

MIND

Research Institute

We're scientifically proven, and the National Mathematics Advisory Panel validates the brain and learning research that MIND has used to craft its educational tools over the last decade.

MIND is ready to work with you, today. You don't have to wait for the next generation of products to integrate the NMP findings.

Ten Things You Need to Know About the Findings of the National Mathematics Advisory Panel.

1. The key to mathematics learning is a coherent progression of skills.
2. Key foundations for learning include facility with fractions, knowledge of the number line and an understanding of the importance of estimation.
3. Lessons in mathematics should simultaneously develop conceptual understanding, computational fluency and problem solving skills.
4. Student effort matters.
5. Spatial visualization helps students grasp the concept of a number.
6. Textbooks should not have distracting photos or language that detract from the mathematics lessons.
7. Formative assessment works.
8. Many children come to their first years of school unprepared. The level of math knowledge they bring to school affects their math schooling for years to come. Intervention programs are important in the early years to eliminate this gap.
9. Computational proficiency with whole number operations requires practice so that students develop automatic recall.
10. Programs that target social, affective and motivational factors in students can help math performance.

MIND Research Institute has mastered and has implemented for a decade the core tenets of the NMP.

1. To reinforce the progression and connection of skills, MIND's *Algebra Readiness* text strategically introduces, explains and connects concepts, procedures and problem solving skills into a solid, steady ramp of mathematical understanding and skill. MIND's innovative visual diagrams provide students with simple yet stable models and representations that don't break down as they progress through the curriculum. Unifying concepts of the number line and the concept of rate are used throughout the text to connect lessons.
2. Fractions, number line and estimation are at the heart of MIND's *ST Math* programs. Together, these types of problems make up close to 50% of MIND's Algebra Readiness supplemental program.
3. MIND's *ST Math* program layers conceptual understanding (a visual representation of the math problem), computational fluency (a high volume of practice through initially simple but increasingly difficult math problems) and problem solving skills (efficiently choosing a solution path to a multi-step problem) in every lesson.
4. Teachers who use MIND's *ST Math* with their students report that their students are more engaged with math and are more likely to stick with it. Instant feedback built into the technology motivates students to apply the extra effort necessary to succeed. "It keeps their attention, and then learning occurs," stated a teacher at Puente High School in Oxnard Union HSD, CA.
5. The "ST" in *ST Math* stands for spatial-temporal, a learning process based on 30 years of brain and learning research. *ST Math* uses instructional software that creates visual representations of the concepts behind the math, building on students' innate ability to understand concepts in this way. The *Algebra Readiness* textbook also uses clear visual diagrams to help students grasp concepts.
6. MIND's textbooks are designed to eliminate all distractions. Math lessons follow a clear progression from the top of the page to the bottom, and only include the key ideas necessary to learn a particular concept.
7. MIND has an animated and interactive feedback system that lets students know when they have answered correctly or incorrectly, and why. Teachers also have real-time access to this information, allowing them to monitor student progress.
8. MIND's educational tools require no prerequisite knowledge and can be the entry point to math learning. They are particularly effective in early intervention strategies, with students with little to no math background or experience, and for students with learning disabilities.
9. MIND's *ST Math* technology tools build in repeated opportunities for practice so that students only move on to the next lesson once they have mastered a skill. Students solve hundreds of problems before moving on to the next level of difficulty, ensuring automatic recall while maintaining interest and sustaining motivation.
10. MIND's unique spatial visualization and technology-based education tools motivate students through constant feedback and engaging lessons. *ST Math* reduces the effort required of students to identify the real math problem by using a simple and uncluttered interface. Students feel it is worthwhile to continue to work at the problem because they are given constant feedback and guidance on how to solve it.