

LARRY AINSWORTH | KYRA DONOVAN

# RIGOROUS CURRICULUM DESIGN



————— *How to* —————

CREATE CURRICULAR UNITS OF STUDY  
THAT ALIGN STANDARDS, INSTRUCTION,  
AND ASSESSMENT

SECOND EDITION

 International Center for  
Leadership in Education

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## WEST HAVEN PUBLIC SCHOOLS, WEST HAVEN, CONNECTICUT

Larry dedicated the first edition of *Rigorous Curriculum Design* to the leaders and educators of West Haven Public Schools, in West Haven, Connecticut, with whom he was fortunate to collaborate during the district's initial years of RCD design and implementation. Many of West Haven's examples and descriptive commentaries from that first publication have been included in this second edition. Sincere thanks again to these outstanding curriculum supervisors: Ann Valanzuolo, English language arts; Amy Jo (A.J.) Palermo, mathematics; Raffaella Fronc, science; and Mark Consorte, social studies. And a singular thank-you to assistant superintendent Dr. Anne Druzolowski for her exemplary leadership, organization, guidance, and invaluable support in bringing the full RCD vision into reality.

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I will be forever grateful to the teachers and administrators in McMinnville School District, who continue the RCD journey to this day. Thank you for your relentless belief that *all* students can and will learn. You will always hold a special place in my heart. I am honored to have your story shared with educators in this second edition of *Rigorous Curriculum Design*.

## TRACY UNIFIED SCHOOL DISTRICT

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## ABOUT THE AUTHORS

**L**arry Ainsworth is the author or coauthor of numerous published books, including *Common Formative Assessments 2.0* (2015), “Unwrapping” the Common Core (2014), *Prioritizing the Common Core* (2013), *Rigorous Curriculum Design* (2010), *Common Formative Assessments* (2006), “Unwrapping” the Standards (2003), *Power Standards* (2003), *Five Easy Steps to a Balanced Math Program* (2000 and 2006), *Student Generated Rubrics* (1998), and *Getting Started with Rigorous Curriculum Design: How School Districts Are Successfully Redesigning Their Curricula for the Common Core* (2013). His newest workshop, Learning Intentions and Success Criteria, is a step-by-step process that Pre-K–12 educators use to bring clarity to student learning targets.

Larry served as the executive director of professional development at the Leadership and Learning Center in Englewood, Colorado, from 1999 to 2013. Currently an independent education author and consultant, he travels nationally and internationally to assist school systems in implementing best practices related to standards, assessment, curriculum, and instruction across all grades and content areas.

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You are welcome to visit Larry’s website at [www.larryainsworth.com](http://www.larryainsworth.com) to learn how timeless practices work together to improve student learning, showcasing his latest addition to the site—an Inspired Teacher Videos page for

educators sharing why they became teachers, what inspires them, and the touching examples of how they've impacted the lives of their students.

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Kyra supports schools and districts across the country to develop and sustain a standards-based curriculum, assessment, and instruction framework. She was awarded the Oregon Central Office Administrators' Achievement of Excellence Award in June 2016 for her commitment to excellence in education and her leadership in McMinnville School District.

Kyra holds an MEd in both literacy and educational administration. She contributed a chapter to the book *Getting Started with Rigorous Curriculum Design* by Larry Ainsworth and Kristin Anderson.

# ABOUT THE INTERNATIONAL CENTER FOR LEADERSHIP IN EDUCATION

The International Center for Leadership in Education (ICLE), a division of Houghton Mifflin Harcourt, challenges, inspires, and equips leaders and teachers to prepare their students for lifelong success. At the heart of all we do is the proven philosophy that the entire system must be aligned around instructional excellence—rooted in rigor, relevance, and relationships—to ensure that every student is prepared for a successful future. Founded in 1991 by Dr. Bill Daggett, ICLE, through its team of thought leaders and consultants, helps schools and districts bring innovative practices to scale through professional learning opportunities and coaching partnerships guided by the cornerstones of our work: the Daggett System for Effective Instruction® and the Rigor/Relevance Framework®. In addition, ICLE shares successful practices that have a positive impact on student learning, through keynote presentations; the Model Schools Conference, Leadership Academy, and other events; and a rich collection of publications. Learn more at [LeaderEd.com](http://LeaderEd.com).

