



CARNEGIE
LEARNING

Professional Learning Designed
to Transform

▶ www.carnegielearning.com/services

We're all in. We live to help math educators realize their dream classroom. One where teachers facilitate, students participate, and meaningful learning happens. In addition to overseeing seamless implementations, our team stays connected, delivering strategies and providing support however it's needed — from modeling to coaching to encouraging.

Carnegie Learning Implementation Fidelity

Supporting Carnegie Learning textbook, software, and blended implementations.

INITIAL IMPLEMENTATION WORKSHOP

Up to 25 participants

The Initial Implementation Workshop gets your teachers and coaches started with Carnegie Learning curricula. Participants experience the research-based instructional model, become familiar with the teacher and student materials, and leave with an established process for planning and pacing throughout the school year. Participating educators will learn to:

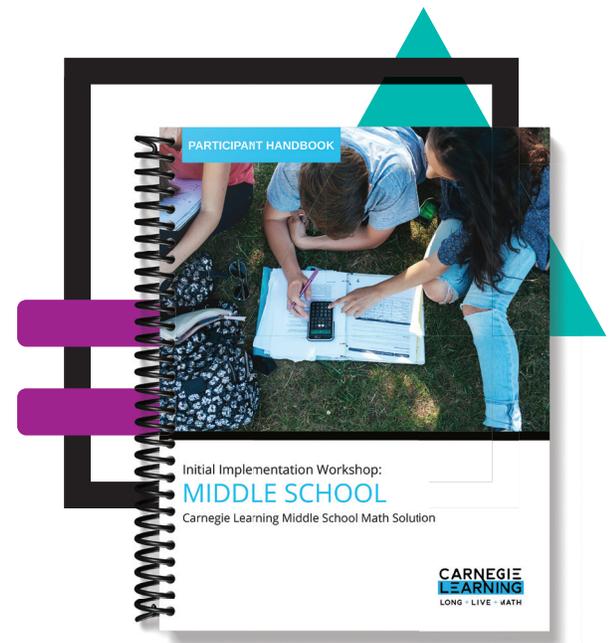
- Effectively implement Carnegie Learning math curricula on a day-to-day basis
- Apply student-centered, standards-based instructional strategies
- Make connections between Carnegie Learning software, texts, and classroom instruction
- Navigate the resources available to teachers and students and the intent behind each of them

IN-CLASSROOM SUPPORT

Limited to 4–6 teachers per day

In-Classroom Support takes place within the classroom and provides side-by-side coaching from the Carnegie Learning Master Math Practitioners. Carnegie Learning Master Math Practitioners intentionally build relationships with teachers and leaders in order to help the student achieve success and promote high-quality Carnegie Learning implementations. During In-Classroom Support, Master Math Practitioners will:

- Support the Carnegie Learning implementation to ensure fidelity to the model
- Provide individual and group coaching to support continuous growth and improvement
- Support student-centered learning and collaborative mathematics classrooms
- Assist schools in monitoring and maximizing a constant stream of data specific to individual classrooms and individual students



VIRTUAL IN-CLASSROOM SUPPORT

Up to 4 teachers per cycle

Virtual ICS cycles are also available and made up of three components spanning over a period of three days to a week's time:

- Initial Planning call between Carnegie Learning Master Math Practitioner and teacher team (up to 4)
- Classroom Recordings submission (by participating teachers)
- Classroom Recordings review (by CL Master Math Practitioner)
- Follow-up call between participating teachers (up to 4) and CL Master Math Practitioner to debrief, reflect, and plan next steps

Virtual ICS cycles are most effective when they begin with an in-person workshop or visit and are sustained and consistent over the course of the school year.

