



A POWERFUL, INTERACTIVE MATH TOOL BUILT FOR KENTUCKY

Dana Jenkins (Co-Director, South Carolina)
Morgan Chittum (Vice President)
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The Challenge

EDUCATION

'Disappointing.' Less than 50% of students got top marks at many Ky. schools

BY VALARIE HONEYCUTT SPEARS

UPDATED SEPTEMBER 29, 2021 5:02 PM



The Kentucky Department of Education building in Frankfort. *FILE PHOTO.*

“The Kentucky Department of Education on Wednesday released statewide spring 2021 test results that showed many schools had less than 50 percent of their students scoring at the proficient or distinguished levels.”

[Lexington Herald Leader](#)

The Challenge

ACT Pre-COVID

2018-2019: 20.6

2019-2020: **19.5**

- [KDE](#)

News

Kentucky seniors' ACT scores decline, as does national average

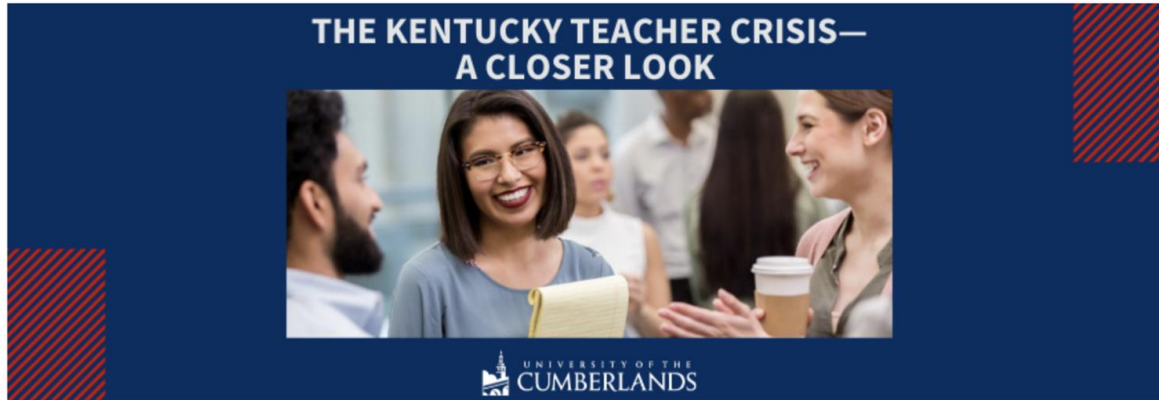
By **Jim Gaines** - October 14, 2020 👁 2188 💬 0

[👍 Like 53](#) [🐦 Tweet](#)

The graphic features the ACT logo in blue with a red swoosh under the 'A'. Below it, the text 'Class of 2020' is written in a large, bold, blue serif font. The entire graphic is set against a white background with dark blue curved corners on the left and right sides.

The Challenge

THE KENTUCKY TEACHER CRISIS—A CLOSER LOOK AT A CONCERNING PROBLEM



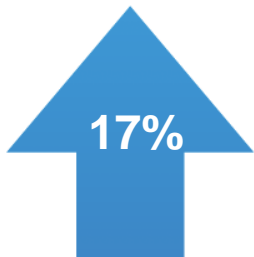
Tue, 05/25/2021 - 10:00am

The teacher shortage will expand by 7% over the next ten years.

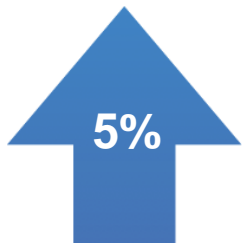
Math Nation Outcomes Across States



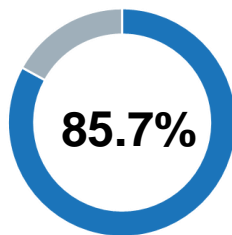
Higher pass rate for high-usage Mississippi high schools vs. state average
Seymour, D. (2017)



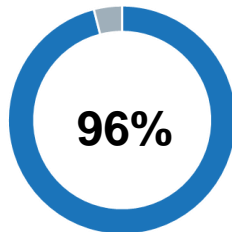
Higher proficiency rates among 400 Title 1 schools in Florida
Qiu, Y. (2019)



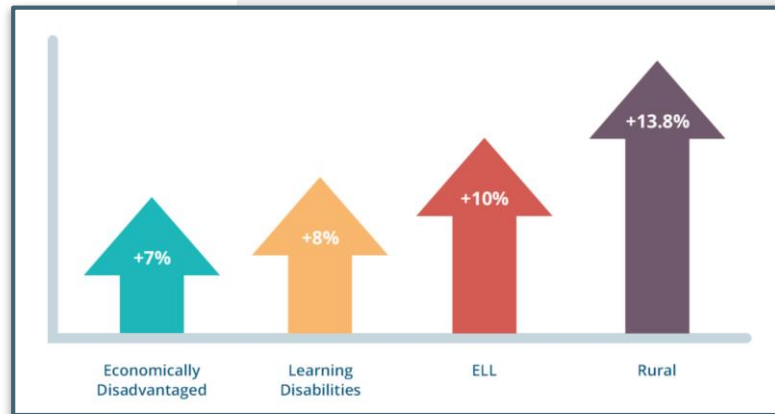
Higher PSAT math scores in Detroit Public Schools
Sawilowsky, S. (2019)



