

Prioritizing Progress to Proficiency

Ready Mathematics Professional Development after an Extended School Closure

Begin to answer the tough questions with professional development designed to address the exacerbated needs and unprecedented challenges of the next school year.

All sessions can be facilitated onsite or remotely. We reserve the right to remotely facilitate a session that has been requested to be on site due to facilitator availability or local conditions. The recommended time for our courses is three hours, unless otherwise noted.

Recommended Scope and Sequence for Teachers

	Beginning of Year	After Diagnostic 1	After Diagnostic 2
 New	Preparing to Teach <i>Ready Mathematics</i> UPDATED	Developing Mathematical Thinkers through Instructional Routines UPDATED	Recommended Options: • Unpacking a Unit • Using Assessment Data • Using Prerequisite Data to Plan for Grade-Level Instruction • Small Group Differentiation
 Practicing	Diagnosing and Planning for Unfinished Learning with <i>Ready Mathematics</i> NEW	Moving Forward with Grade-Level Instruction for <i>Ready Mathematics</i> NEW	Recommended Options: • Unpacking a Unit • Using Assessment Data • Using Prerequisite Data to Plan for Grade-Level Instruction • Small Group Differentiation • Integrating Digital Resources
 Advanced	Diagnosing and Planning for Unfinished Learning with <i>Ready Mathematics</i> NEW	Moving Forward with Grade-Level Instruction for <i>Ready Mathematics</i> NEW	Recommended Options: • Unpacking a Unit • Using Assessment Data • Using Prerequisite Data to Plan for Grade-Level Instruction • Small Group Differentiation • Integrating Digital Resources



Preparing to Teach*	Developing Mathematical Thinkers through Instructional Routines	Recommended Options
Preparing to Teach <i>Ready Mathematics</i> equips teachers to launch a successful implementation. As educators experience <i>Ready Mathematics</i> instruction through video and discussion, they begin to make connections between the program, the Standards for Mathematical Practice, and the NCTM Effective Mathematics Teaching Practices. Educators put their hands on print and essential digital components to learn about the program and prepare for the first few weeks of instruction. This preparation focuses on creating a discourse-rich classroom that supports students' mathematical reasoning and conceptual understanding through each day of instruction to work toward mathematical goals. Educators also learn how to administer the Diagnostic for reliable student data and why that unlocks the power of the Diagnostic to drive differentiated instruction. Outcomes: • Teach Lesson 0 to establish a classroom in which students make meaning of mathematics through purposeful conversation. • Use the Teacher Resource Book to plan and implement <i>Ready Mathematics</i> instruction. • Motivate and prepare students to do their best on the Diagnostic.	In Developing Mathematical Thinkers through Instructional Routines, educators examine how to use the <i>Ready Mathematics</i> Think–Share–Compare routine to support productive student discourse. Educators reflect on data showing students' prerequisite understandings and prepare for opportunities to engage with mathematical practices, including making sense of and solving a task, discussing various strategies, and connecting between representations. Educators plan for the routine within the context of a day of instruction, focusing on effective ways to facilitate student-led discourse that lead to shared understanding of mathematical concepts. Outcomes: • Analyze student prerequisite data to determine how to address unfinished learning within grade-level instruction. • Draw connections between the Think–Share–Compare routine and mathematical practices. • Use the routine as a vehicle for developing conceptual understanding through shared student thinking, productive struggle, and authentic discourse.	• Unpacking a Unit • Using Assessment Data • Using Prerequisite Data to Plan for Grade-Level Instruction • Small Group Differentiation Descriptions and outcomes are on page 4. Select two to three options.

* The Introducing *Ready Mathematics* course is strongly recommended prior to Preparing to Teach *Ready Mathematics*. We also recommend a minimum of four hours for the Preparing to Teach *Ready Mathematics* course.



Diagnosing and Planning for Unfinished Learning**	Moving Forward with Grade-Level Instruction***	Recommended Options
Educators identify the most critical grade-level and prerequisite content that may require additional support and plan whole class grade-level instruction while embedding the necessary prerequisite essential skills. They utilize resources to understand and establish students' learning goals for a unit of instruction, identify how the models and strategies of the unit fit within the learning progression, and consider how to address unfinished learning. Educators also identify lesson pacing within the unit and anticipate when and how they will conduct formative and summative assessments of student learning. Outcomes: • Identify the most critical grade-level and prerequisite content. • Discuss the progression of mathematical ideas and strategies within a unit and identify clear math goals to focus student learning. • Create a plan to address unfinished learning of essential prerequisite skills, develop new concepts, and assess learning throughout the unit.	Educators use data from the Prerequisites report to learn more about each student's understanding of essential knowledge and skills. They then make decisions about upcoming grade-level instruction with specific plans for integrating the prerequisite concepts and skills students may still need, and they learn how to strategically support students when they struggle and engage students in meaningful ways to develop short- and long-term goals for the year. Outcome: Analyze student prerequisite data to determine how to address unfinished learning within grade-level instruction.	• Unpacking a Unit • Using Assessment Data • Using Prerequisite Data to Plan for Grade-Level Instruction • Small Group Differentiation • Integrating Digital Resources to Support a Comprehensive Implementation Descriptions and outcomes are on page 4. Select two to three options.

