A MULTI-DIMENSIONAL GROWTH MINDSET CURRICULUM

MidSchoolMath

A Perfect Score on **EdReports**

Core Curriculum™ receives the highest scores possible on the latest criteria*





27/27

*Based on the new criteria v1.

Remarkable

Recall

A math lesson built from memory alone

Megan LeBleu

talks how film changed her math classroom & 10,052 other math classrooms across the United States

A look at MSM's 'Training Camp for the Trainers'



Behind the scenes of our Spanish localization



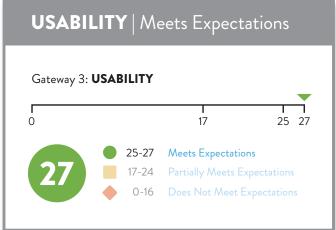
Core Curriculum™
by MidSchoolMath

The highest scores possible on the latest criteria

on EdReports*

*Based on the new criteria v1.5





A perfect score in every gateway

This is:

Core Curriculum TM by MidSchoolMath

In 2021, EdReports.org released their new criteria for math curriculum. MidSchoolMath not only met expectations in all three gateways, we received a perfect score. EdReports.org, an independent nonprofit organization, conducts formal reviews of instructional materials based on indicators of high-quality content determined by school districts across the country.



YOU KNOW Real Engagement When You See It

It begins with your core curriculum

After a decade of research into the mind of the math student, MidSchoolMath developed an unparalleled way to teach math. When you immerse students in situations where math makes sense in context, students naturally become curious. This gives students purpose and meaning to solve math problems.

You see it in the eyes of your students—a new level of engagement and authenticity in math education.

This is: Core Curriculum™

by MidSchoolMath



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ESSA Tier I Gold Standard Research available at: www.midschoolmath.com/research





Megan LeBleu talks how film changed her classroom and 10,052 math classrooms across the United States

MidSchoolMath's Director of Curriculum shares her journey from Mount Everest to Mars

By Alex Usatine, Chief Editor & Jen Lightwood, Co-Founder

t the beginning of her teaching career at Ernie Pyle Middle School in the South Valley of Albuquerque, Megan LeBleu sensed that her students needed more than what she was providing. With many speaking English as a second language, the text heavy curriculum was difficult for them to access. Over the years, she and her colleagues spent time outside of teaching hours trying to enhance lessons from the textbook to make them feel more fun and engaging to students that might not otherwise care about math. "A lot of times it was as simple as a YouTube video setting up the context of a problem," LeBleu noted. "One lesson talked about a bicycle race, and we knew our students might not have a concept of what that looked like. So we found a funny video about bicycle racing where there were a lot of crashes and weird things happening, just to get them interested in being in the room."

After learning about MidSchool-Math from the documentary *The Biggest Story Problem* and being invited to attend one of their first PDs, LeBleu was inspired to try creating curriculum from scratch based around a story that had inspired her.

MSM: When did you realize you

MSM: When did you realize you wanted to teach math?

Megan LeBleu: From an early age, like six or seven years old, I always played school where I was the teacher, and my stuffed animals were the students. And then throughout my education, I did really well in math. It was my favorite subject, partially because my favorite teacher growing up was my

middle school math teacher.

MSM: What were some of the challenges you faced as a teacher?

ML: I had a lot of students who didn't have the easiest family life. I found I had students who needed a lot of love and compassion while I was trying to teach them academic content. So, my colleagues and I worked really hard to try to make curriculum from the textbook feel engaging and enticing to students who might not otherwise care about it.

It just made sense in my mind because the narrative

and film images

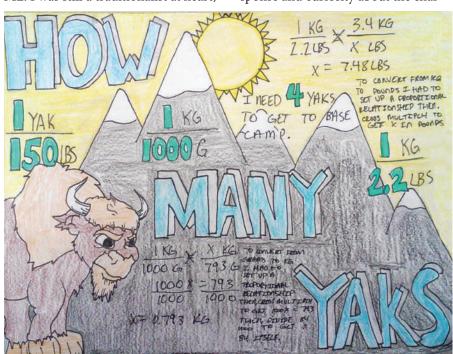
framed math in context.

MSM: Tell us about the lesson you built.

ML: I was still a traditionalist at heart,

but I was really intrigued by how MidSchoolMath teaches math lessons through a story structure, from immersion to resolution. So, I attended a professional development by Mid-SchoolMath and it totally changed my view of how math could and should be taught. It just made sense in my mind because the narrative and film images framed math in context, even though I never learned that way. I chose to build a lesson based around Mount Everest because it's a fascination of mine. We created a series of videos that starred a friend who had actually climbed Everest. The first math problem was: How many yaks do you need to climb the mountain? MSM: How did your students respond to a lesson filmed with a live actor?

ML: Compared to other curricula I used before, during Expedition Everest there really was a genuine response and curiosity about the char-





Left: LeBleu demonstrates a carabiner and rope that might be used to climb Mt. Everest. Right: A student reflection on one of the math problems within the Everest lesson.

acter and the story. Film helped bring Mount Everest into my classroom for my students to experience, and math just happened to be wrapped up in it. Film also widened the worldview of my students, geographically and culturally. MSM: Your students really connected to this place across the world.

ML: Just like movies on the big screen, powerful visuals can transport a viewer into a place and time. My students can tell you about yaks and the Khumbu ice fall. They were excited to virtually connect to climbers in the region. When one of several devastating earthquakes occurred during our *Expedition Everest* unit, my students and I raised money and donated it to a fund set up to help the families of the Sherpa.

MSM: And how did this impact your students learning the math?

ML: The first thing I noticed is that my students actually cared about the math. They wanted to know how many yaks they would need to climb Everest. They were excited to determine how many ladders they would need to make it through the Khumbu ice fall. I noticed their work became more careful and deliberate, and often included visuals. It so impacted how much they wanted to learn math that every day they would come in and ask: "Are we climb-

ing Everest today?"

MSM: And what did you do after Expedition Everest?

ML: I finished out the year, but I admit it was difficult to go back to the lessons in our textbooks, no matter how much we tried to enhance the math problems. And that's when I realized that as much as I loved teaching, I also loved building curriculum.