*Kyra: To my husband, Robert. Thank you for your constant love and support. You make me better. I love you.*

*To my sons, Ian and Colton. I am so proud of both of you. You two inspire me every single day. I love you more than you can imagine.*

*Larry: To my continually supportive and loving wife, Candy. I could never have done any amount of truly meaningful service in education without your shining example always before me.*

# INTRODUCTION

The need for a cohesive and comprehensive curriculum that intentionally connects standards, instruction, and assessment has never been greater than it is today. Educators across the nation need to be able to answer this question at any point during each school year: “How well are my students doing in their efforts to learn the state standards?”

A rigorous—and relevant—curriculum must provide educators with an organized framework that enables them to continually monitor student progress toward mastery of the standards. This curriculum design model should also serve as a predictor of student achievement success on end-of-year standardized tests. By consistently focusing on intended learning outcomes and assessment evidence of student learning, educators can adjust their instruction based on student learning needs. They can better utilize available instructional resources to help all students learn their grade-level or course-specific standards.

## THE NEED FOR A ROAD MAP

For educators to meet the challenging learning needs of students—comprehend all the standards, prepare for a variety of formative and summative assessments, and demonstrate proficiency on high-stakes external exams—they must have a clear road map to follow throughout the school year. Such

a road map must offer busy educators an overall organizational plan to meet these needs, a plan that

- Clearly specifies standards-based student learning outcomes
- Includes the different categories of high-effect-size instructional strategies: differentiation (additional supports for all students that also include strategies for enrichment), intervention, and those most appropriate for special education students and English Language Learners
- Offers engaging learning experiences—authentic performance tasks—that represent relevant, real-world problems where students can *apply* their learning, *in addition to* the more traditional types of textbook- or program-based learning activities
- Provides an *aligned* set of assessments to gauge student progress before, during, and after each instructional unit of study
- Includes enough detail in the unit design to support the writing of weekly plans and the designing of daily lessons

This comprehensive road map needs to present new teachers with a detailed structure and pace to follow, and experienced teachers with a flexible framework within which to apply their expertise. Essentially, it must offer all teachers a collaborative model for creatively planning and delivering an accessible and user-friendly curriculum that collectively addresses these multiple requirements.

## A ROAD MAP READY TO FOLLOW

This second edition of *Rigorous Curriculum Design* reintroduces a carefully sequenced, hands-on model that curriculum designers and educators in every school system can follow to create a progression of units of study that keep standards, instruction, and assessment tightly focused and connected. Applicable to every grade, course, and content area, this new volume describes and illustrates

- What a rigorous—and relevant—curriculum *is* and how to create, sequence, and pace such a curriculum

- How to build the *foundation* for designing a rigorous Pre-K–12 curriculum
- How to design a grade- or course-specific curricular unit of study, from start to finish
- How to use formative assessments and data analysis to guide instruction before, during, and after each unit
- How to monitor student progress toward desired learning outcomes throughout the year
- How leaders can organize, implement, and sustain this model throughout the school and/or school system

## WHY A SECOND EDITION?

In 2010, Larry wrote *Rigorous Curriculum Design* to assist school districts in need of revising their outdated curricula. Because its publication that year also coincided with the release and rapid adoption by nearly all states of the Common Core State Standards (CCSS) in English language arts and mathematics, numerous school systems across the US selected the RCD framework to guide their K–12 educators in the creation of *all-new* curricula aligned to the CCSS.

In Oregon's McMinnville School District, Larry worked closely with Kyra Donovan, a central office administrator whose role it was to oversee curriculum, instruction, and assessment for McMinnville and lead their K–12 educators through the multistep process of creating rigorous curricular units of study directly aligned to the CCSS. With the unflagging support of district superintendent Dr. Maryalice Russell, Kyra oversaw the highly successful implementation of this work for the next seven years. In her current role as director of professional learning for the International Center for Leadership in Education, Kyra has continued to assist school systems across the country in effectively implementing the RCD framework.

Partnering to coauthor this second edition of *Rigorous Curriculum Design* in 2019, we have kept the original framework essentially unchanged, owing to its continually proven effectiveness in school districts across the US. However, updates and enhancements to the process gained through nearly a decade of leading RCD workshops nationwide made a second edition both practical and



highly beneficial to those already engaged in the revision of their curricula as well as those just beginning the journey of doing so.

