



ST Math Frequently Asked Questions

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What is ST Math?

ST Math is a supplemental online learning program. Like much of our classroom instruction, ST Math builds deep conceptual understanding using visual models and problem solving. ST Math also incrementally transitions students from visual models to the abstract notation of numbers and symbols as they are ready.

As learners, students gain more understanding from thinking, trying, and revising their thinking than they do by being shown methods and copying them. Students may be able to repeat a procedure in class without truly understanding how and why it works. Then in later grades when work gets harder, their performance can break down if the deeper understanding was not solidified. ST Math lets students work through the “why” and see the “how” so that they can apply it to future content.

[Click here for more information about how ST Math works for students](#)

Does ST Math address our state standards?

ST Math addresses all Common Core Standards for Math at each grade level. Using ST Math reinforces classroom learning and provides each student with extra practice in all grade level content. While it may appear to be games without direct connection to content, each game is designed to visually explore how the math works for each of our state standards.

[Click here for more information on the connection to Common Core Standards](#)

How else can ST Math help our students succeed?

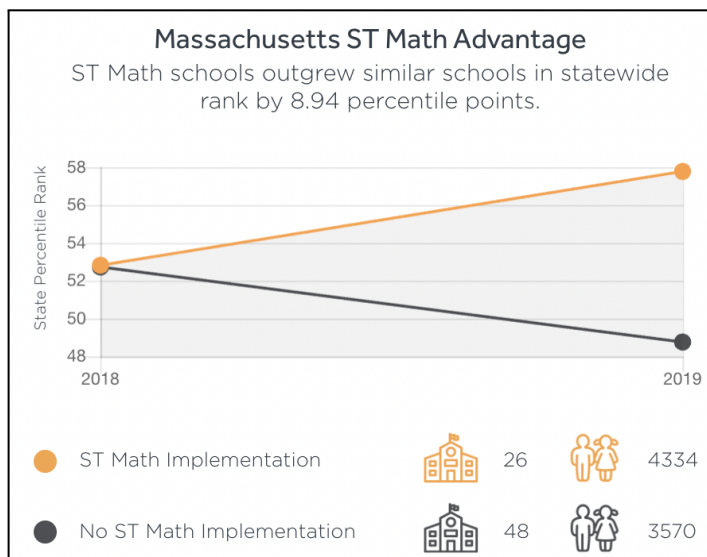
There has been lots of educational research on the importance of students developing characteristics such as perseverance, grit, positive mindset, etc. Teachers often wonder how to cultivate these qualities in children who may not possess them yet. Developing patience and perseverance when solving problems is a skill that can apply to many aspects of life, both in and out of school. ST Math provides an opportunity for students to try different approaches and to keep going until a solution is found.

[Click here for more parent resources on how ST Math can develop student's math minds](#)

Is there any proof that ST Math works?

Currently, ST Math has been adopted by more than 2,500 schools in 40 states serving more than 800,000 students. There have been over 100 studies done by third party companies to validate their claims of ST Math contributing to an increase in state test scores.

Spoiler alert: it works! Here is a basic graphic of how students in MA using ST Math outperformed students who were not:



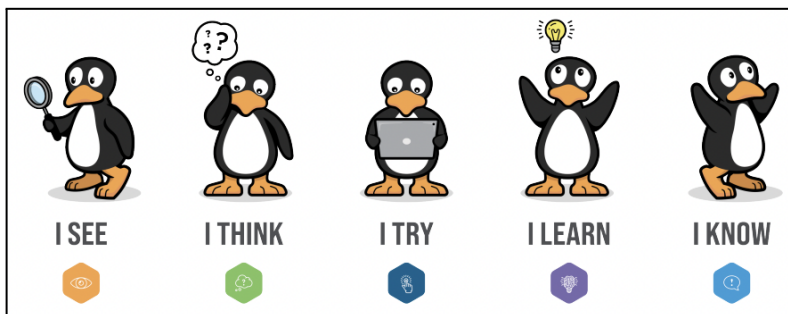
There is MUCH more about the research at these links:

[Click here for research by MIND Research Institute](#)

[Click here for research about MA schools that use ST Math](#)

What if my child gets stuck on an ST Math puzzle at home?

Sometimes students are not sure how to proceed with a puzzle. Rather than being a downfall of the program, that's the key to the ST magic! As an adult, what do you do when you come up against a problem that you are not sure how to solve? Do you wait for someone else to tell you what to do? In the working world, is that how you would want your employees to respond to adversity? Or would you prefer that they notice, think, try, learn from mistakes, grow in their understanding, and feel confident in their final solutions?



[Click here for a parent guide to using ST Math at home](#)

See the next page for guidance on parent questioning to help students who are stuck.

ST Math.



PROBLEM SOLVING PROCESS

When your students struggle with...

Getting Started

- What do you need to do to solve this problem?
- What do you know about this problem and what do you need to know?
- What question is this problem asking you to solve?
- How might you begin?

Identifying and Testing Strategies

- What is your strategy? Why is that the best strategy?
- What will happen if you click on _____?

Persevering

- Is there anything you learned from those earlier levels that can help you now?
- Is this like _____ that you did earlier? How is it the same? How is it different?
- What have you tried? What happened?
- What did you try that did not work? Why did it not work?
- What do you already know about (concept/problem)?

Learning from Feedback

- What did you learn from the feedback?
- What do you need to do next?
- What did you see that showed you the answer was wrong?
- Explain why your answer was correct or incorrect.
- How did the earlier problems/levels work?

Extending and Connecting

- Please explain it in a different way.
- Is there another way to solve this puzzle?
- Can you represent this puzzle symbolically?
- Show me how this will work on the next problem.
- Why did you _____?