It was hard. Coming up with real life situations

where every single math standard could be applied is not an easy task.

MSM: So, you accepted a position to help MidSchoolMath build Core Curriculum™ for every middle school math standard the same way you approached Everest.

ML: When I created Everest, my colleague and I used an iPhone and a green sheet as a backdrop for filming and iMovie to put it together. When I joined MidSchoolMath, they had a full production team; with a cinematogra-

pher from the film industry along with professional writers, actors, artists, animators, and software engineers. The team really upped our production game, but in terms of developing an entire curriculum, it was hard. I mean, coming up with real life situations where every single math standard could be applied is not an easy task.

MSM: That's sort of what MidSchool-

MSM: That's sort of what MidSchool-Math is known for – real life application?

ML: Sure. I think that's one of our claims to fame. In Core Curriculum™ we created 272 short films using live actors to immerse students into a context where that math is purposeful and meaningful. There are serious stories such as the Cholera Outbreak of the 1800's, and more exciting stories like Escape from Mars, and funny stories like a group of goats that want a new pen. Film brings a story to life; and a story brings math to life in an authentic way, especially compared to a flat paper textbook with little to no context or humanity.

MSM: Why is immersing students into these scenarios so important in math class?

ML: Students always ask, "When am I ever going to use this?" The short movies involve students in the prob-

lem they are trying to solve, which becomes relevant because they want to know what happens in the story. I think it's because film as a medium for curriculum enables students to empathize with characters and potentially gives them more desire to engage in math class. What's also incredible is that students remember the stories and the math which is also great for teachers.

MSM: How so?

ML: For example, when a teacher is introducing a new lesson, they can refer to a past lesson to connect the math concepts for students. The power of film and stories as tools for retention and recall is incredibly evident as students reference the story and then recall the math, almost seamlessly. I think the film format helps students see purpose to the math in a concrete and tangible way.

MSM: And this is now having an impact across the nation?

ML: Through our conferences and our core curriculum, there are now 10,052 classrooms around the nation that have used our film and rich narrative story to teach math. That impact is so great that I can go into a classroom –

whether in Livonia, Michigan; Santa Fe, New Mexico; or Portland, Oregon – and a student can tell me the characters, the story, and the math in the lesson.

With Expedition Everest,
I think my students
got excited about it
because I was excited
about it.,

MSM: And what has the impact been on students?

ML: You can watch the video on the homepage of our website from a school in Kentucky and you'll see students remembering the names of lessons from a half year before and the math they learned in that lesson. I can't think of any other curriculum that would have achieved that result. MSM: Besides the film series, what other components are in Core Curriculum*?

ML: Our curriculum has simulation trainers for every lesson, where stu-

dents have the opportunity to see how the math works in context. We also have thousands of math questions in our adaptive test trainer, a print component, clicker quizzes, and milestone assessments.

MSM: How does MidSchoolMath compare to other math curricula?

ML: If you think about math class and math textbooks, Core Curriculum by MidSchoolMath looks nothing like the images that are conjured up in most people's minds. That's because we use film, we use live actors, we use technology. But the technology helps teachers facilitate discussions in their classroom instead of just having students on a device the whole time. We really do care about teachers and students as people, and we're trying to connect to the whole person during the learning process.

MSM: What advice would you give a teacher who is using a more traditional curriculum and wants to increase their students' engagement with the material?

ML: I would tell them to try incorporating elements of film and story into math problems and watch student engagement. With *Expedition Everest*, I also think my students got excited about it because I was excited about it. So don't be afraid to share what you are passionate about, because it allows your students to share more of themselves in your math classroom.

MSM: What has been the hardest and most rewarding part of your job?

ML: As a perfectionist at heart, it is very difficult for me to accept that things are never going to be perfect for every situation. That weighs on me heavily, because I know how hard teaching is. Yet, beyond hearing anecdotes and success stories from classrooms, we receive e-mails where teachers thank us for making our curriculum. I've also heard from teachers that our curriculum and our pedagogy has reinvigorated some who had been planning to retire. And they're so inspired that they want to give it a go with their students for another year, and that's especially gratifying.

Below: After viewing the Everest immersion video, LeBleu passes out the inventory lists students will need to complete before the expedition.





and print solution featuring an expansive lesson for every standard in grades 5-8. Com-

bining scripted video content, tailored interactive problems, and high quality printed workbooks that complement each of the online components, our curriculum streamlines lesson planning and engages students in a way not possible before. With this approach, Core Curriculum has some of the largest effect sizes across measured curricula.¹

1. Cooney, J.B., Laidlaw, J. (2019) A curriculum structure with potential for higher than average gains in middle school math

This is:

Core Curriculum Math

A multi-dimensional growth-mindset curriculum

When it comes to fixing 'the mid school math cliff,' where from 5th to 8th grade, U.S. students exhibit the largest decline in test scores in the world, breaking through fixed mindsets is foremost. Core Curriculum™ brings math to life through its visual and interactive multi-dimensional components.

With over 270 immersive films designed to create purpose for math, Core Curriculum™ includes lessons specifically designed to foster growth-mindset through student collaboration. The mindset where students believe that their ability in math is 'fixed' or permanent in nature is overcome as students learn new concepts not only from their teacher, but also from each other. Built with formative assessments that help teachers and students determine where and how to make improvements, and assignments that light up the mathematical part of the brain, Core Curriculum™ by MidSchoolMath is the antidote to students saying they are just "bad at math."

