help parents understand your vision of elementary mathematics including back-to-school nights, family math nights, math fairs, and many more. See the online resources for sample planning sheets, parent/child math calendars, and math fair ideas.
5	Frequently Asked Questions (pp. 116-124)	Read this section to reflect on, and share with teachers, frequently-asked parent questions and how we might answer them.
Conclusion	Thinking Through the Change/Making the Change (pp. 125-129)	This section includes a comprehensive series of questions to guide your school/district’s efforts to transform math teaching. Use these questions to prompt staff discussions or guide your reform efforts.

Feature	How a Math Coach Might Use It
About the Math	<p>Each module begins with an About the Math section that shares a quick look at the math to be taught. This section includes examples and diagrams of the grade-level content, and shares student expectations, all in teacher-friendly terms. This brief view of the math content and standards is a great way to jump start teacher planning meetings, clarifying the standards for the upcoming math topic.</p>
Progressions Chart	<p>Found in the About the Math section, this progression chart offers a quick glimpse of the skill in the grade before and the grade after. You might highlight the importance of teachers knowing what comes before/after as they plan their grade-level lessons. What comes before might provide ideas for initial tasks that check for retention of key ideas from the previous year, and what comes after guides teachers to thoroughly prepare students for the complexity of the skill in the following year.</p>
Learning Outcomes	<p>These simple “I can...” statements sum up the skills/concepts and provide focus during teacher planning.</p>
Ideas for Instruction and Assessment – Lessons	<p>This section offers possibilities for lessons that build understanding through models and math talk. You might look through the lessons in this section to discuss key elements of the lessons (e.g., hands-on and visual explorations, problem solving integrated with computation skills, teacher questioning...).</p>
Ideas for Instruction and Assessment – Formative Assessments	<p>Options for formative assessment also appear in this section. Discuss and select formative assessment tasks with teachers. Many of the formative assessment tasks include an example of student work, so you can discuss what teachers might see, or would like to see, and explore the types of responses that demonstrate proficiency.</p>

Feature	How a Math Coach Might Use It
Additional Ideas for Support and Practice	<p>Do teachers need ideas for continuing the learning with a small group of students who need more time? Do they need suggestions for getting students talking about the ideas? Would they benefit from finding engaging practice tasks that might take the place of traditional worksheets? Discuss the options in this section for engaging students in ongoing discussion and practice of the skill/concept.</p>
Thinking Through a Lesson	<p>One lesson in each module is titled “Thinking Through a Lesson”. This lesson has additional support (coaching speech bubbles) to help teachers get a glimpse into the thoughts of the teacher who developed the lesson. These are great lessons to discuss with teachers as they provide insight into the decisions made during the development of the lesson.</p>
Vocabulary Lists	<p>These appear near the end of each module and highlight important content vocabulary specific to that topic at that grade level. Brainstorm ways to develop this language with students. You might refer teachers back to the Guide for Teachers (Chapter 4, pp. 109-119) for ideas on developing content vocabulary.</p>
Table of Contents for Online Resources	<p>At the end of each module is a list of the online resources that relate to the activities in that module. Open the online resources on the website and explore them with teachers. Are there any that might be modified to work more effectively with this group of students? Most files are in Microsoft Word to allow them to be easily customized. Talk about some possible modifications to better meet specific needs of students.</p>