Program Description

InsightMath

Our Vision

At MIND Education, our mission is to ensure all students are mathematically equipped to solve the world's most challenging problems.

For too many students, mathematics remains a barrier rather than a gateway. Often, they are labeled—or label themselves—as capable or incapable of mastering math, a perception that shapes their educational journey and limits their potential. To reshape this narrative, MIND Education's interdisciplinary team of neuroscientists, mathematicians, and math educators has developed InsightMath, a K-6 core mathematics program designed to help all students become mathematical thinkers.

InsightMath builds on the same neuroscience foundation that has underpinned MIND's ST Math games for nearly 30 years. This approach harnesses the brain's natural learning processes, engaging students in a perception-action cycle that constructs, reinforces, and refines their mathematical understanding through immersive, thought-provoking experiences.

Students engage with math in print, digital, and hands-on ways every day supporting a flexible, blended instructional model that adapts to diverse classroom needs.

MIND EDUCATION

Asset-Based Approach

In education, we spend a lot of time and energy focusing on deficits. A deficit lens focuses on identifying the gaps and problems students have and focusing on "fixing" those areas. We amplify messages that highlight "What's wrong with them?" instead of "What is right with them?" This is problematic because focusing on weaknesses doesn't develop the inherent brilliance and inherent strengths that student has. An asset-based approach focuses on identifying and leveraging the strengths of students, thus providing opportunities to let their brilliance shine. We need the brilliance of all students.

Big Ideas Drive Design

InsightMath integrates standards across domains and clusters. Each unit begins with a big idea, followed by a few essential understandings that build to the big idea. At all points in the design process, consideration has been given as to whether the mathematical understandings, lesson objectives, lesson activities, student reflection, and assessments contribute toward a focus on the big idea and coherence within and across grade levels.

Reaching All Learners

Our mission is to mathematically equip all students. We believe that the best way to equip them is to empower them; to position them to be authors of their own learning. Our curriculum is designed to give them voice in the learning journey and support them with the tools and strategies they need to help them grow as effective communicators.

We redefine mathematical understanding by centering students' voices, ideas, and relationships with math. Our approach cultivates a classroom of curiosity and challenge, enabling teachers and students to recognize their unique mathematical thinking. By honoring diverse strategies and sense-making, we counter deficit narratives, strengthen conceptual understanding, and affirm students' identities as mathematicians.

English Learners (EL)

English Learners (EL) bring a rich diversity of languages, cultures, and backgrounds, requiring tailored support beyond a one-size-fits-all model. This extends to English-only students needing help accessing academic discourse.

Instructional strategies include:

1. Meaningful engagement with content through classroom dialogue;
2. Support for text structures essential to math study;
3. Development of foundational literacy skills—speaking, listening, reading, and writing.
4. Language is the bridge to mathematical meaning, and we ensure all students can fully participate by supporting both receptive and expressive skills.

Special Education Students

Special education students deserve rigorous, grade-level content paired with targeted supports. Our lessons feature intentionally sequenced activities and teacher guidance to scaffold deep conceptual understanding.

Supports address:

- Barriers to participation, with strategies to enhance accessibility;
- Prerequisite skills and concepts, offering pathways for mastery.
- This design ensures equitable access to meaningful learning.

Gifted and Talented Students

For gifted and high-achieving students, we prioritize depth over acceleration to prevent misconceptions. Grounded in neuroscience, our curriculum builds robust schema through extension opportunities within grade-level standards. These activities stretch thinking meaningfully, avoiding mere repetition, and align with each school's acceleration process.

Family Guide

Our family guide strengthens home-school collaboration with:

- Resources co-designed by families, highlighting student competencies;
- Practical examples and facilitation questions to deepen understanding;
- Additional support for at-home learning.

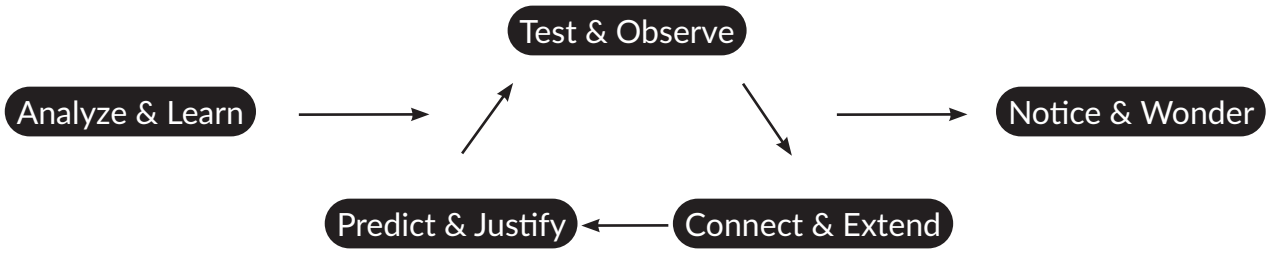
This equips families to engage confidently in their child's math journey.