DEMONSTRATION LESSON CYCLE

2-day cycle, up to 2 lessons per cycle

Carnegie Learning Master Math Practitioners will work in partnership with a school/district to provide Demonstration Lessons. In an effort to model all phases of instruction including planning, implementation and reflection, the Demonstration Lesson Cycle is a two-day process. The Carnegie Learning Master Math Practitioners will:

- Observe the class dynamics in the participating teacher's classroom during the participating class period, prior to the Demonstration Lesson
- Plan with the participating teacher, prior to the Demonstration Lesson
- Deliver up to two different Demonstration Lessons; either alone or co-taught with the participating teacher
- Invite other teachers and administrators to observe the Demonstration Lesson
- Debrief the delivery with the participating teacher, observing teachers and administrators

CUSTOM IMPLEMENTATION FIDELITY WORKSHOP

Up to 25 participants

Carnegie Learning's Master Math Practitioners will partner with districts and schools to create unique professional learning opportunities tailored to their specific needs in order to ensure high-quality Carnegie Learning implementations. Some examples of Custom Implementation Fidelity Workshops include:

- Unit/Chapter Preview Sessions
- Planning and Pacing: Making the Most of Every Instructional Minute
- Creating and Sustaining a Collaborative Classroom
- The Power of a Question Mark: Encouraging Accountable Student Talk
- Using Data to Inform Instruction: Getting the Most from Teacher's Toolkit Reports

LIVE, ONLINE TRAINING

2-hour sessions, recommended 2–8 participants

Live, Online Training is designed for software-only implementations and is an alternative to on-site workshops. These sessions are delivered by a live facilitator and scheduled based on the district's needs. In order to accelerate the successful use of the MATHia Software, a series of Live, Online Trainings are recommended for new users. Sample 4-Session Series:

- Session 1: Introduction to MATHia
- Session 2: Introduction to the Teacher's Toolkit
- Session 3: Data and Reports
- Session 4: Facilitating MATHia in Your Classroom

DISTRICT-WIDE ADVANCED EDUCATOR (BUILDING CAPACITY) WORKSHOP

4-day workshop, up to 20 participants

This implementation and instructional specialty training is for district math coaches, math leaders, lead teachers, and coordinators who will be supporting Carnegie Learning curriculum implementations. It is recommended in years two or three of implementations. Upon completion of the course, the selected district or school staff members will be endorsed to monitor the fidelity of Carnegie Learning implementations and to support classroom teachers with research-based teaching strategies within their district.

NATIONAL ONLINE INITIAL IMPLEMENTATION COURSE

Individual teacher registration or school registration

This course supports NEW Carnegie Learning teachers as they work online at their own pace. Through videos, readings, discussion boards, assignments, and quizzes, teachers will learn about getting started and maintaining fidelity with Carnegie Learning resources. Registered participants may begin the course as soon as they are ready and have access to the course for one year.

Visit the following links to view full course outlines:

- Blended (MATHia and Text): www.carnegielearning.com/National-Course-Blended
- Textbook Only: www.carnegielearning.com/National-Course-Textbook
- MATHia Only: www.carnegielearning.com/National-Course-MATHia

LEADERSHIP WORKSHOP

Up to 25 leaders

This workshop is designed for building and district leaders who will be supporting educators implementing the Carnegie Learning curricula. Participants will receive an overview of the tools and strategies needed to monitor and sustain an effective implementation.

STATUS MEETINGS

Status Meetings are the primary communication framework for data-driven decision making across key stakeholders. These stakeholders, including school, district, and Carnegie Learning personnel, make up the partnership team. During Status Meetings, the partnership team will review data from Teacher's Toolkit reports as well as observation summary reports and agree to implement recommendations aligned to a theory of action. Additionally, during this time, goals and benchmarks may also be revised and amended to reflect the goals of the partnership team.

MyPL

MyPL is an interactive library of video content designed to provide math educators with three things:

- Just-in-time support as they implement Carnegie Learning solutions
- A plethora of tips on classroom strategies at the moment they need them
- An overarching feeling that they always have real Carnegie Learning experts in their corner

All content is curated by our Master Math Practitioners, which include experts from Professional Learning (MSP's), Instructional Design, Research, and even some of our master classroom teachers.

Content and Pedagogical Support

Partnering with schools and districts to shift the culture of mathematics and reach their student achievement goals.

