

Letter to 6–8 Teachers

Dear Grades 6–8 Teachers,

As a teacher, you make hundreds of decisions every day! Many of these decisions fall into the categories of classroom management or paperwork, such as deciding which student should sit next to which student or determining if you need to call that parent tonight or tomorrow. Some decisions are crucial to the classroom climate and environment and set the stage for how students learn. Among the hundreds of decisions you make, the most important are those that influence student learning. Designing, planning, and facilitating lessons reflect critical teacher decision-making opportunities that affect student learning. Oftentimes, these decisions get relegated to a few moments of planning time.

In this book, *The Mathematics Lesson-Planning Handbook, Grades 6–8: Your Blueprint for Building Cohesive Lessons*, you will experience the decision-making processes that are involved in planning lessons, and you will get to build a lesson of your own using a specially designed format just for you. Your decisions will revolve around creating mathematics lessons with purpose, rigor, and coherence. In addition, we will help you address the decisions involved in selecting your resources (e.g., “How do I make the best use of my textbook or state/district instructional materials?”), your classroom structure (e.g., “Is planning different in a block schedule vs. a 45-minute per day schedule?”), your worthwhile tasks (e.g., “How do I know one when I see it?”), your learning intentions (e.g., “What are my objectives?”), and your success criteria (e.g., “How will I know my students have learned?”). We will show you the importance of identifying big ideas, anticipating student misconceptions, implementing formative assessment, facilitating a lesson with questioning, and closing a lesson with reflection techniques.

Each chapter includes a reflection by a middle school teacher, examples for each grade level (6–8), an opportunity to reflect on the ideas presented, suggestions for building a unit from your lesson, and an Under Construction section to help you build a lesson on the content of your choice. A glossary in Appendix D provides definitions for words highlighted in each chapter.

Keep in mind that the goal of teaching is student learning. The best lessons that students can experience always begin with a prepared teacher.

Sincerely,

Lois A. Williams
Beth McCord Kobett
Ruth Harbin Miles

Letter to Middle School Principals

Dear Middle School Principals,

Some teachers *implement lesson plans* written by textbook publishers or by other professional curriculum writers. We argue that this is not enough. To positively affect the learning of their students, teachers need professional decision-making opportunities.

In this book, *The Mathematics Lesson-Planning Handbook, Grades 6–8: Your Blueprint for Building Cohesive Lessons*, your mathematics teachers will experience the decision-making processes that are involved in planning lessons for purpose, rigor, and coherence, and they will build a lesson of their own using a format created for them. In addition, we will help them address the decisions involved in selecting resources (e.g., “How can teachers make the best use of their textbook or state/district instructional materials?”), classroom structure (e.g., “Is lesson structure different in a block schedule than a more traditional middle school schedule?”), worthwhile tasks (e.g., “How do they recognize them?”), lesson intentions (e.g., “What are the objectives?”), and success criteria (e.g., “How will the teachers know their students have learned?”). We will help them examine the importance of identifying big ideas, anticipating student misconceptions, implementing formative assessment, facilitating a lesson with questioning, and closing a lesson with reflection techniques.

Each teacher on your mathematics faculty has a different level of mathematics expertise, but all bring knowledge, unique skills, and distinct ideas to the lesson-planning process. As a leader, you may want to capitalize on these varying skills by supplying every mathematics teacher with a personal copy of this book for use as a department-wide book study. Providing the opportunity for teachers to engage and use the book in planning with colleagues will allow teachers to dig deeply into their standards and collaborate to leverage each other’s knowledge and experience. After all, your best-prepared teachers are the most effective players on your team!

Sincerely,

Lois A. Williams
Beth McCord Kobett
Ruth Harbin Miles

Letter to Mathematics Coaches

Dear Mathematics Coaches,

Your work with teachers must, undoubtedly, encompass a great deal of time and effort planning mathematics lessons. This guide is designed to unpack the lesson-planning process to help teachers understand the importance of teacher decision making as they plan effective mathematics lessons to support student growth. Currently, some teachers simply *implement lesson plans* written by textbook publishers or by other professional curriculum writers. We argue that this is not enough. To positively affect the learning of their students, teachers need professional decision-making opportunities.

As you know, collaborative planning can be particularly powerful for teams of teachers. You may find that a three-step process, incorporating a planning, trying, and reflective cycle, will be most helpful for your teachers. Consider beginning small, tackling the content by chapter, to increase successful implementation.

In this book, *The Mathematics Lesson-Planning Handbook, Grades 6–8: Your Blueprint for Building Cohesive Lessons*, your middle school teachers will experience the decision-making processes that are involved in planning lessons for purpose, rigor, and coherence, and they will build a lesson of their own using our format. In addition, we will help them address the decisions involved in selecting resources (e.g., “How can teachers make the best use of their textbook or state/district instructional materials?”), classroom structure (e.g., “Is lesson structure different in a block schedule than a more traditional middle school schedule?”), worthwhile tasks (e.g., “How do they recognize them?”), lesson intentions (e.g., “What are the objectives?”), and success criteria (e.g., “How will the teachers know their students have learned?”). We look at the importance of identifying big ideas, anticipating student misconceptions, implementing formative assessment, facilitating a lesson with questioning, and closing a lesson with reflection techniques.