InsightMath Instructional Design

In addition to big ideas and essential understandings driving its design, InsightMath is grounded in the same neuroscience foundation that MIND's ST Math games have been built on. ST Math games leverage the brain's innate spatial-temporal reasoning ability to solve mathematical problems. Students can "see" the mathematics and build a deep conceptual understanding of the concepts.

The MIND Education Problem-Solving Process underpins all instruction, guiding students through purposeful questioning to deepen their thinking. Effective facilitators use questions not as a checklist, but as a means to foster understanding and schema-building. This approach engages students in reflecting on their own reasoning and that of their peers, emphasizing the "why" behind each question.

The process unfolds in five stages:



InsightMath Program Structure

Daily Classroom Lessons

Lessons engage students in academic discourse through rich tasks, blending online and offline activities with manipulatives. Students explore, test, and refine strategies using visual models and a structured problem-solving approach. This authentic learning experience extends and connects mathematical schemas, fostering identity and agency as thinkers. Instructional strategies position students as doers (applying and analyzing), knowers (understanding and revising), and sense-makers (connecting and reinforcing) of mathematics.

Game-Based Puzzles for Exploration and Practice

Personalized instruction unfolds through game-based puzzles, leveraging our patented Spatial-Temporal (ST) models. These provide equitable access via challenging, non-routine problems and formative feedback. Integrated into lessons, ST Math games tap into spatial-temporal reasoning, enabling students to "see" mathematics and build conceptual understanding with minimal initial language barriers.

Big Idea Investigations

InsightMath tackles the Big Ideas head on with a Big Idea Investigation at the start of every unit. These investigations are highly visual and conceptual, allowing students to engage with and explore the schema and concepts of every big idea before learning the mathematical procedures, language and symbols in the unit. In many cases, the Big Ideas Investigations are open-ended type tasks, with intriguing questions, like "How can a half be bigger than a whole?" which allow students to express their ideas and thinking as they engage their curiosity and grapple with these new ideas for the first time.

Projects

InsightMath includes 5-6 projects in each grade level that can be flexibly implemented by teachers at any appropriate time during the school year. The projects focus heavily on interweaving mathematics with the Environmental Principles and give students a chance to make connections between the classroom, and the world in which they live

Unit 0

Unit 0 launches each grade level, immersing teachers and students in InsightMath's philosophy, components, and strategies. Emphasizing student discourse, asset-focused teaching, and MIND's neuroscience foundation, it includes five lessons to start the year, plus additional optional lessons (approximately five) for flexible use based on need.

Teacher Experience

Educators are well-equipped with tools and support to deliver impactful mathematics instruction. InsightMath blends technology and guidance, ensuring lessons are manageable and meaningful. Through online resources, professional learning, and in-lesson strategies, we support teachers at every level—unit, cluster, and lesson—fostering a student-centered classroom.

- **Robust Digital Teacher Guide Makes Daily Instruction Easy.** Online resources include detailed lesson notes, standards coverage, assessments, and more. These tools streamline planning and execution, enabling teachers to focus on student engagement and learning, with confidence.
- **Content and Professional Learning Support at the Unit, Cluster, and Lesson Level**. InsightMath offers content resources and professional learning—workshops, webinars, and on-demand modules—across unit, cluster, and lesson levels. This ensures teachers feel empowered to adapt lessons, meet diverse needs, and deliver standards-aligned instruction effectively.
- **In-Lesson Argumenteers**. Argumenteers are sample student submissions that spark discussion, ignite curiosity, and offer counterpoints. Teachers use them to facilitate dynamic exchanges, deepen understanding, and create an inclusive environment where diverse strategies enrich collective learning.

Assessments

- **Diagnostic Assessments**. Diagnostic assessments gauge students' foundational skills and knowledge at the start of each unit, identifying strengths and areas needing support. Paired with each question are suggested activities to build prerequisites or notes for teachers to track emerging skills, supported by an Assessment Guide.
- **Formative Assessment Opportunities**. Formative assessments enable teachers to observe and analyze student thinking, guiding discussions, providing feedback, and tailoring differentiation. Embedded throughout the program, targeted opportunities align with clusters and are highlighted within lessons. Daily "Look Fors" and Discourse Questions in Teacher Notes facilitate monitoring and support mathematical goals, complemented by anticipated solutions and question prompts. Formative Assessment Recording Logs offer a year-long tool for teachers.
- **Summative Assessments**. Unit summative assessments allow students to demonstrate mastery of key objectives, aligned to standards. Results highlight successes to celebrate and areas for further support, accompanied by an Assessment Guide.

Building Mathematical Thinkers

InsightMath represents a transformative approach to mathematics education, uniting neuroscience, access, and innovative design to empower every student as a mathematical thinker. From its rigorous, grade-level curriculum and dynamic problem-solving process to its robust teacher support and inclusive assessments, the program fosters deep understanding, positive identities, and lifelong learning. Grounded in MIND Education's expertise, InsightMath equips educators and students alike to tackle the world's challenges with confidence and creativity.