

CLEARMath®

**CARNEGIE
LEARNING**

Middle and High School Math Solutions

Awaken the math person in every student.



6–12 Core Math Solution

Program Overview

Inspire your students to become active, insightful mathematical thinkers.

Our Middle and High School Math Solutions empower every learner to experience joy in math as they meet and surpass grade-level expectations and develop deep mathematical understanding. Teachers value student voice and facilitate the productive struggle students need to reach their fullest potential. With AI-driven and individualized adaptive learning, collaborative work, and rich math discussions, students grow to new heights and discover their inner mathematicians.



What are the Carnegie Learning Middle and High School Math Solutions?

The Carnegie Learning Middle and High School Math Solutions are core math solutions built for a diverse range of thinkers, leveraging the natural talents and assets every student brings to the classroom. This unique experience balances opportunities for students to learn collaboratively and individually, helping each student discover they've been a math person all along.

Students develop confidence as math thinkers and communicators through collaborative, teacher-facilitated learning experiences with MATHbook, in print and interactive digital formats.

When it's time to explore math independently, they dive into MATHia, the AI-driven, one-to-one online coaching software that adapts to individual student needs.

A complete suite of implementation guides, interactive lesson materials, videos, assessments, and data reports empowers teachers to meet every student where they are in their math journey.



ACTIVITY 1

MATHia CONNECTION

- Exploring Linear Inequalities



Linear Inequalities in Two Variables

Coach Purvis is analyzing the scoring patterns of players on his basketball team. Bena is averaging 20 points per game from scoring on two-point and three-point shots.

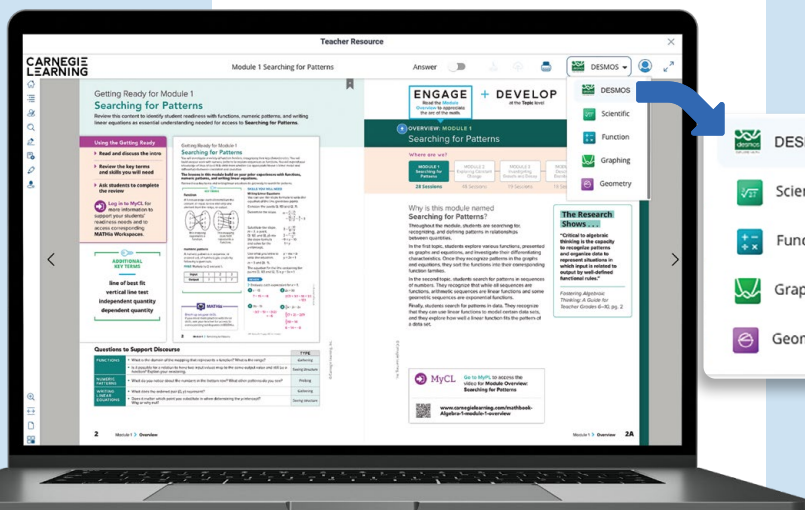
- Consider the situation.

Ⓐ If she scores 6 two-point shots and 2 three-point shots, will Bena meet her points-per-game average?

- HABITS OF MIND**
- Model with mathematics.
 - Use appropriate tools strategically.

Intentional design for intentional instruction

Get ready for a seamless teaching and learning experience in one course. MATHbook and MATHia work together, giving teachers the confidence to meet all their planning and instructional needs. They no longer have to worry about the challenge of matching materials or cobbling together an instructional schedule that makes sense. MATHbook and MATHia work in sync to empower students with the perfect union of learning experiences: time to talk about math and collaborate and an opportunity to learn at their own pace.