Updates and new additions to this second volume include the following:

- Standards examples illustrating each step without reference to the Common Core so that the model is applicable to every state's unique set of learning standards
- Clarification of the term *rigor* and its important role in curriculum design
- An important new focus on *relevance* in the design of rigorous curricular units of study, meaning the inclusion of real-world problems that are both predictable and unpredictable, situations that afford students the opportunity to apply their learning in realistic contexts
- Another key aspect of *relevance*—educators making learning relevant for students by providing them with *choice*: choice of texts to be read and analyzed, choice of problems to solve using skills and concepts being learned, choice to apply their learning to a topic they personally care about
- Emphasis on creating a rigorous and relevant curriculum where the teacher facilitates student learning of the Priority Standards (rigor) while students are actively engaged in “doing the thinking and learning” within a real-life application (relevance)
- The Rigor/Relevance Framework to complement the RCD design framework
- Expansion of content to include “lessons learned” by school and district leaders who are in years 1, 2, and 3 of RCD implementation
- Success stories from school systems that have implemented the RCD framework and experienced improved student learning on state exams

## WHAT EXACTLY IS RIGOROUS CURRICULUM DESIGN?

Often confused with the true goal of student learning—attainment of the standards—curriculum is not the end in and of itself. Rather, it serves as the means to the end. What's unique about the RCD framework is that it is a

standards-based framework that enables educators to answer in the affirmative this fundamental question: “Are my students learning the standards?”

In this second edition, we are defining a rigorous curriculum as follows:

A rigorous curriculum is an inclusive set of intentionally aligned components—clear learning outcomes with matching assessments, engaging and relevant learning experiences, and high-effect-size instructional strategies—organized into sequenced units of study that serve as both the detailed road map and the high-quality delivery system for ensuring that all students achieve the desired end: the attainment of the designated grade- or course-specific standards within a particular content area.

Our vision for designing such a curriculum is founded on two basic requisites: (1) the intentional alignment between standards, instruction, and assessment, and (2) the inclusion of both rigor *and* relevance in the design process.

Curricular architects must acknowledge that the function of a rigorous curriculum is to *raise the level of teaching and learning* so that students are prepared for the future with skills that “drive knowledge economies: innovation, creativity, teamwork, problem solving, flexibility, adaptability, and a commitment to continuous learning” (Hargreaves & Shirley, 2009).

A comprehensive curriculum that is both rigorous and relevant needs to include the following:

- *Specific* learning outcomes that students are to achieve from pre-kindergarten through grade 12 in all content areas
- *Vertical alignment* of those learning outcomes (grade to grade, course to course) in curricular frameworks
- *Quality* units of study, defined by us here as “a series of lessons, learning experiences, and related assessments—*intentionally aligned to* specific Priority Standards and related supporting standards—for an instructional focus that may last anywhere from two to six weeks”
- Emphasis on standards-based skills *and* content knowledge
- Academic vocabulary specific to each content area and pertinent to each unit of study

- Explicit linkages to state assessments and to college and career readiness
- Higher-level thinking skills
- Interdisciplinary connections
- Authentic and relevant student-centered performance tasks that engage learners in applying concepts and skills to the real world
- Ongoing formative assessments to gauge student understanding
- Sequencing of “learning progressions” (Popham, 2008; Heritage, 2013), the conceptual and skill-based building blocks of instruction
- High-effect-size teaching strategies
- Differentiation, intervention, special education, and English Language Learner strategies to meet the needs of *all* students
- A common lexicon of terms (curriculum glossary) to promote consistency of understanding
- Embedded use of resources and multimedia technology
- A parent communication and involvement component
- A curriculum philosophy that is compatible with or a part of the school system’s mission statement

## WHERE ARE YOU NOW?

In the coming chapters, we propose a realistic approach for designing a curriculum that achieves ambitious—rigorous—outcomes. But before beginning this process, you may want to consider conducting your own needs assessment to determine your current state of readiness.

We encourage you to schedule an orientation session to discuss the scope of the work with those who will be involved in organizing the curricula revision project. Reflect on the curricula you currently have in use to determine your starting point. This will help in clarifying why you are revising your curricula, what needs doing, and how you plan to author the units of study. Sample questions you may want to ask include the following:

- What is our curriculum philosophy? Does it reflect our school system’s mission statement and provide the “ways and means” for fulfilling our educational mission?