Your middle school mathematics teachers have varying levels of mathematics expertise, but all bring knowledge, skills, and distinct ideas to the lesson-planning process. Providing the opportunity for teachers to engage and use the book in planning with colleagues will allow teachers to dig deeply into their standards and collaborate to leverage each other’s knowledge and experience. Be sure to invite teachers to bring this resource to all planning and professional development sessions. After all, your best-prepared teachers are the most effective players on your team!

Sincerely,

Lois A. Williams
Beth McCord Kobett
Ruth Harbin Miles

Letter to Preservice College and University Instructors

Dear Preservice College and University Instructors,

Preservice teachers for Grades 6–8 must learn how to develop lesson plans to professionally prepare for teaching their students. One of the critical goals of a methods class is to guide preservice teachers and help them learn to create effective, well-crafted, and engaging mathematics lesson plans.

A recent study published in the *American Educational Research Journal* states that preservice teachers remember and use what they learned in teacher-prep programs about writing lesson plans for mathematics (Morris & Hiebert, 2017). You have a major role to play, and this book can help you unpack the lesson-planning process.

The Mathematics Lesson-Planning Handbook, Grades 6–8: Your Blueprint for Building Cohesive Lessons, helps your preservice teachers experience the decision-making processes involved in planning lessons for purpose, rigor, and coherence, and it guides them through the steps of building a lesson of their own using a format created for them. In addition, we help them address the decisions involved in selecting resources (e.g., “How can teachers make the best use of their textbook or state/district instructional materials?”), classroom structure (e.g., “Is instruction different in a block schedule vs. a more traditional middle school schedule?”), worthwhile tasks (e.g., “How do they recognize them?”), lesson intentions (e.g., “What are the objectives?”), and success criteria (e.g., “How will the teachers know their students have learned?”). We look at the importance of identifying big ideas, anticipating student misconceptions, implementing formative assessment, facilitating a lesson with questioning, and closing a lesson with reflection techniques.

The handbook includes 14 chapters that may easily be incorporated into a 14-, 15-, or 16-week methods course. The resource provides the opportunity for preservice teachers to engage and study the content chapter by chapter. As a result of their learning, this book will influence professional practice in lesson planning. After all, the preservice teachers’ knowledge influences how they plan for instruction throughout their careers.

Sincerely,

Lois A. Williams
Beth McCord Kobett
Ruth Harbin Miles

How to Use This Book

In the words of Benjamin Franklin, “Failing to plan is planning to fail.” The best lessons students can experience always begin with a prepared teacher who considers student learning the primary goal of instruction.

Searching the Internet for lessons plans to use or adapt may seem to be an efficient way to plan. However, you will likely spend hours searching for the perfect lesson only to find that what you needed/wanted was not quite what you found. In contrast, planning your own lessons is a special skill that has invaluable rewards both for you and for your students. This guide will help you plan lessons that are strategically designed with YOUR students in mind.

When you are able to build your own mathematics lessons, you have the power to make decisions about all aspects of your students’ learning, including how to make the content meet your students’ individual needs. This approach may seem overwhelming in the beginning, because creating an effective lesson plan requires thinking and practice to consider all the factors you need. The good news is that after a bit of practice, it will become second nature.

Start slowly and take each chapter one at a time. We find that teachers who follow this process gain new insight into the mathematics they are teaching, which, in turn, helps them to better facilitate their students’ learning.

Part I of this book begins with the premise that good instruction should be planned with purpose, coherence, and rigor in mind. It includes a chapter emphasizing that middle school children have specific needs and that, as a teacher, you need to plan lessons in accordance with those needs. At the beginning of Part II, you will find the lesson-planning template that reflects all of the decisions a teacher makes when planning and facilitating a lesson. It may seem overwhelming at first glance. However, with practice, you will find that these decisions become second nature to your planning process.

Part II comprises a series of chapters for each component of the template. Each chapter includes the following:

- A reflection by a 6–8 teacher wrestling with the decision-making part of the component
- Ideas and information to help with your decision-making process
- Snapshots that model the gradual construction of a sixth-, seventh-, and eighth-grade lesson plan chapter by chapter
- A section highlighting the importance of coherence for future lessons in a unit
- Questions for reflection
- An Under Construction section for you to begin planning your own lesson

Part III helps you put it all together with suggestions for planning to launch, facilitate, and close your lesson. Appendix A will show you the complete lesson plan for each grade (6–8) so that you can see how it has come together in the end. A blank template can be found in Appendix B and is available to download online at resources.corwin.com/mathlessonplanning/6-8.

Additional readings and resources are available in Appendix C. Throughout the book, you will find words that appear in bold type. You can find their meanings in the glossary in Appendix D.

You may wish to begin the planning process by tackling one chapter at a time. You can read about an approach, try it out, and then, after completing the next chapter, integrate additional new concepts into your planning process. Take it slow, reflect along the way, and, before you know it, you will be planning robust mathematics lessons! Let’s begin!