CUSTOM TEACHER WORKSHOPS

Up to 25 participants

Carnegie Learning Master Math Practitioners will partner with districts and schools to create unique professional learning opportunities, tailored to their specific needs, in order to achieve high-quality mathematics instruction. Some examples of custom workshop content include:

- Keys to Teacher Effectiveness
- Creating a Collaborative Classroom
- Implementing the Standards for Mathematical Practice
- The Tech-Savvy Teacher
- Developing Growth Mindset Students
- Formative Assessment Strategies
- Preparing Students for Rigorous Assessments
- Differentiation for Special Populations

IN-CLASSROOM SUPPORT

Limited to 4–6 teachers per day

In-Classroom Support takes place within the classroom and provides side-by-side coaching from the Carnegie Learning Master Math Practitioners. Carnegie Learning Master Math Practitioners intentionally build relationships with teachers and leaders by offering ongoing support based on school/district improvement goals, with the common end goal of helping students achieve success in mathematics. During the coaching process, Master Math Practitioners will:

- Pre-conference, observe, and post-conference with teachers
- Support the implementation of best practices in the mathematics classroom
- Provide support and recommendations related to content and pedagogy
- Assist schools in monitoring and maximizing a constant stream of data specific to individual classrooms and individual students



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LONG + LIVE + MATH ACADEMIES

5-day workshop, up to 25 participants

The Carnegie Learning LONG + LIVE + Math Academies are intensive professional development workshops for K-12 educators that are designed to expand teachers' understanding of mathematical content and pedagogy aligned to NCTM's Principles to Actions: Ensuring Mathematics Success for All (2014). There are three main elements to the Carnegie Learning LONG + LIVE + Math Academies:

- **Grade Appropriate and Stretch Content:** Carnegie Learning LLM Academies focus on implementing grade-appropriate content through coherent mathematics within the grade span and stretch content to help teachers make connections to future mathematics concepts (*Lovin and Van de Walle, 2006*).
- **Heightened Awareness of Teaching Practices:** Carnegie Learning's workshops are designed to facilitate teachers' meta-cognitive reflection on their own teaching practice and provide access points for them to adjust their instructional practices as they learn new strategies.
- **Problem Solving in a Learner-Centered Classroom:** This is at the core of Carnegie Learning's pedagogical approach to mathematics instruction. Educators have the opportunity to experience learning as students would, actively engaging in discourse and productive struggle with their peers around the math (*NCTM Principles to Action, 2014*).

Math Academy	Big Ideas	Grade Band
Early Number Concepts	<ul style="list-style-type: none"> Investigate characteristics of the base-ten number system Use physical models to explore number relationships Develop number sense through number construction and deconstruction Expand the base-ten number system to include very small and very large numbers Use models to represent operations with whole numbers Explore and model integers 	K-3
Exploring Measurement	<ul style="list-style-type: none"> Build and use tools to understand, draw, and measure angles Explore non-standard and standard measures for length, weight, capacity, perimeter, and area Estimate measures and determine appropriate units for attributes Explore children's books used to enhance student understanding of measurement 	K-5
Early Fraction Concepts	<ul style="list-style-type: none"> Investigate multiple representations of fractions Develop a conceptual understanding of fractions as equal parts of a whole Compare and order fractions and explore equivalent fractions Determine fractional representations given parts of the whole Use benchmark fractions and models of fractions to solve problems 	K-5
Fraction Sense and Operations	<ul style="list-style-type: none"> Investigate multiple representations of fractions Explore fractions as division Explore and model fractions greater than 1 Model operations with fractions 	K-5
Decimal Sense and Operations	<ul style="list-style-type: none"> Write, compare, and order decimals and decimal representations Estimate and operate with decimals using models and making connections to fraction operations Compare and identify equivalent forms of percents, fractions, and decimals Estimate, create models for and calculate values in real-world percent applications 	4-8
Geometric Thinking	<ul style="list-style-type: none"> Sort shapes to define attributes Complete and describe basic geometric constructions using a variety of tools Investigate quadrilaterals Discover the Pythagorean Theorem Perform transformations in a variety of ways Construct nest nets and model geometric solids Use manipulatives and technology to derive various formulas 	6-8
Proportional Reasoning	<ul style="list-style-type: none"> Distinguish between fractions and ratios Compare ratios and solve proportions Compare proportional and non-proportional relationships Explore a variety of informal strategies for examining proportional relationships 	6-8
Algebraic Thinking	<ul style="list-style-type: none"> Engage in meaningful use of symbols to merge arithmetic and algebraic thinking Investigate patterns to create generalizations Model and solve contextualized problems using various algebraic representations Use mathematical models to explore/analyze linear and non-linear relationships 	6-8
Exploring the Structure of Functions	<ul style="list-style-type: none"> Define functions and their characteristics Explore and analyze the multiple representations of function families Understand the advantages of various algebraic and graphical forms of functions Understand how new functions are built from other functions graphically and algebraically Understand composition of functions and transformations of functions from a graphical perspective 	8-12