- What is the current state of our existing curricula? Are all content areas in equal need of revision, or do we need to prioritize? Which ones must come first?
- Why should we consider revising or updating these curricula now?
- Do we have the necessary resources (time, personnel, budget) and the committed support of leadership (system level and school level) to begin the work and see it through to completion?
- What do we want our revised curricula to be and do? For example, if our curricula were indeed more rigorous, more engaging, and more relevant to *all* students, what would the impact be on their day-to-day motivation and achievement?
- What should the various components of our curricula include?
- What do we want to retain from our existing curricula? What do we want to add?
- What kind of structure, template, or framework will we use? Should it be content-area specific, grade-span specific, or more universal, to promote consistency across the school system?

Answering these and other group-generated questions *before* beginning the actual creation of curricular units of study will provide a helpful and realistic look at current conditions and various viewpoints that organizers are wise to consider in advance of launching the project.

## BUY IT OR BUILD IT

Designing or redesigning curricula is a major undertaking. In preparing to embark on this journey, school systems may investigate commercially produced “turnkey” curricular programs that promise to save school systems the time, effort, and resources required to create their own. But such component-rich programs are expensive to buy and require in-depth professional development for educators to thoroughly understand the program and use it effectively.

For school systems that lack the necessary resources to purchase a costly program and/or that strongly believe that the educators and leaders within their own system should be active participants in the custom design of their

own rigorous curricula, this book is meant to provide a straightforward, do-it-yourself guide for doing so. We feel confident that as your design teams proceed through the RCD process, everyone involved will ultimately come to the realization that you could not buy anywhere what you are building together.

## ESTABLISHING THE WHY

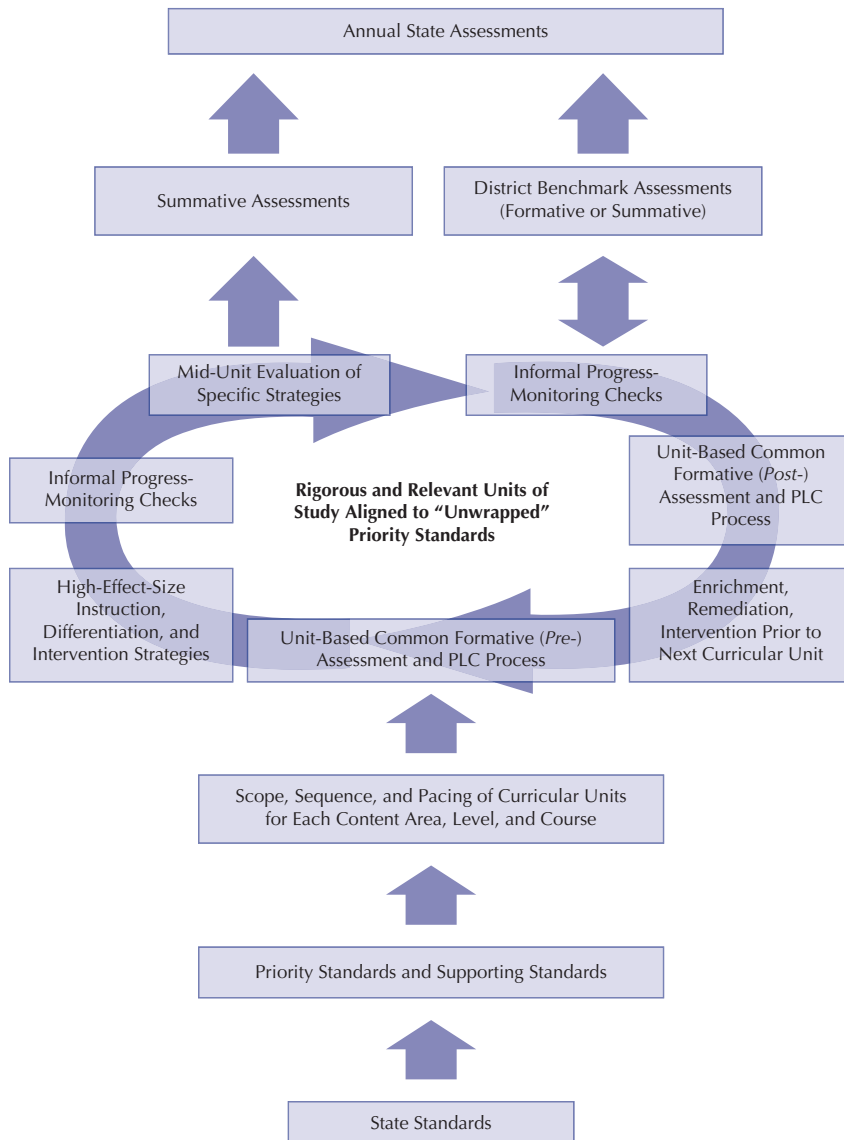
One question we hear regularly from educators and leaders attending our professional learning sessions is, “How do we interest and involve colleagues who are resistant to adding anything more to their plate?”