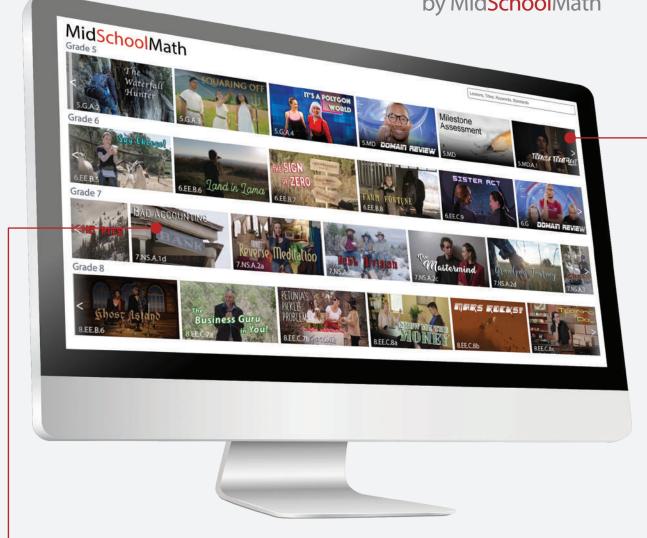
Take a **deep dive** into Core Curriculum's key **components** on the following pages

The Math Simulator™
Simulation Trainer
Teacher Instruction
Practice Printable
Clicker Quiz
Test Trainer Pro
Milestone Assessment
Progress Monitoring

The Math Simulator™

Part of Core Curriculum™

by MidSchoolMath



Real-life, visual hooks

Real-life means live actors—sets from the Old West to outer space to modern L.A.—and a 'problem' that isn't just math; it just requires math to solve it.

Professionally animated worked examples

As Jo Boaler says, "Visuals light up the mathematical part of the brain." So, we worked with professional animators and cinematographers to design, create, and deliver the strongest visual worked examples in the field.



A 3-part film series

for every standard in grades 5 through 8

With classroom discussion resulting in the highest effect sizes in learning, nothing will encourage your students to talk math more than film, with live actors, where the math makes sense in context.

Immersion

Every lesson starts with a story and a question



Data & Computation

Data is suspended until students grapple with need-to-know



Resolution

Math is solved in context to the story





Learning effects are **3x greater**

when we give students an opportunity to fail safely with

individualized visual feedback

Modeled on research from real flight simulators, the *Simulation Trainer* taps into one of the most powerful pedagogies possible. Like a flight simulator, a "sim" trainer contextualizes math in a coherent scenario that allows students to experience how the input (math answer) is directly related to the outcome. And it works. On randomized controlled trials supported by the National Science Foundation, the *Simulation Trainer* elicited learning effects 3 times greater than typical interventions.¹



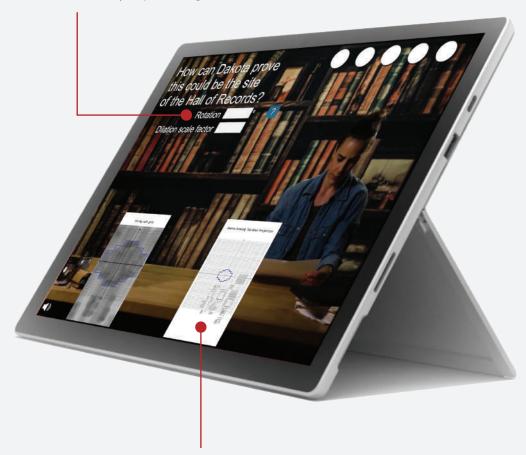
1. Cooney, J.B., Laidlaw, J. (2019) A curriculum structure with potential for higher than average gains in middle school math

Simulation Trainer

Part of **Core Curriculum**™
by MidSchoolMath

Varied inputs

Answers are not just multiple choice. From drawing a 'line of best fit' to building equations, *Simulation Trainer* has almost every input imaginable.



Individualized problems & feedback

Every problem is a remarkable feat of design, emphasizing the interconnectedness of mathematics in which both the problem *and* the solution are individualized.

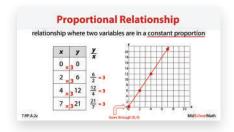
Failing safely

Neuroscience research shows that the biggest single determinant factor in growth mindset development is the ability to fail safely. The *Simulation Trainer* does exactly that.



Instruction with a **visual connection** doubles the learning effects of traditional lecture

Guide your students through a PowerPoint version of a lesson, or play the video version with Mid-SchoolMath Instructor, Ryen Jackson. In the class-room or remotely, our *Teacher Instruction* product offers you a versatile tool for providing clear visual explanations for each math standard, grades 5 to 8. Both versions are also available in Spanish.