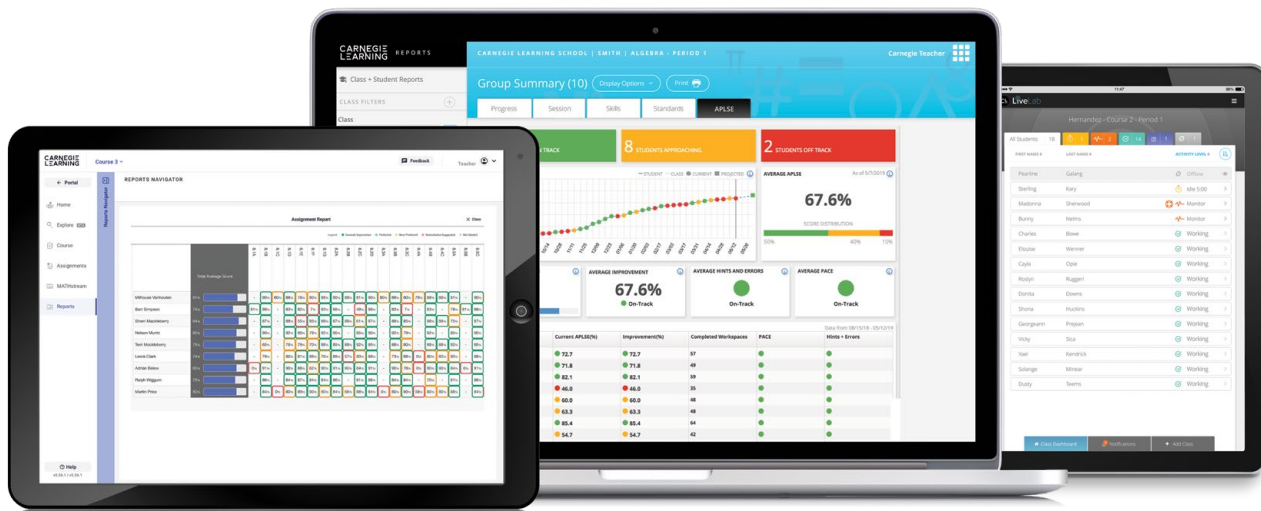
- DESMOS
- Scientific
- Function
- Graphing
- Geometry

Seamlessly integrate Desmos tools and MATHia software into teaching and learning through the Clear Learning Center.

Today's data drives tomorrow's success

Help create the next generation of math thinkers by knowing where your students are and never losing sight of where they're headed. Teachers get reliable insights into student learning with the comprehensive combination of MATHbook and MATHia.

Get unprecedented insights into students' current needs, plus predictive measures on their future performance, with MATHia's LiveLab and APLSE report. Teachers can feel confident adjusting instruction and student support minute-by-minute and skill-by-skill with insights backed by 30 years of research on how students learn.



As students complete interactive assignments, practice and exit tickets, teachers can view standards reports to monitor students progress and inform instructional decisions.

The Adaptive Personalized Learning Score (APLSE) Report is a predictive report that displays class and student progress over time.

LiveLab provides real-time insights on days when students use MATHia so you can focus your attention on students who need it the most.

And because nothing can replace teachers' direct observations, MATHbook also provides opportunities to gather insights into how your students learn as they collaborate and engage in productive math dialogue.

Questions to Support Discourse		TYPE
1	<ul style="list-style-type: none"> How did you decide which equation matched each scenario? Which phrases in the scenario helped you decide which equation to choose? How did you decide which equation matched each graph? 	Probing
	<ul style="list-style-type: none"> Do all the equations look the same? What is the same and different as you compare the equations? Do all the graphs look the same? What is the same and different as you compare the graphs? 	Seeing structure

Student Look-Fors

Whether students are demonstrating proficiencies related to these Habits of Mind:

- Model with mathematics.
- Use appropriate tools strategically.

Built-in questions for teachers support discourse learning and conversations that elicit evidence of student thinking and understanding.



Building math thinkers through productive struggle

MATHbook and MATHia intentionally prioritize keeping students in the zone of learning where they face challenges without feeling overwhelmed; where they develop the ability to persevere and think flexibly rather than just seek the correct solution.

MATHbook's write-in format allows students to create their own knowledge as they engage in making mistakes and learning from them. Teachers facilitate and encourage students to collaborate with the questioning and discourse supports provided in the Teacher's Implementation Guide.

When students are ready to learn individually, MATHia's adaptive AI platform serves up the exact amount of problems students need to hone their skills, with just-in-time and on-demand hints that keep them in the sweet spot of productive struggle.

“One of my students felt he was never good in math. But through a lot of productive struggle, he learned how to write an equation from a word problem and in multiple representations. It was a small success in the scheme of the school year, but to him, it was like he had climbed Mt. Everest. When he was finished, he felt like he could solve any problem in the world.”

-Jane Dehaan, Teacher and
Carnegie Learning Customer
Hickory Creek Middle School
Frankfurt, IL

Comprehensive assessment

As a regular part of the instructional cycle, ongoing formative assessment underlies the entire learning experience. Through various assessment opportunities, students develop the ability to evaluate themselves, make judgments about their performance, and improve over time. Teachers gain valuable data and insights throughout the learning experience to make real-time adjustments and plan next steps.