Math Academy	Big Ideas	Grade Band
Statistics and Probability	<ul style="list-style-type: none"> Differentiate mathematical and statistical reasoning Investigate probability, informally and formally, and conduct simulations Compare data through displays and measures of center and spread Explore quantitative bivariate data and best fit curves Explore categorical bivariate data through frequency tables Design surveys and experiments 	6–8, 8–12
Transitioning to NEW State Standards	<ul style="list-style-type: none"> Deepen understanding of how to implement student-centered classrooms and applying practice and content standards into lessons Analyze exemplary, research-based, standards-focused tasks for rigor Build teacher capacity for developing their own rigorous tasks Discuss and model best practice instructional strategies to support state-wide standards implementation 	K–12
Custom Math Academy	Carnegie Learning’s Master Math Practitioners will work with school/district leadership to design a custom Math Academy to meet the specific needs of teachers.	ANY

Fostering a Learning by Doing® environment is one of the hallmarks of Carnegie Learning LLM Academies. The benefits of incorporating this principle into our workshop design include:

- Participants are active learners.
- Participants build a deep conceptual understanding of the mathematics content by solving hands-on, high-level cognitive demand tasks.
- Participants engage in a wide-variety of instructional strategies and make connections to their own classroom practice.
- Participants leave with an increased level of confidence in delivering grade-level content.



Leadership and Math Coaches Support

Supporting leaders in transforming math learning by identifying, creating, implementing, and refining the practices that sustain innovative, student-centered math instruction.

DESIGN THINKING WORKSHOP

Up to 15 participants

Design Thinking is a human-focused, innovative design process for problem solving. Design Thinkers are encouraged to identify needs through empathy and generate creative possibilities. The action-oriented process develops a culture of prototyping dependent on feedback for improvement. Participants will:

- Engage in multiple hands-on design challenges
- Understand the phases of the design process
- Apply the process to address a personal need or concern
- Determine how Design Thinking could be applied in their daily work

Who should attend?

- Teams or individuals who are interested in learning about the Design Thinking process
- Those who are tasked with problem solving and are looking for new approaches to finding solutions

What are the benefits of this workshop?

- Helps people jump into ambiguous challenges with energy, excitement and focus
- Builds confidence and optimism
- Empowers educators to be the drivers of change

MATH PROGRAM ASSESSMENT

Our team of Master Math Practitioners have hundreds of years of experience in math classrooms across the country. Our team of experts will fully execute or partner with a district team in executing a comprehensive mathematics program assessment across the district. Math program assessments may include:

- Initial pre-planning call
- District team calibration workshop
- Rigorous classroom walk-throughs with research-based rubric
- Instructional material, curriculum, and assessment review
- Student, Teacher, Leader, and Parent questionnaires
- Comprehensive final report
- Closing status meeting

CUSTOM COACHES CAPACITY BUILDING

Up to 25 participants

Carnegie Learning Master Math Practitioners will partner with schools/districts to provide support in building the capacity of district and building level math coaches by:

- Working side-by-side with coaches as they support teachers by modeling, shadowing, and reflecting
- Designing custom professional learning workshops to be delivered by school/district math coaches

Providing math coaches with instruction on re-delivering the custom workshops to teachers, equipping them with all of the skills needed to ensure successful workshops.

DEMO COACHING CYCLE

Recommended that this comes before Meta-Coaching

This modeling process involves shadowing the Master Math Practitioner as they demonstrate the coaching cycle with teachers. In order to provide opportunities for observation and reflection, Master Math Practitioners will model in-classroom support and coaching with teachers alongside district and campus math coaches. These shadowing opportunities focus primarily on demonstrating the skills of building relationships with teachers and leaders, the coaching cycle, planning and follow up.