PowerPoint version for synchronous teaching

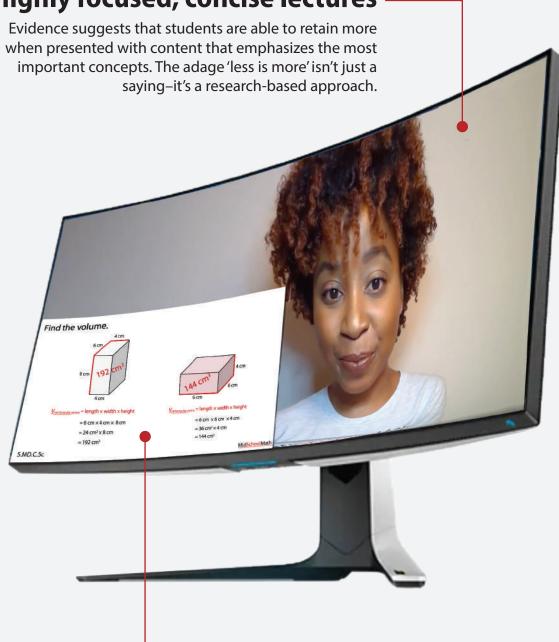


Video version for asynchronous teaching

Teacher Instruction

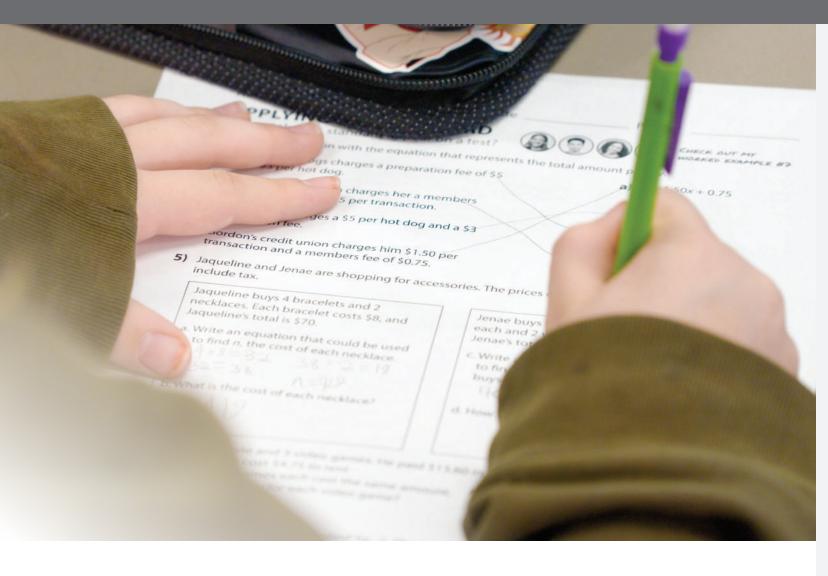
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Highly focused, concise lectures



Exceptional animation

You and your students will love seeing math concepts come alive with visual representations in front of your eyes.



The most advanced technologies in the world cannot replace the importance of an exceptionally written math problem

With every math problem created by a teacher with years of classroom experience, the *Practice Printable* creates the opportunity for students to engage with every math concept from grades 5 to 8. Available in both digital and print forms.



Every *Practice Printable* includes a *Worked Example* in the form of a tutorial video in which a student solves one of the problems and provides explanation and reasoning.

Practice Printable

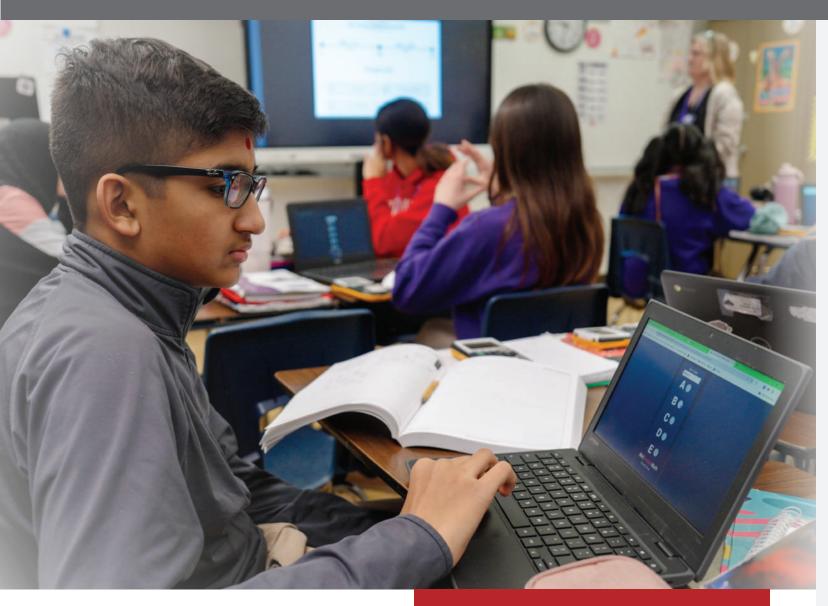
Part of **Core Curriculum**™
by MidSchoolMath

Drawable, write-able, annotate-able, digital printable

Developed in response to the pandemic, our digital *Practice Printable* has actually evolved into one of our most functional technologies in, or out, of the classroom, allowing students to draw, write, annotate and save their work.



All the way down to the glue used to bind the spine, whether it's a student workbook or a teacher guide, the quality of the print is second to none.



A formative assessment that promotes classroom discussion

Nothing works better than a quick wholeclass *Clicker Quiz* to check in with students prior to wrapping up a lesson. This low-stakes test (comprised of six multiple choice math problems) facilitated through any device gives a teacher real-time evaluation data to ensure the class is ready to move to the next standard. Not to mention, the *Clicker Quiz* itself is a learning tool that enhances longterm recall of concepts.

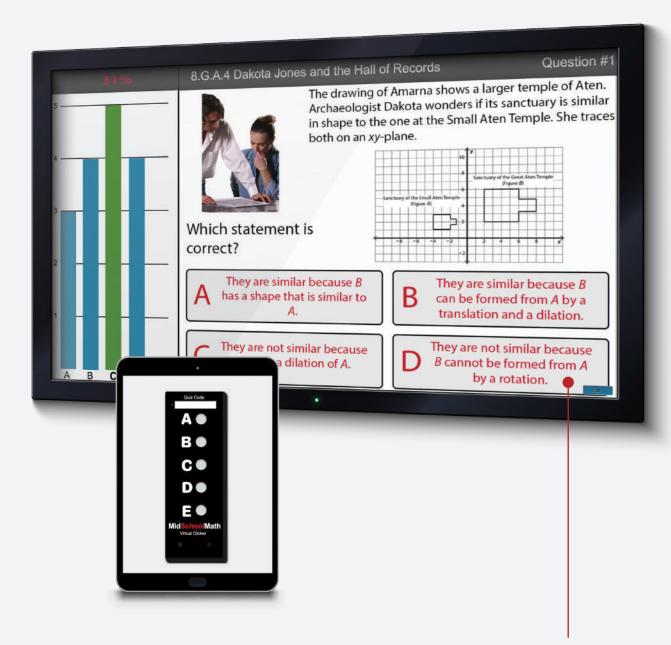


Top: A student prepares to select a Clicker Quiz answer with the virtual clicker. Bottom: Ms. Rowland discusses the multiple choice question with her class at Barret Traditional Middle School.

Clicker Quiz

Part of Core Curriculum™

by MidSchoolMath



Immediate feedback

See individual and whole-class results instantaneously with a six-question *Clicker Quiz* for each lesson. This quick tool is excellent for having students discuss strategies. Don't be surprised when your students cheer as they celebrate a solution together.



The state of the s

Students in Ms. Hodges' class at Barret Traditional Middle School begin the period with five minutes of *Test Trainer Pro* before the day's lesson.