**Option to add:

***Options to add:

Interactive Video Study

Educators see the Think–Share–Compare routine used in *Ready Mathematics* instruction and engage in purposeful planning to set the stage for viewing the routine. While viewing, educators observe how the *Ready Mathematics* Top Teacher Actions are accomplished via the Think–Share–Compare routine. Educators reflect on the day's learning and create an action plan to incorporate goals identified during the session.

Outcome:

Use the Think–Share–Compare routine to structure mathematical discourse during instruction.

Using Reflective Practice to Enhance Instruction

Educators analyze and discuss actions and beliefs central to teaching and learning math with understanding and enthusiasm and connect them directly to features of instruction. They follow the journey of teachers who encountered struggles as they worked to refine their practice, but made great progress because of their willingness to try and each small win that followed. Through guided discussion of classroom vignettes, educators gain insights into new ways of seeing and interpreting instructional interactions and leave with plans to move their own instruction forward.

Outcome:

Identify steps and resources needed to enhance instruction with new or different teacher and student actions after critical reflection of productive actions and beliefs about teaching and learning.

Sequencing Student Ideas to Deepen Mathematical Reasoning

Educators develop their use of the Think–Share–Compare routine, with a focus on keeping conversation moving toward core grade-level learning goals. This involves eliciting student thinking, creating a sequence of mathematical ideas that connects students' existing skills and knowledge to new, different, or more refined understanding, and using strategic feedback and questions to engage and advance all learners. When educators use the 5 Practices That Promote Classroom Discussion embedded in the routine, they push themselves to consider specific student strategies, struggles, or gaps that might appear and then make decisions about models, questions, and connections that help create paths to progress for all students.

Outcome:

Use *Ready Mathematics'* supports to select and sequence student solutions during whole class discussion while posing questions that lead students to use, discuss, and connect multiple representations.

Recommended Tailored Support Options

Integrating Digital Resources to Support a Comprehensive Implementation

Educators explore the digital components available in *Ready Mathematics* to gain further insight into how they work together to support a comprehensive implementation. They then determine how specific digital components can be utilized to support their everyday instruction.

Outcome:

- Use *Ready Mathematics* digital components to support instruction, practice, assessment, and differentiation.

Using Assessment Data

Educators collaboratively analyze their *Ready Mathematics* assessment data to determine where students are in their pathways to mastery of intended learning outcomes. Educators then create an instructional plan using the data obtained from that assessment, considering learning progressions, upcoming instruction, and available resources to meet student needs.

Outcome:

- Interpret and use *Ready Mathematics* assessment data to inform and plan for instructional next steps.

Unpacking a Unit

As a grade-level team, educators take a deep dive into understanding and planning for an upcoming *Ready Mathematics* unit. Educators utilize *Ready Mathematics* resources to understand and establish students' learning goals for the unit. As a team, educators identify the mathematics in this unit by determining the concepts, models, and strategies to be taught and how these fit within a learning progression. Before concluding the session, educators identify lesson pacing within the unit and anticipate when and how they will conduct formative and summative assessments of student learning.

Outcomes:

- Establish clear math goals for an upcoming mathematics unit to focus student learning.
- Discuss the learning progression of mathematical concepts, models, and strategies within the unit.
- Create a plan for pacing to allow opportunity for the development and assessment of ideas throughout the unit.

Using Prerequisite Data to Plan for Grade-Level Instruction

In Using Prerequisite Data to Plan for Grade-Level Instruction, educators use data from the Prerequisites report to inform upcoming grade-level instruction. By analyzing student understandings of prerequisite skills, educators make a plan to address student needs for whole class or small group instruction within the Think–Share–Compare routine. Educators discuss the differentiated supports that exist throughout the routine and identify strategies to embed them within upcoming instruction, either in whole group or small group settings.

Outcomes:

- Analyze student prerequisite data and identify student learning needs to inform upcoming grade-level instruction.
- Explore differentiation opportunities that exist within the Think–Share–Compare routine.
- Identify strategies and create a plan to address unfinished learning within the context of daily instruction.

Small Group Differentiation

In this session, educators evaluate student needs to create differentiated rotations that leverage *Ready Mathematics* resources in small groups, empowering students to develop autonomy, self-efficacy, and a growth mindset. Educators refine strategies to prepare scaffolds that support students' instructional needs, while honoring their thinking and maintaining the rigor of *Ready Mathematics* to foster student ownership of their learning.

Outcomes:

- Plan for instruction to reteach, reinforce, extend, or personalize student learning.
- Elicit and use evidence of student thinking from *Ready Mathematics* informal assessments to plan for differentiated instruction, providing equity and access for all students.

Supporting English Learners

In Supporting English Learners, educators review the *Ready Mathematics* resources to determine how they can be incorporated within a day of instruction to support English Learners as they develop understanding of grade-level mathematics. Through consideration of these resources, educators gain knowledge for incorporating them into everyday instruction to maximize student learning of both mathematics and language.

Outcome:

- Use the *Ready Mathematics* resources as leverage for discourse opportunities to support English Learners in making sense of grade-level mathematics content while developing their use of academic language and mathematics vocabulary.