META-COACHING

Recommended that this follows the Demo Coaching Cycle

This modeling process, usually following the Demo Coaching Cycle, engages coaches in the gradual release process by putting the district math coach in the drivers' seat with a Master Math Practitioner close by. In order to give each math coach an opportunity to practice with feedback, Master Math Practitioners will engage in a coaching cycle with the district math coach around their coaching cycle with a teacher (meta-coaching).

- Master Math Practitioner has a planning conversation with the math coach
- Master Math Practitioner observes the math coach and collects data
- Coach has a planning conversation with teacher
- Coach observes the teacher and collects data
- Coach has a reflecting conversation with teacher
- Master Math Practitioner has a reflecting conversation with math coach

MATH COACHES WORKSHOP

Up to 25 participants

This workshop equips math coaches with the knowledge and practices they need to be effective in supporting teachers in the math classroom. Participating math coaches will:

- Identify key attributes of an effective math coach and create a unified vision for their work
- Understand the difference between coaching and consulting and the purposes for each
- Experience the coaching cycle; planning, observing, and reflecting
- Explore various methods for collecting data during the coaching cycle
- Acquire strategies for building rapport with teachers
- Develop effective questions to support teacher planning and reflecting
- Establish a plan for communicating the work and teacher growth with administrators and other stakeholders

INSTRUCTIONAL LEADERSHIP WALKTHROUGHS

Master Math Practitioners work in partnership with a school/district to support Instructional Leadership as they look for critical components of a best practices mathematics classroom. In an effort to model all phases of instructional feedback including pre-conference, observation, and debrief, the Leadership Walkthrough is a 3-hour process. The Master Math Practitioner will:

- Strategically select 2–3 classrooms for observation
- Meet with key instructional leaders prior to observation to norm language and establish framework
- Conduct observations
- Debrief with instructional leaders, modeling coaching conversations and examples of constructive feedback and next steps in moving instruction toward a collaborative model

Mathematics Institutes

Tailored, multi-day experiences for K–12 teachers across a district, region, or nationally.

DISTRICT AND REGIONAL INSTITUTES

A Carnegie Learning mathematics institute provides rigorous, flexible, hands-on professional learning for the districts' mathematics teachers with a focus on content, best practices, and instructional strategies. Over the course of a 3-, 4-, or 5-day week, participants will experience a variety of engaging keynotes and interactive workshop sessions tailored to the needs of the urban secondary math teacher. Services provided by Carnegie Learning may include:

- Preplanning
 - Venue
 - Marketing
 - Keynotes
- Schedule and Logistics
 - Breakout sessions and matrix
 - Materials and materials development
 - Giveaways
 - Staffing
- Registration
 - Attendee registration
 - Registration reporting
 - Attendee rostering
 - Signage and registration materials
 - On-site registration management
 - On-site registration staffing



LONG + LIVE + MATH: THE NATIONAL INSTITUTE

*General attendee inclusive registration**

*Advanced Educator inclusive registration***

This event isn't like any other education conference you've attended. Attendees will leave refreshed, excited, energized, and equipped to make a difference. Over the course of the 4 day institute we bring together the smartest, most passionate educators and leaders to share insights and strategies around a common goal: to help every student reach their full potential in mathematics. LONG + LIVE + MATH is about transformation and the educators like you who are making it happen every day.

General attendees will enjoy a series of engaging keynotes, participant-driven sessions, and a wide variety of breakout workshops tailored to all grade bands (K-12).

In addition, a New to Carnegie Learning track is offered for attendees who will be implementing Carnegie Learning text and/or software for the first time in the fall. Other concurrent breakout workshops address all levels of Carnegie Learning implementation from "new" to "advanced".

The Advanced Educator Workshop at TNI employ a rigorous training model geared toward lead math teachers, district math coaches, math leaders, and coordinators who will be supporting teachers using the Carnegie Learning resources in their districts. A minimum of one year's experience with Carnegie Learning resources in either a teaching or coaching capacity is required in order to participate in this session. Additional prerequisites may apply and will be emailed to registered participants approximately one month prior to the workshop. The workshop will provide the tools and strategies needed to prepare a stakeholder to successfully support the implementation of Carnegie Learning's research-based resources.