A no-prep bell ringer that adds almost a year of growth

The mantra for *Test Trainer Pro*, 'low dose, high consistency' and the simplicity of the system means that each day, students have a routine of practice that builds fluency and creates ease of use for teachers. Students work at their own ability level, while teachers and administrators receive real-time data about their progress.

Test Trainer Pro

Part of Core Curriculum™

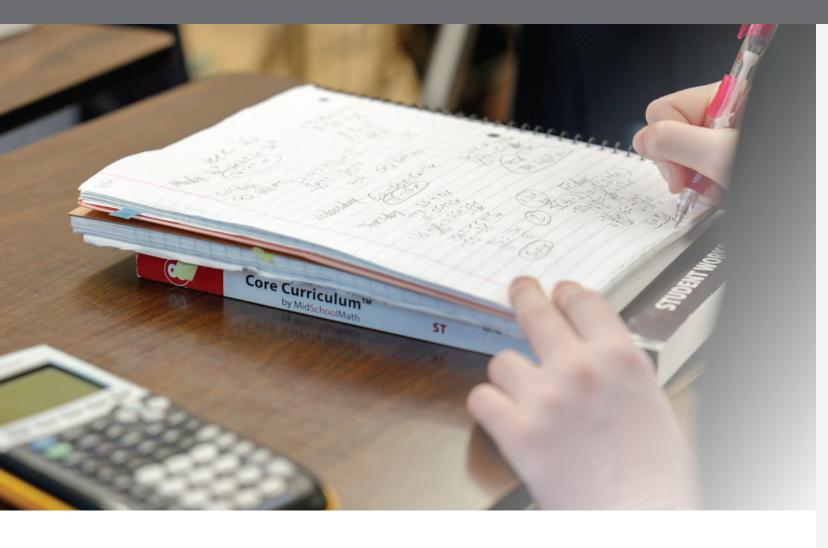
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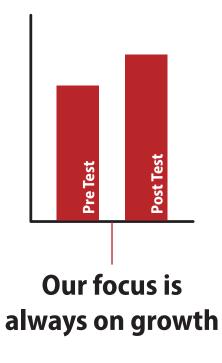


Precise proficiency data for every student, class & school

Test Trainer Pro provides proficiency data for each student and aggregate data for classes and schools over time.

Students are able to see their growth in every domain throughout the year.





To determine what students have learned, we have to know where they were before

We automated monitoring of pre-test to posttest learning gains for each *Milestone Assessment*, because it's about seeing growth, not just a score. And we automated recommendations for follow-up too, making the game plan for improvement a little bit easier.

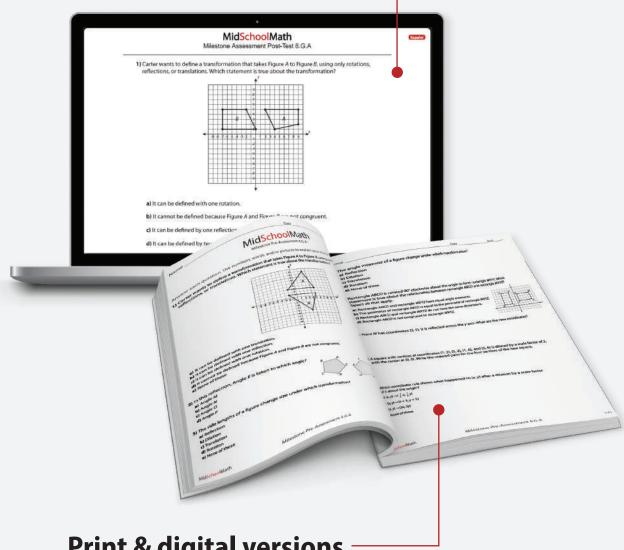
Milestone Assessments

Part of Core Curriculum™

by MidSchoolMath

Editable pre-tests and post-tests

For every summative evaluation, we have a parallel pre-test to gauge the learning gains of students. Every assessment is editable to meet the needs of individual classes.

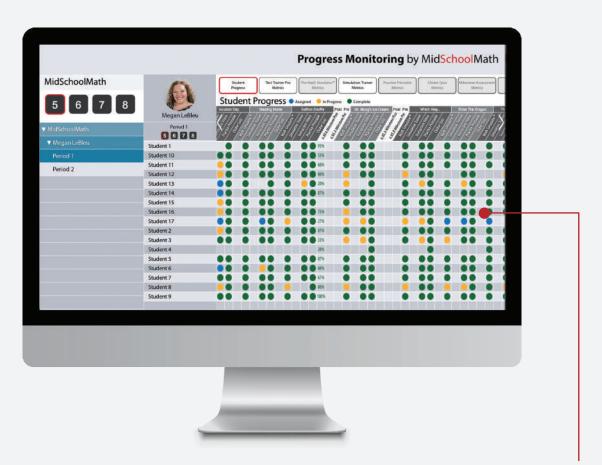


Print & digital versions

We offer two formats of Milestone Assessments for students: a digital version for ease with automatic grading, and a print version that allows teachers to evaluate more indepth questions and responses which cannot be evaluated by a computer.

Progress Monitoring

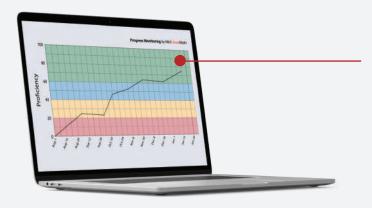
Part of **Core Curriculum**™
by MidSchoolMath



An unparalleled assignment communications system

Communication with students about assignments can be challenging to say the least.

View student work, the assignment, and respond, all in one place.



Data from the beginning to the end of the year

Rather than students taking a test a few times during the year with limited information, *Progress Monitoring* delivers multiple data points for every student; all the time, on demand.



Every school, every grade, every class, every student with individual and aggregate proficiency data

all in one place

Keeping track of students has never been easier. Drill down to a single assignment to see specific work, or view the aggregate proficiency scores across an entire school or district. Many assignments even have real-time updates that work in remote learning, or allow for teachers to share student work in class.





Remarkable Recall

A math lesson built from memory alone

By Dr. Scott Laidlaw Co-Founder

he students were shouting over each other. "Show Me the Money!" exclaimed one student.