We can do much to ease the burden educators often feel, by helping them understand *why* we are committing to this new project and *how* it fits in with what we are already doing.

In Kyra’s experience introducing this project to educators and school leaders, she has found it critical to focus *first* on the why, the purpose of the work, and how it will benefit *students* with clear learning outcomes and how to achieve them, and how it will benefit *teachers* with the clarity and focus on what to teach, when to teach it, and how to assess student achievement.

The other vital element in establishing the why is to present everyone with the “big picture.” When educators can see how everything is intentionally connected to everything else, and why each curricular component needs to be a part of the whole—*before* we expect people to get involved—then things start to make much more sense to those whose initial reaction to anything new may understandably be resistance.

To emphasize understanding the why, we’ve included a big-picture diagram to illustrate the intentional connections between the specific professional practices that educators and leaders are implementing to improve student achievement. This big-picture diagram, shown in figure I.1, has served as a great focal point for professional discussions.

**FIGURE I.1** Rigorous Curriculum Design Alignment Chart

## PUTTING IT ALL TOGETHER—THE DIAGRAM EXPLAINED

The alignment diagram in figure I.1 represents the curriculum design and implementation process visually. Curriculum design teams create curricular units of study for educator use by following a detailed sequence of steps. This sequence ensures the intentional alignment among standards, instruction, assessment, and data analysis. The resulting units of study, when well-implemented by participating educators, are sure to improve academic outcomes for all students.

For example, the foundational steps necessary for building the units include prioritizing standards, assigning them to units of study, and determining a pacing calendar. The actual design of each individual unit includes “unwrapping”<sup>\*</sup> of the Priority Standards, writing Big Ideas and Essential Questions, creating pre-assessments and post-assessments, planning engaging and relevant learning experiences, and selecting appropriate instructional strategies to meet the learning needs of all students.

The RCD process also recommends the intentional alignment of in-school assessments *for* learning to district benchmark assessments and summative assessments *of* learning, and then extending that alignment further to external state exams. In this way, each level of assessment provides teachers with *predictive value* of how students are likely to do on subsequent assessments, and it does so *in time* for them to provide students with what Tom Guskey calls “corrective instruction.” This represents the best use of assessment data—to diagnose student learning needs in order to make appropriate instructional changes.

The diagram also previews the sequence of steps that educators will eventually follow in instructional professional learning communities (PLCs) to administer each of the units and assess student progress to gauge the effectiveness of the targeted instructional strategies they are using. Even though the PLC process is not the focus of this book, it is indispensable to effective curriculum *implementation*.

<sup>\*</sup>Please note that while we understand it’s not common practice to continually use quotation marks in this way, the treatment of “unwrapping” and “unwrapped” is consistent with Larry’s other books on the topic. We hope you’ll forgive our creative license here, especially all of the educators reading this who have a copyeditor’s eye!

Again, the purpose of this diagram is to show the big-picture connections between all the interdependent components of a fully aligned system and to set curriculum design within the larger educational context. Each of these key components will be presented sequentially in the coming chapters.

## BOOK OVERVIEW

*Rigorous Curriculum Design, Second Edition* is organized into three parts. Here is a brief overview of each:

**Part 1: Building the Foundation for Designing Curricular Units** explains the five steps that must first be taken to lay the foundation on which to build rigorous curricular units of study, and provides explicit guidelines for applying each step.