* Inclusive general registration includes three nights lodging at conference resort (room and tax), roundtrip travel (airfare or mileage), registration, conference materials, welcome reception, three breakfasts and two lunches.

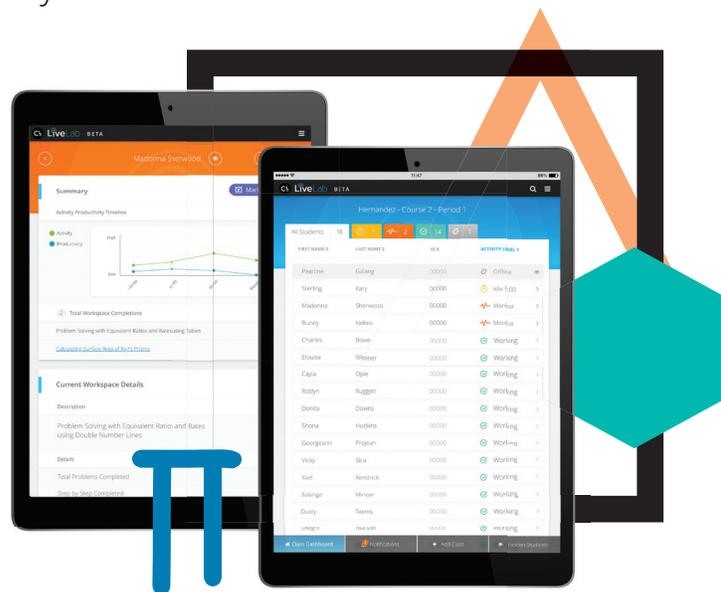
** Inclusive Advanced Educator registration includes five nights lodging at conference resort (room and tax), roundtrip travel (airfare or mileage), Advanced Educator registration, Advanced Educator conference materials, welcome reception, five breakfasts and five lunches.

Data-Driven Implementations

Ongoing support, data analysis and accountability for Carnegie Learning Implementations.

RESEARCH ANALYSIS

This program includes year-round planning, study, and execution of data analysis with the Carnegie Learning Research Team and our data evaluation experts. Researchers will analyze second-by-second student interactions with the software. Providing data analysis at the student, teacher and demographic levels allows Carnegie Learning to work with schools and districts in real-time to create individualized, data-driven learning plans for any subgroup — student, teacher or demographic — that exhibits learning deficiencies.



IMPLEMENTATION MANAGEMENT

Carnegie Learning's Implementation Management teams are committed to assisting with overall planning, organizing and managing of all resources relative to the Carnegie Learning math implementation. An Implementation Management partnership will help achieve projected goals for each school, including but not limited to:

- Organizing the school/district partnership team and scheduling/facilitating all status meetings
- Planning, execution and monitoring of a school/district theory of action plan
- Preparing communication materials for the purpose of documenting implementations
- Monitoring and adjusting strategy throughout the year
- Coordinating resources for deployment of all Professional Learning opportunities during the year
- Developing Action Plans as necessary based on outcomes of data analysis
- Training and administrative support in data-analysis and data-driven decision making

FULL-TIME CARNEGIE LEARNING IMPLEMENTATION MANAGER

Each full-time Implementation Manager may serve up to 25 schools (recommended 6–10)

A full-time Carnegie Learning Implementation Manager provides continuous, focused support to 6–12 teachers implementing Carnegie Learning resources, a link between the School Improvement team and school district, as well as building level administration. With a full-time Implementation Manager, the district will receive ongoing support from the first day of school to the last (less up to 4 weeks for ongoing company training). The Carnegie Learning Implementation Manager will work directly in schools, with teachers and administrators, for four days per week with one office day per week to plan, prepare, organize data and provide reports to school administrators.

FULL-TIME CARNEGIE LEARNING MATH SPECIALIST

Each full-time Math Specialist may serve up to 10 schools

A full-time Carnegie Learning Math Specialist is a Master Math Practitioner, well-versed in mathematics content and pedagogy providing continuous support to K–12 teachers in a specific school district. Math Specialists work directly with classroom teachers to foster a growth mindset and support the development of their content knowledge and teaching practice in order to improve learning in mathematics for all students throughout the school year.

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