"Race Day!"

"Winter Wonderland!"

"The one where they are trying to, oh yeah, *Escape from Mars!*"

"Slope of Sprouts" said another student. "That's the one where we learned about change in x over the change in y."

It's Mrs. Hodges' 2nd period

class. Students are working together in groups of three to remember the names of math lessons, and the math learned in them.

It wouldn't be all that remarkable except for two things. The lessons students are trying to recall spanned over six months, from August to January. Students are asked to remember the lessons and the math, entirely from recall.

"OK," begins Mrs. Hodges. "So far you've done a good job of recalling just what's up here," while tapping her fingers on her head to signify using only their brains to remember. "Your next task is to create a poster of everything you can remember from one of those lessons. Write down all the math, the vocabulary, and create a visual representation, from just what's up here," again reminding students this math lesson should be recalled from memory.

Students chatter excitedly about what lesson to choose for their poster, sharing what the lesson was about and what math they learned. One group organized, "Miles and I will work on the math description, and we can help you with the visual representation." Another group member

responded, "We could draw a graph – we need graph paper. Oh, and we could put our names here and draw a picture of a dead guy from *Cholera Outbreak*."

The excitement in the classroom is unmistakable as students draw visuals with descriptions and mathematical calculations on their posters.

These must be very gifted students. My students could never do that.

When teachers watch the five-minute video of Barret Middle School students creating a poster with a lesson title, a drawing depicting the story, along with the math description and a visual representation of the math, you can imagine how astonished mouths drop as students complete the task almost effortlessly.

One response encapsulates the



majority: "That's incredible. These must be very gifted students. My students could never do that."

I knew, of course, that these weren't students with extra computer memory chips installed. They were students of average proficiency at a public magnet school.

And now, a year later, I've seen the Recall Lesson replicated in Green Bay Public Schools, Portland Public Schools, Santa Maria Bonita Public Schools, Livonia Public Schools, and many other districts around the country.

What's more, I've seen the Recall Lesson completed in classes with students that have scored lowest on state tests, with astonishing engagement and results.

A question remains: how are students remembering?





The research behind memory

Most people I know experienced math class by answering the same type of question over and over, sometimes 10, 20 or 30 of the same math problems. Certainly, the intention of drilling math problems by my middle school math teacher was to ensure that I wouldn't forget what I was learning.

On the surface, this approach

seems plausible to support the basics of what we know about human memory: If we memorize a fact or some piece of new information, it begins to build a neural pathway to that information, which should be more easily accessed later. Practice a math fact over and over and the pathway becomes larger and faster to access.

Strangely, that's about where the memorization benefit starts to end and even starts to cause a memory problem. By building a singular neural path, what's lost is access to the fact.

When you look at any neural

network, you'll immediately notice something amazing: that there are a vast number of pathways to access the same synapse. And those pathways connect with each other. It's this aspect that makes the idea of teaching math in a way that connects to many pathways so essential to the learning process.

Imagine the difference for the Barret Middle School students if they spent their year drilling math problems. Students could have repeatedly practiced examples showing the relationship between two numbers and solved them to create a "line of best fit." Asked months later about what lesson they did in the beginning of the year, there would be no access point for students to recall why they learned the math. The multitude of math problems are not connected to a network of neurons made through visual context or story concept. Consequently, there are no synaptic connections for students to readily recall.

In contrast, if students were given a lesson, *Escape from Mars*, where the math made sense in context to a story, the relationship of the variables is no



longer abstract. Students would remember the story of how the life and death of a person driving a Mars rover depended on whether their calculations were correct. Moreover, once the students recalled the story, they could remember how the variables (the charge on the rover, the type of terrain they travel that depletes that charge, and the distance) were used to make the calculation.

The story lights up a vast neural network while connecting the math.

And students remember that math.

The research behind memory lies in human history and the way humans learned to survive. *Escape from Mars* provides the context of life and death based on the amount of food or water and distance needed to travel that is universal to our human survival.

The story lights up a vast neural

network while connecting the math. And students remember that math – the Mars context, the relationship between battery charge and distance traveled, and line-of-best-fit – long enough that they can pull it out of their brains without assistance many months later.

Making the math connections

After allowing students 20 minutes to complete their posters, Ms. Hodges approached her first group, still deep in enthusiastic discussion (in math class!).

"What was happening in that story?" asks Mrs. Hodges.

"Oh, she was trying to figure out how many miles she could go to win the race" answered two students almost in unison.

"What is the Y-Intercept?" Mrs. Hodges asks another group.

"It's where it crosses the Y-axis" they answer together.

"What's it mean?" she prompts.

"It's where it starts," one of the students replies.

"What's it mean for your sprouts?" she nudges.

"It's how much the sprouts have grown in 0 minutes."

"Nice! I'm impressed," she responds and moves to the next group, asking a few more probing questions, then regroups the class to finalize the lesson.

Their final task is to walk around the room and look at their peers' posters and select the one that they believe evokes the greatest recall in their own minds. The students chat noisily as they place stickies with their names on them, with every poster receiving several stickies.

"I thought the student work was really amazing," Mrs. Hodges tells us. "It's January right now and students were able to recall lessons from August and September with no guidance from me. I've found with MidSchoolMath, students can make connections. They remember the videos. They remember the events. And I'm starting to see more and more how they relate it to themselves."



MidSchoolMath's PD team climbs to new heights

By Alex Usatine Chief Editor

et at 9,321 ft above sea level, the day opens with Director of Professional Development, Jacqueline Johnson's challenge: "You can run or walk. Just go as quickly as you can to the top of the hill."

The team begins to move, some jogging, some walking, and all breathing hard. The hill is steep. In the quiet, everyone moves at their own pace to the top of the first knoll.

"We've got two more to go!" Jacqueline shouts, as if she were a fitness instructor.

Light glimmers through the trees in the crisp, mountain air. At the top of the third hill, she reminds everyone that our health is just as

important as knowing the curriculum, especially in the upcoming days of long travel to schools around the country.