**Part 2: Designing the Curricular Unit of Study** gives the “nuts-and-bolts” directions for designing a rigorous curricular unit of study, from beginning to end, and concludes with an overview of how to intentionally plan and administer the unit in the classroom. Formatively assessing students along the way, educators analyze resulting student data to diagnose student learning needs and then adjust ongoing instruction accordingly.

**Part 3: Implementing Rigorous Curriculum Design** addresses the role of administrators in beginning and continuing the work of implementation. The final three chapters of the book provide first-person narratives and advice from administrators who have personally led or overseen the creation and use of RCD within their own school systems, during the first, second, and third years of implementation.

## WORDS OF ENCOURAGEMENT

We have endeavored (1) to pull together all the necessary elements for designing a rigorous and relevant curriculum, (2) to position these elements in a deliberately sequential order, and (3) to provide a step-by-step approach for constructing each element. Our hope is that this road map will not only “show



you the way” to design your own curriculum but also allow you the flexibility of customizing it to fit your own purpose and needs.

Someone once rightly said, “All grand visions come dressed in work clothes.” As is true in the pursuit of any lofty vision, it’s best to know from the outset that it will take a significant investment of time, thought, energy, and collaboration to create and revise a *single* curriculum, let alone multiple curricula. Yet it will be in the collaborative *doing* of this work that its true value will be revealed. The best advice we can offer for staying the course is to regard whatever you produce as a continual work in progress, to be accomplished over one, two, three years, or even longer.

Larry’s former colleague Robert Kuklis wisely pointed out in the first edition of *Rigorous Curriculum Design* (2010) that curriculum designers “shape and modify the process as they move through it. It is important that they know this is not a rigid, prescriptive procedure, but rather an opportunity for learning, adapting, and improving. This preserves fidelity to the process, encourages flexibility, and promotes local ownership” (p. xxii).

Whenever people’s spirits need lifting because the work seems so demanding, remind everyone that this is a *long-term process*, not a one-time event. You are creating something truly significant: a comprehensive body of work that is going to serve your educators, your students, and, by extension, your students’ parents for years to come! So “keep on keeping on.” It will be more than worth it!

Larry Ainsworth and Kyra Donovan  
June 2019



# BUILDING THE FOUNDATION FOR DESIGNING CURRICULAR UNITS

## DIG DEEP AND *CLARIFY THE FOCUS*

### BUILD A STRONG FOUNDATION

Before constructing the curricular units of study, it is critical to first build a strong foundation. Otherwise, curriculum design teams are erecting a superstructure on an uncertain base.

Here is an overview and brief description of each of the five foundational steps presented in part 1:

1. **Prioritize the standards.** Prioritize and vertically align from grade to grade and course to course the state standards or learning outcomes (grade- or course-specific learning expectations) for selected content areas. These represent the “assured competencies” that students are to know and be able to do by the end of each academic school year in order to be prepared to enter the next level of learning.
2. **Decide on the curricular units of study.** Name all the specific units of study for each grade level and course in those selected content areas. Through these units of study, implemented during the year or course, students will learn and be assessed on their understanding and application of the Priority Standards in focus.

3. **Assign the standards—priority and supporting.** Assign Priority Standards *and* supporting standards to each unit of study, taking into account “learning progressions,” those building blocks of concepts and skills that students need to learn before they can learn other ones. Confirm that every Priority Standard is assigned to one or more units of study that will be scheduled for administration *up to and following* state exams.
4. **Prepare a pacing calendar.** Referring to the school district master calendar, create a curriculum pacing calendar for administering the units of study to ensure that all Priority Standards will be taught, assessed, retaught, and reassessed throughout the school year—*prior to* state tests and then to the end of the school year. Adjust the number of days or weeks designated for each unit of study so that all units with the heaviest concentration of Priority Standards can be completed during the months leading up to the high-stakes tests. Factor in a “buffer” period *between* units for the purpose of reteaching and reassessing close-to-proficient students, intervening and reassessing far-from-proficient students, and enriching proficient and above students. *Extend* the pacing calendar to schedule the remaining units of study during the weeks or months following the state tests. Again, adjust the length and/or duration of each unit of study so that it can be implemented before the end of the school year.
5. **Customize the Unit Planning Organizer.** Modify the provided unit planning template to reflect your school’s or district’s needs regarding a unit of study. Add your own language if needed so that teachers are not trying to learn an all-new curriculum vocabulary.

