

nwea

Professional Learning

Responsive Math Practices

Master math practices that maximize achievement and growth

This math suite provides educators with a deep understanding of content and research-based instructional practices, along with ways to apply that understanding to their unique grade-level instructional needs and content standards:

- Fosters ambitious and equitable instructional practices by building teachers' content expertise and pedagogical content knowledge
- Improves instructional decision-making with a focus on responsive teaching and learning by honing an effective formative assessment process
- Applies evidence-based content derived from robust bodies of expert research including the National Council of Teachers of Mathematics and the Mathematics Learning Study Committee
- Provides methods and strategies that work with any curriculum, focusing on effective teaching and learning in math independent of any assessment or curriculum

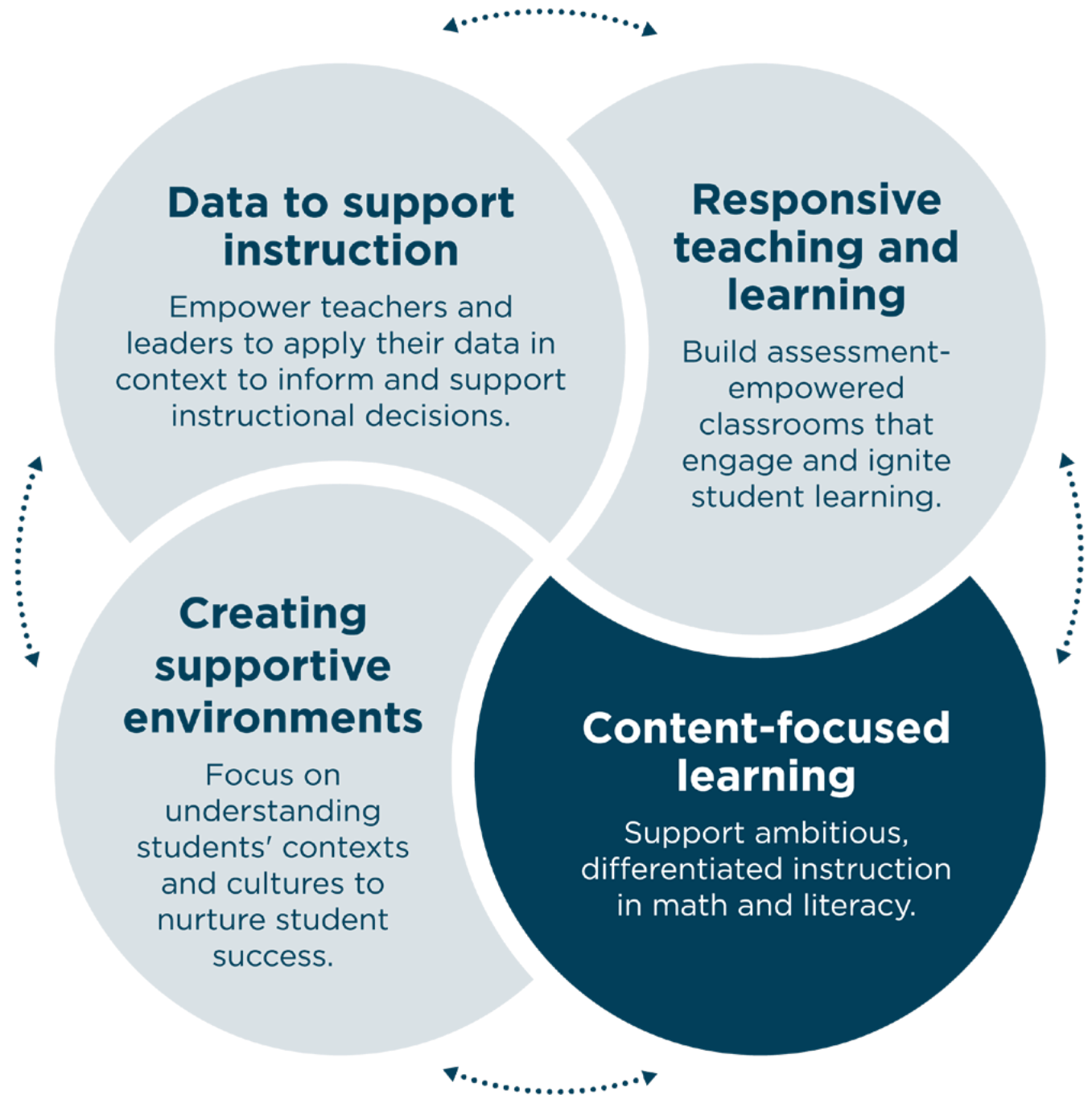


Professional learning that drives instructional change

Teachers demand and deserve the opportunity to grow, learn, and develop as professionals. NWEA® Professional Learning engages teachers in collaborative conversations that foster the high-quality, ambitious instruction that improves student outcomes.

We develop professional practice in four critical, interconnected categories that help educators make the most instructional impact.

The Responsive Math Practices professional learning suite is part of the Content Focused Learning series.



Available offerings

This suite focuses on the key shifts in math in grades K–8, how they progress, and building a culturally responsive environment. Workshops then center on eliciting evidence of students’ math understanding, developing deep conceptual understanding of fractions, and cultivating integer fluency.

GRADES K–8

Guided by the shifts: Math

Beginning with a solid understanding of today’s college- and career-ready standards will equip you with essential knowledge for your instructional practice. In this foundational three-hour session, you’ll gain a deep understanding of the key characteristics of college and career readiness for math, how those characteristics progress across grades, and how to develop a classroom culture that supports discourse and builds a culturally responsive environment. (3 hours)

- What are the characteristics of college- and career-ready standards in math?
- Why are focus, coherence, and rigor essential for college and career readiness?
- What strategies and tools can support math instructional planning in response to college- and career-ready standards?