This year's 'Training Camp for the Trainers,' that prepares Mid-SchoolMath's professional development team for the upcoming school year, was held at Taos Ski Valley. Amid the backdrop of aspen trees and empty avenues, the small New Mexico mountain town created an opportunity to elevate support for districts and teachers using Core Curriculum™.

With our team members spread across the nation, this is one of two annual events that brings Mid-SchoolMath together. And unlike the National Conference held in Santa Fe each year, the training camp allows time for strategy, planning and

collaboration, particularly focused on the professional development team.

In part, the training camp grew out of a natural extension of the work being done in schools. MidSchool-Math works with teachers across the country and visits hundreds of classrooms, and the company aimed to create a retreat setting where trainers could work with the feedback from those schools to improve pedagogy vital to the success of implementation.

Of course, for trainers new to MidSchoolMath, the methodology of the training camp was as unexpected as students watching their first Math Simulator.

The highlight this year? A DIY board game called *So, You Think You Know MSM? (SYTYK)*, developed by the company's co-founders.

"Rather than create a slide deck and stand-and-deliver our company history, we wanted to engage our PD team in a game mechanic similar to how we approach our math simulations," shared Co-Founder, Jen Lightwood. "We created card categories, including SYTYK, Timeline, Practice, Curveball, and Movement, where our trainers rolled dice to move around a 5'x4' game board.

This structure lies at the root of MidSchoolMath, where Co-Founder, Dr. Scott Laidlaw, used this pedagogical tool to immerse his students in a story where math makes sense in context.

The game immersed our trainers in important topics relevant to their job, including pop-quiz type questions about Core Curriculum™ components, practice time to improve delivery of the training, background of the company and its priorities, how to respond to curve balls thrown by teachers at an on-site PD, and even time for movement with our own yogi, Dr. Lori Brown.

Among the more serious questions about the foundation of Mid-SchoolMath, such as grants the company was awarded from the US Department of Education, Gates Foundation, and National Science Foundation, there were also tongue-



in-cheek questions centered around the earliest days of MidSchoolMath when students called Scott on their (and his!) spring break to ask if they could continue playing the math game, *Ko's Journey*.

There was plenty of time to enjoy the outdoors on the normally snow-covered trails surrounding the ski valley. Nancy Qushair, new to the PD team this year, reflected on her experience. "The retreat was thoughtfully designed, providing a perfect blend of engaging activities, practical applications, and collaborative discussions. My new colleagues were not only experts in their fields, but also

incredibly supportive and approachable, creating a safe and conducive environment for learning."

"My experience at the retreat was nothing short of breathtaking and eye-opening. It personally rejuvenated me, instilling hope and clarity as I delved into the company's roots and products. The retreat broadened my perspective, enhancing my skills as a trainer and framed my journey with the mindset of a lifelong learner," adds Dr. Ryen Jackson.

The PD team left the Taos Ski Valley refreshed and ready to hit a busy travel schedule to meet district needs for the 2023/24 school year.





Professional Development & Implementation Training

Part of **Core Curriculum**™
by MidSchoolMath



On-site training, full service

Nothing is as effective as on-site training where teachers have an opportunity to experience the curriculum in the student role and then have time to practice delivering lessons. A 1-day training is a great introduction or refresher; a 2-day training allows teachers to go more in-depth; a 3-day training allows for valuable planning time. All trainings are customized to meet district needs.

Classroom coaching

For districts preparing for the highest levels of implementation, in-class coaching is essential. Mid-SchoolMath trainers visit classes to provide feedback, problem solve, and even occasionally model a lesson to a class. The combination of on-site training and classroom coaching is the strongest method of implementation for districts.





Setting the standard for implementation

MSM's Director of Professional Development shares her insights from the field

By MSM Staff

MSM: You've been flying around the country quite a bit?

Jacqueline Johnson: A lot. From Cornish, NH to Louisville, KY to Corvallis, OR, I've been working with thousands of teachers from around the country, both in trainings and visiting their classrooms.

MSM: What have you learned by being in so many places?

JJ: Teachers have a lot of different styles, but you recognize good teaching when you see it. Classes are engaged. Students are talking and challenging themselves and each other. Students are creating mathematical visuals and teachers fill their vertical wall space with student work.

MSM: You spoke about good teaching, and every comment was focused on students?

JJ: That's really the key. Over the past couple of decades, we've learned so much about learning and we know it goes far beyond teacher lectures. Teachers that can facilitate a good classroom discussion are leveraging

learning effect sizes that are double, or even in some cases triple compared to classrooms where the primary methodology is providing information from teacher to students.



Jacqueline Johnson Director of Professional Development

MSM: Some teachers think the shift to student collaboration is hard to make with their students. What advice do you have?

JJ: Launch with an immersive experience and give students time to decode a math problem without getting too 'math-y' to start. This is what gets them talking. Have them create

visual solutions. Most importantly, back just a little from the tendency to provide a lot of help and allow your students to grapple. Facilitate rather than teach and watch engagement and collaboration come alive in your classroom. With MidSchoolMath, you have a curriculum structure that supports this pedagogical approach. I've been in hundreds of classrooms around the country with all types of students and it works everywhere.

MSM: What's the most important factor for good implementation?

JJ: Without a doubt, it's that the school or district must consider this a team effort. And cultivate excitement about making mistakes and excitement to fail! I know that may sound strange, yet it takes district level leadership to feel okay about that type of mindset. MSM: What does this mindset look like?

II: It's a mindset that embraces the pathway of maximum proficiency through the land of mistake, revision, mistake 2, revision 2, mistake 'n'. Revision 'n'. This is almost unheard of in education. But it's what matters most.