**CHECK
READINESS**



**MONITOR
LEARNING**

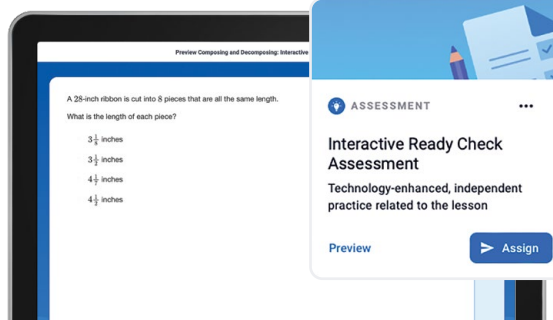


**MEASURE
PERFORMANCE**

Check Readiness

Collect and interpret data about student readiness at the Module level.

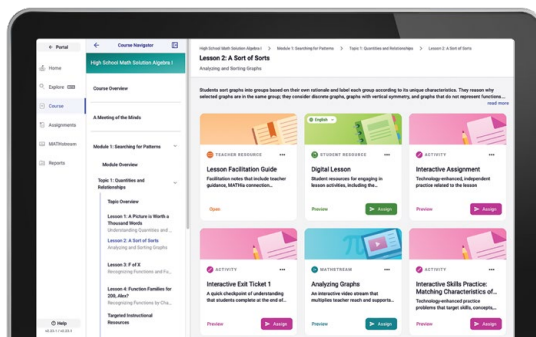
- MATHia ReadyCheck Assessments
- MATHbook's Getting Ready



Monitor Learning

Get insights to meet every student where they are while they learn collaboratively and individually.

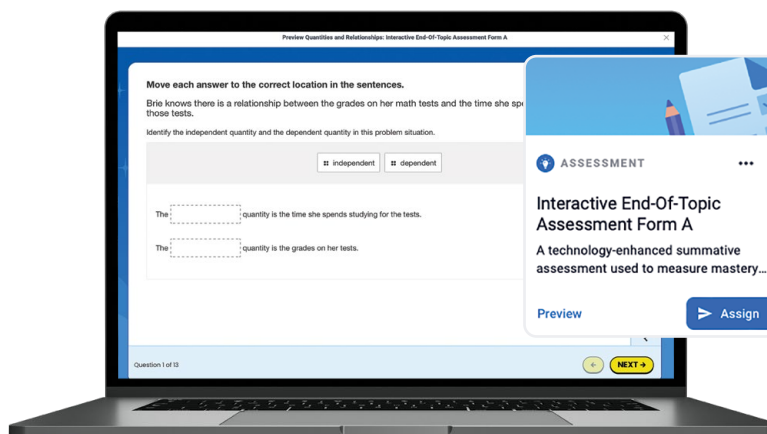
- Lesson Overviews
- Questions to Support Discourse
- MATHia LiveLab
- Interactive Assignments
- Interactive Skills Practice
- Interactive Exit Tickets



Measure Performance

Collect, interpret, and act on data about student progress.

- Progress monitoring in MATHia
- MATHbook summative interactive assessments
 - Pre-Test and Post-Test
 - End-of-Topic Test
 - Standardized Test
 - Performance Tasks



Components

Teacher Resources

Teacher Implementation Guide (TIG)

The TIG provides easy-to-implement resources for planning and point-of-use facilitation.

- Module and Topic Overviews
- Lesson Resources
 - Step-by-step guidance to support facilitation and deepen understanding
 - Embedded supports
 - Differentiation Strategies
 - Common Misconceptions and Student Look-fors
 - Questions to Support Discourse
 - Language Links to develop mathematical language
 - Multilingual learner support
 - Introductory lesson to establish classroom culture
 - Skills Practice Book and answer key
 - Ongoing informal assessment support

Digital Resources

The Clear Learning Center provides access to resources for planning and implementation support.

- Digital Teacher Implementation Guide
 - Embedded videos to support implementation
 - Downloadable resources at point of use
 - Lesson presentation slides
- Practice (PDF to download or assign digitally)
 - Skills Practice
 - Mixed Practice
- Assessments (PDF to download or assign digitally)
 - Getting Ready
 - Topic Pre- and Post-Tests
 - End of Topic Tests
 - Standardized Test Questions
 - Performance Tasks
- Autoscored Practice and Assessments
 - ReadyCheck Assessments
 - Interactive Assignments
 - Interactive Skills Practice
 - Interactive Exit Tickets
 - Interactive End-of-Topic Assessments
- MATHia personalized instruction
- LiveLab real-time student data
- MATHstream adaptive, interactive instructional videos*
- Class and student-level reports
 - Adaptive Personalized Learning Score (APLSE) Report
 - Progress Report
 - Session Report
 - Skills Report
 - Standards Report

*Optional add-on

†Available in English and Spanish

Student Resources†

MATHbook

A consumable textbook for learning and self-reflection.