Utilizing the aspects of rigor in your classroom eLearning

Rigor is one of the characteristics required by college- and career-ready standards and is consciously designed to develop complex thinking and deep understanding of mathematics. Designed as an optional add-on to the “Guided by shifts: Math” offering, this 60-minute self-paced module provides guidance on how to incorporate the most complex of the three college- and career-ready standards shifts—aspects of rigor—into instruction. Learners will discover how to determine the rigor expectations of their standards, how to select tasks and plan lessons that support the appropriate balance of rigor, and how to build scaffolds to ensure all students have access to the same level of rigor. (3 hours)

- How do I ensure students experience an appropriate balance of rigor in their math classrooms?
- How can an appropriate balance of rigor support equity?
- How can I use rigor to support high-quality instruction for all students?

Engaging students: Eliciting evidence of students’ math understanding

Advance your pedagogical content knowledge by cultivating your math questioning skills. Designed for K–8 math teachers, specialists, instructional coaches, and principals, this six-hour offering introduces formative conversation starters, a progressive question-and-answer strategy to elicit evidence of students’ ways of thinking about math concepts, with the purpose of informing instruction. Math concepts will be explored in depth to support classroom discourse.

PART 1 (3 hours)

- How can awareness of math identities support equitable instructional practices?
- How can students develop a meaningful understanding of big math ideas?
- How can purposeful questioning reveal students’ ways of thinking?
- How do I successfully implement formative conversation starters?

PART 2 (3 hours)

- Why is conceptual understanding an essential aspect of equitable instruction?
- How do I use formative conversation starters to inform instruction?
- How can I engage students in a lesson that leverages data from formative conversation starters?
- How do the five practices help conduct a math conversation?

Available offerings

GRADES 3–5

Developing deep conceptual understanding of fractions

As students progress and build their mathematical understanding, flexibility and accuracy with fractions are key elements for determining student success. Grades 3–5 teachers need to support all children in building their understanding of a fraction as a single number and conceptualizing fractions as part of the number system. In this offering, participants will discover the mathematical concepts underlying fractions, how to tackle common misconceptions, and how to make timely instructional adjustments based on student understanding.

PART 1 (3 hours)

- How can we expand our understanding of a fraction as a single number to include partitioning (cutting) and iterating (copying)?
- How can we apply an expanded understanding of fractions to make sense of and solve problems?
- How can we apply our expanded understanding of fractions to make sense of equivalent fractions and to compare fractions?

PART 2 (3 hours)

- What are common misconceptions about operations with fractions?
- How can we make sense of operations with fractions?
- How can formative assessment strategies be used to equitably promote student success with fractions?
- What are the five practices for orchestrating mathematical discourse?

GRADE 6–8

Cultivating integer fluency

Support students in building fluency with integer operations. This six-hour offering addresses a need for professional learning that cultivates habits of thinking about integer concepts for middle-grade teachers. Teachers need space to collaborate with colleagues to consider the underlying concepts that foreground student fluency with integer operations.

PART 1 (3 hours)

- How can we build on students' existing understanding of addition and subtraction to develop their understanding of these operations with integers?
- How can the meaning of addition and subtraction persist when we extend the number system to include integers?
- How does conceptual understanding of integer addition and subtraction support fluency?

PART 2 (3 hours)

- How can we build on existing student understanding of multiplication and division to develop their understanding of these operations with integers?
- How can the meaning of multiplication and division persist when we extend the number system to include integers?
- How does a conceptual understanding of integer multiplication and division support fluency?



Power up your professional learning with these additional services:

Want to deepen the learning with additional time and space for application and practice?

Instructional coaching for teachers

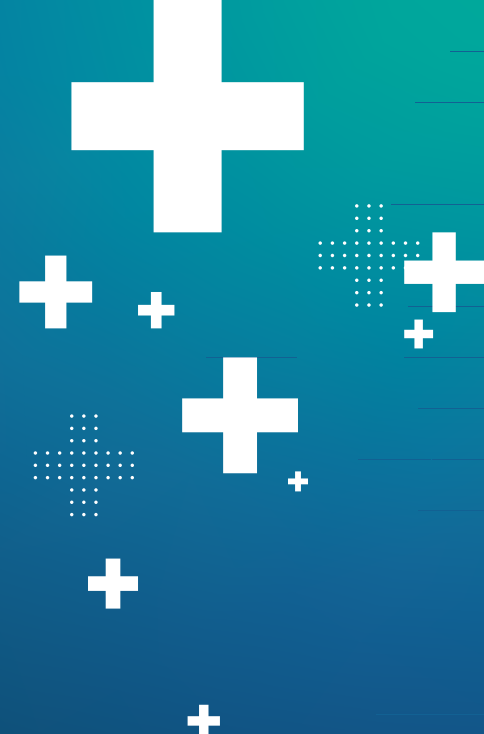
Continue the learning from any of our offerings by adding collaborative coaching. A highly qualified thought partner and practitioner will lead teachers through an inquiry-based coaching cycle to deliver a highly responsive and contextualized experience that takes the learning from theory to practice, using evidence-based and research-driven methods to build teacher capacity, efficacy, and instructional skill.

Want to measure the impact of professional learning on teaching effectiveness and student learning?

Learning and evaluation services

This set of tailored tools and services measures the impact of professional learning on participants, school systems, and students. Beginning with a comprehensive needs assessment, our evaluation services are fully integrated with the planning and delivery of your professional learning to ensure the unique learning needs of your district are being met.





Make meaningful, measurable
instructional change.

Discover more at [NWEA.org/professional-learning](https://www.nwea.org/professional-learning)
or by contacting us at 866.654.3246.



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AUG23 | WELTSK6485