2024 MidSchoolMath National Conference

MATHEMATICAL DIVERSITY: How differences in perspective bring value to math

With keynote speakers:



Kevin Simpson
Global consultant in mathematical identity

Jo Boaler
Author of Mathematical Diversity
(to be released May 7, 2024)





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Past Speakers

Geoffrey Canada Founder of Harlem Children's Zone



Carol Dweck

Author of *Mindset: The New Psychology of Success*



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Behind the scenes of MSM's Spanish localization

By Alex Usatine Chief Editor

ew know the extent of the film content contained within Core Curriculum[™] better than Megan LeBleu, Mid-SchoolMath's Director of Curriculum. "It's truly mind boggling how many individual videos are contained within our software. There's 272 alone for The Math Simulator[™], 20 Domain Replays, 136 Teacher Instruction videos, and another 136 Worked Example videos," she explained. "All of the content has been produced to a high standard with great production value, and each video has closed captioning and Spanish subtitles."

For ESL students, subtitles allow for low entry access to the materials to support a basic understanding of the content. However, graphical elements, including text often related to math problems, cannot be translated through subtitles. Content producers like Netflix have found that more viewers prefer to watch dubbed foreign content, likely because compared to subtitles, dubbing decreases

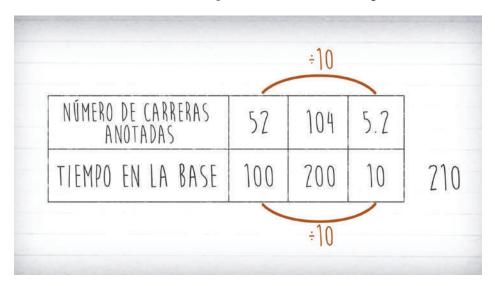
distraction and increases immersion into a story and its characters.

Since immersion is central to MidSchoolMath's approach, they borrowed a page from the film industry's playbook with the goal of seamlessly dubbing and translating the graphical content in each video in a process called localization.

To prepare, MidSchoolMath's media production team has been hard at work, cataloging and compiling all of the video and graphical assets needed for such a conversion. They then reached out to SPG Studios, a compa-

ny with over 30 years of experience in localization to complete this vision.

"Traditionally, SPG was a dubbing studio that focused on the entertainment industry," explains Max Bienvenu, SPG's senior director of business and series development. "Our legacy clients are companies like HBO, Disney, Warner Bros., where we've dubbed their tentpole movies, their TV series like Game of Thrones, Batman, Inception, and so on. And more recently we're using this expertise to benefit other companies in other industries, including education."



Part of what makes the end result so accessible to the viewer is not only the dubbing of each actor's voice by a native Spanish speaker, but in the type of dubbing performed.

"For MidSchoolMath, we're performing lip-sync dubbing, which is pretty much the top tier version of it," says Bienvenu. "That's what you use for movies and any high value content. It's pretty much matching the live movement, matching every pause. It's a tedious process in the translations part and also in the recording. In the recording studio, the actors try to mimic the energy and

the emotion, while also making sure that each word is matching the tempo of the original and the breath and the pauses and everything."

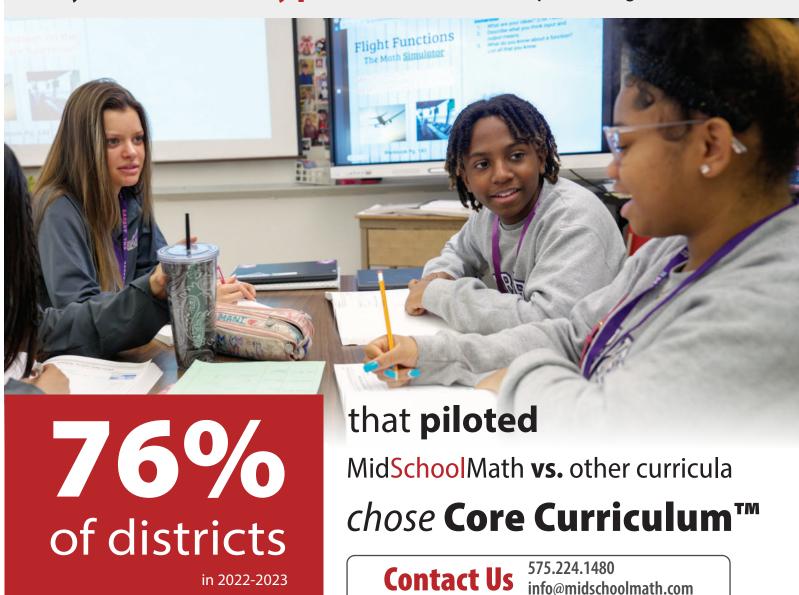
After watching some of the first videos localized by SPG, MidSchool-Math's Director of Scripted Content, Michelle Moore observes, "The audio is great, the casting is fantastic and I am amazed at how they are able to write and perform so the Spanish actually syncs up with the original actors' performance and mouth movements. It's not like watching the dubbed movies from the 1970s! I definitely feel this tool will help the

math comprehension of our Spanish speaking students."

Bienvenu of SPG agrees. "In terms of the difference between a full localization versus subtitling, it's very difficult for anyone to look at the bottom of the screen, read the content and watch what's happening on screen at the same time. You lose a lot of information. A localization is much better for the student's experience and their understanding of the content."

MidSchoolMath's Spanish localization is underway and will be completed in the first half of 2024.

Try a no-cost 40-day pilot with full access to print & digital materials

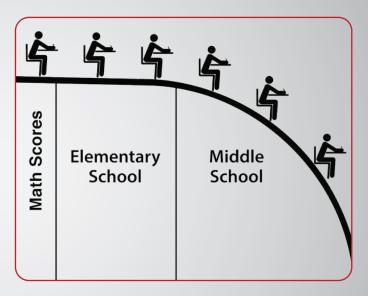


Why We Focus on Math in the Middle Grades

Nearly every district across the country shows comparable declines in the middle grades. Thus, administrators and teachers immediately recognize and connect with this phenomenon of 'the mid school math cliff.'

From a global perspective, students in the United States typically score above average in elementary school, yet the US ranks in the bottom tier of math scores for 15-year-old students. Based on nearly twenty years of evidence from The International Math & Science Study (TIMSS) and the Programme for International Assessment (PISA), among 34 OECD countries, the US decline from 5th to 8th grade is the greatest in the world.

MidSchoolMath was founded on the idea that we can change how math is taught during the middle years, when it matters most.



'The mid school math cliff'