- Lessons activate prior knowledge
- Minds-on activities drive student ownership of learning
- Formative assessments allow students to demonstrate their understanding
- Assignments for practice

Skills Practice Book

A consumable workbook with additional practice for each lesson.

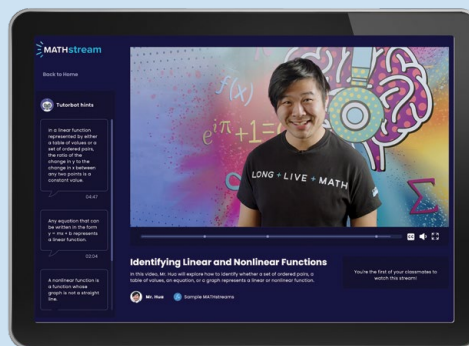
Digital Resources

The Clear Learning Center provides students and families with access to digital resources for learning, practice, and assessment.

- Interactive MATHbook
- Interactive Assignments
- Interactive Skills Practice
- Interactive Assessment
- MATHia: AI-driven, one-to-one online coaching software that adapts to meet individual student needs.
 - Step-by-step instruction for concept development and skills mastery
 - On-demand hints support student agency
 - Just-in-time hints provide personalized intervention

Explore the full solution here:

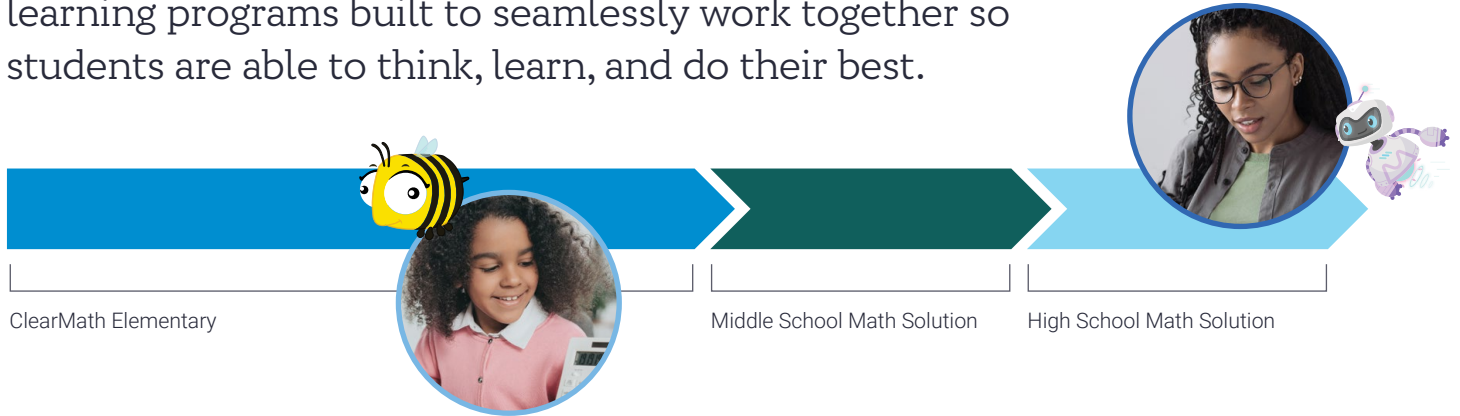
- **Middle School**
www.carnegielearning.com/msms
- **High School**
www.carnegielearning.com/hsms



◀ **MATHstream*** is an adaptive, interactive video streaming program where certified teachers deliver targeted instruction.

We're all in on math education

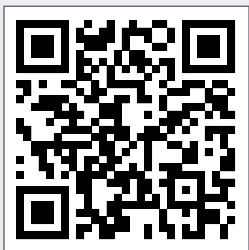
Carnegie Learning provides K–12 core and supplemental math solutions and out-of-this-world professional learning programs built to seamlessly work together so students are able to think, learn, and do their best.



How do we know that every student is a math person?

We've got 25 years of experience as the leading provider of research-based math solutions—proven to deliver up to 2x performance improvement on standardized tests—and a team of cognitive and computer scientists who are dedicated to tirelessly finding new and better ways to support teachers and students.

That's how we know every student is a math person.



Continue your exploration here:

www.carnegielearning.com/math ▶



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