## START A GLOSSARY

As curriculum committees begin discussing the various elements related to curriculum design, participants nearly always ask for clarification about what a certain term or element means. The need to be “speaking a common language” regarding curriculum development emerges early.

Kyra reflects that in McMinnville, “RCD helped us develop a common language of standards, assessment, and curriculum terms. Whether I was speaking with kindergarten teachers or high school teachers about the units they were separately creating, I was able to use the same language with deep understanding by all of the teachers.”

Creating a lexicon or glossary of terms during the beginning stages of the process will benefit everyone involved in the actual design of the curricula *as well as* the educators in classrooms who are not part of the design teams but will be administering those curricula in their own classrooms. Such an initial glossary can be expanded throughout the process to include other terms used in conjunction with standards-based practices.

Near the end of this book, we have included a curriculum glossary of the terms used in the Rigorous Curriculum Design model. Feel free to expand on this glossary of terms while creating your own glossary specific to your district’s context and information needs.



# DESIGNING THE CURRICULAR UNIT OF STUDY

*FOLLOW THE STEPS AND  
TRUST THE PROCESS*

## DESIGN A RIGOROUS CURRICULAR UNIT OF STUDY

Creating an entire unit of study will help teacher design teams deeply understand the standards in the unit, as well as tightly connect the Priority Standards to the assessments in the unit. Each chapter in part 2 provides the “nuts-and-bolts” directions for designing a rigorous curricular unit of study, from beginning to end.

Here is a brief description of each of the twelve design steps presented in part 2. Be sure to include all these elements on the agreed-on Unit Planning Organizer and on the other related planners (provided in appendix A).

1. **“Unwrap” the unit Priority Standards.** “Unwrap” the assigned Priority Standards for each specific unit of study to determine the specific, teachable concepts and skills (what students need to know and be able to do) within those standards.
2. **Complete the graphic organizer.** Using the template provided in the Unit Planning Organizer, complete the graphic organizer to serve as a visual display of the “unwrapped” concepts and skills. The graphic organizer includes two parts: one that lists related concepts and the other that lists each skill, related concept, and approximate level of

Bloom's Taxonomy and Webb's Depth of Knowledge (DOK). Matching each skill and related concept with a thinking-skill level identifies the skill's degree of rigor.

3. **Decide on the Big Ideas and Essential Questions.** Decide on the Big Ideas (key understandings, student “aha’s”) derived from the “unwrapped” concepts and skills for that unit of study. Write Essential Questions that will engage students to discover for themselves the related Big Ideas and state them in their own words by the end of the unit.
4. **Create the end-of-unit assessment.** Create the end-of-unit assessment (either individual classroom or common formative post-assessment) directly aligned to the “unwrapped” Priority Standards. Align the concepts, skills, and format of the end-of-unit assessment questions with district benchmark assessments (K–8) or midterms and finals/end-of-course exams (9–12).
5. **Create the unit pre-assessment.** Create the start-of-unit pre-assessment aligned or “mirrored” to the post-assessment. *Aligned* means that the questions are directly matched to those on the post-assessment, but may be fewer in number. *Mirrored* means that the pre-assessment will include the exact number and type of questions that will appear on the post-assessment.
6. **Identify vocabulary terms and interdisciplinary connections.** In addition to the vocabulary of the “unwrapped” Priority Standards concepts, identify other specific academic or technical vocabulary from the supporting standards that students will need to learn during the unit. Identify any interdisciplinary connections to emphasize when planning authentic performance tasks and related instruction.
7. **Plan authentic performance tasks.** Plan authentic performance tasks directly based on the “unwrapped” concepts and skills with real-world applications that challenge students to utilize deep thought, investigation, and communication. Create accompanying success criteria (scoring guides) as the means for obtaining objective evidence of student learning relative to the tasks and standards in focus. Confirm that the planned performance tasks will give students the conceptual and

procedural understanding of the “unwrapped” concepts and skills represented on the end-of-unit post-assessment.

8. **Gather resource materials.** Gather resources and materials, including technology, that support the planned instruction and related learning activities for the unit. Select the most appropriate instructional resources and materials available that will assist students in learning and applying the “unwrapped” concepts and skills and discovering the Big Ideas.
9. **Select high-effect-size instructional strategies.** Select high-effect-size instructional strategies to use during instruction and related learning activities with the whole class, with small groups, and with individual students.
10. **Detail the Unit Planning Organizer.** Determine the additional details needed to supplement the information on the Unit Planning Organizer. Think of these as “teaching notes” to assist educators when preparing to teach the unit of study. These include, for example, *learning progressions*—the building blocks of unit instruction—a recommended instructional sequence and pacing of the “unwrapped” concepts and skills that students need to know and be able to do first, second, and so on; a suggested list of specific instructional strategies for individual students based on their learning needs (advanced students, at-risk students, special education students, English Language Learners) with suggested ways educators can use those strategies; and other helpful preplanning notes.
11. **Create informal progress monitoring checks (developed by teacher teams, not curriculum design teams).** As grade-level and course-specific educators administer each unit of study, together they will find or create quick progress checks to assess ongoing student understanding of the “unwrapped” Priority Standards. These can be exit slips—short-answer questions that are aligned to the unit post-assessment and administered in conjunction with learning progressions. Informally assessing student understanding throughout the unit of study, educators will be able to adjust instruction where needed so that students

“close their learning gaps” and become prepared for success on the post-assessment.

12. **Intentionally plan and administer the unit.** Referring to the Details to Accompany the Unit Planning Organizer, “backward-plan” the unit of study. Include suggested pacing, an instructional sequence of “unwrapped” concepts and skills, and the various instructional strategies that will be used to meet the learning needs of all students.

## REMEMBER THE BIG PICTURE

Once again, keep in mind that this comprehensive set of steps for designing rigorous and relevant curricular units of study represents the *big picture*, a vision that cannot be accomplished overnight or even in a year. Rather, it is a carefully constructed road map with designated milestones to reach *over time*—a marathon, not a sprint.





# Implementing Rigorous Curriculum Design

STAY THE COURSE AND  
CONTINUE THE JOURNEY

## THE NEED FOR A SYSTEMS APPROACH TO CURRICULUM DESIGN

W. Edwards Deming (2000) defined a *system* as “a network of interdependent parts or components working together to accomplish the aim of the system.” Fred Kofman and Peter Senge (1995) wrote that “the defining characteristic of a system is that it cannot be understood as a function of its isolated components.”

Mike Wasta, former superintendent of Bristol Public Schools in Bristol, Connecticut, sums up what he realized from his own experience in building such a system: “It is essential for everyone to understand that powerful instruction and assessment practices are not separately functioning ‘good ideas’ but are all part of an *intentionally aligned and whole system*” [emphasis added].

## A PROCESS, NOT AN EVENT

One of the real challenges facing educators and leaders in our schools today is the feeling of being overwhelmed. In a system as complex as education, there are so many moving parts to constantly manage effectively that it can often seem as if we are novice jugglers, attempting to keep a hundred balls in the air simultaneously.

These moving parts include the many new professional practices we expect our educators and administrators to be learning rapidly and implementing immediately in their daily work. It's no wonder that the result is "initiative overload," and it takes real fortitude of heart and mind to keep smiling and striving under the weight of so many demands that the job of educating youth places on each of us every day.

Yet the good news is that building such an integrated system is not only possible but also absolutely doable—as long as everyone understands and frequently reminds one another that it is a *multiyear process* and not a one-year event. The key to success is to carefully plan and carry out the process in *incremental steps over time*.

Of course, this does not automatically guarantee universal commitment to the vision; fully accepting a new idea or practice is a gradual process. Teachers rightly deserve to have a clear purpose and logical rationale for investing their time, thought, and energy into a multiyear endeavor. Outward compliance changes more quickly to inner commitment when people understand the "why" and have the opportunity to determine for themselves its merit.

## THE IMPLEMENTATION JOURNEY

In the final three chapters, we present key elements that are critical for the successful implementation of Rigorous Curriculum Design during the first year, second year, and third year and beyond. These elements include, but are not limited to, how to assemble the curriculum design teams, how to pilot the units as teams continue building them, and how to create a system of revision for the units. In addition, three school districts have generously shared their implementation journey thus far.