Algebra 1 exam pass rate for high-usage Florida high schools
Qiu, Y. (2018)



of teachers agree or strongly agree that they would recommend Math Nation to their colleagues
WestEd, (2021)



Qiu, Y. (2019)

Math Nation's Story

- 2012: FL Algebra 1 End-of-Course Exam
52% failure rate
- Teachers Asked For:
 - Engaging videos with ability to choose instructor
 - Workbook to follow along
 - Peer-to-peer tutoring nights and weekends for all students
 - District-by-district approach
 - Increased parent involvement
- Math Nation adopted by 100% of districts in Florida (no mandate)
- By 2017:
High-usage schools: 86% pass rate
Low/no-usage schools: 59%
- 5-star Learning Rating and 5-star Community Rating from Common Sense Media
- Statewide in Mississippi, South Carolina, Michigan
 - Public schools
 - Private/religious schools
 - Adult education
 - Community colleges
- University partnerships: Standards alignment, local examples, **evaluation**

State Superintendent of Education - Mississippi

“ The Mississippi Department of Education (MDE) has **enjoyed a very positive experience** working with Math Nation over the past several years to increase student achievement and teacher mastery in the area of Mathematics across the state of Mississippi.

This tool has enhanced the educational experience for not only our teachers and students, **but has also been valuable to parents** as they work with their children at home in the evenings

The MDE is excited about the possibility of new opportunities to work with Math Nation in the future -- **especially in rural communities throughout the state that experience unique education and staffing challenges.**

The Math Nation team has demonstrated commitment to supporting public education in Mississippi by developing **innovative educational technologies that improve the teaching and learning process in mathematics classrooms across the state.**







Dr. Carey M. Wright, Ed.D.



Engaging Videos

Choose your Study Expert

(don't worry, you can switch at any time!)

<input type="radio"/>	 Amy	<input type="range" value="50"/>
		REVIEW IN-DEPTH
<input type="radio"/>	 Ashley	<input type="range" value="50"/>
		REVIEW IN-DEPTH
<input checked="" type="radio"/>	 Darnell	<input type="range" value="50"/>
		REVIEW IN-DEPTH
<p>Don't let Darnell's laid back vibe fool you, he is a total sports fanatic. He watches all sports (yes, that includes curling!)</p> <p>Play Bio Video CHOOSE THIS STUDY EXPERT</p>		
<input type="radio"/>	 Jose	<input type="range" value="50"/>
	SPANISH SUPPORT	REVIEW IN-DEPTH
<input type="radio"/>	 Kiana	<input type="range" value="50"/>
		REVIEW IN-DEPTH
<input type="radio"/>	 Zach	<input type="range" value="50"/>
	CLOSED CAPTIONED	REVIEW IN-DEPTH

CANCEL **LET'S GO!**

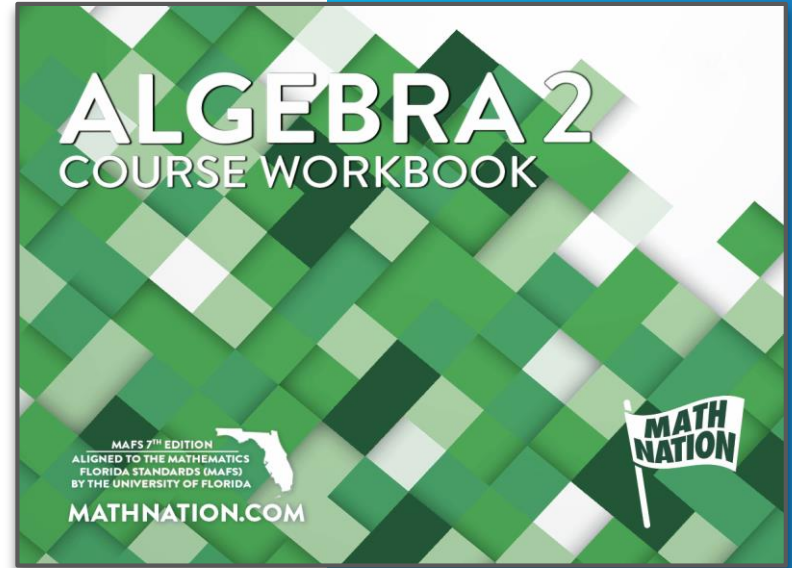
Rockstar Reception for a Math Tool





Student Workbooks

- Accompany the Study Expert videos
- Perfectly aligned to Kentucky Academic Standards
- Kentucky examples



Personalized Remediation Tools

- On-Ramp to 6th Grade Math
- On-Ramp to Algebra 1
- Diagnose and remediate specific gaps in foundational elementary and pre-algebra concepts

The screenshot displays a user's progress in a remediation tool. At the top, it shows 'Domains completed:' with a progress bar for five domains (1-5). Below this, two star icons indicate 'Streaks of 3' and 'Longest streak'. A list of math topics is shown, with '5. STATISTICS AND PROBABILITY' highlighted. A video recommendation for 'Jose' is overlaid on the right, with a description: 'Watch Jose's Spanish Support videos if you want to hear concepts in Spanish. Jose goes through problems that are written in English, but he reads explains them in Spanish. He is also high-energy, over-the-top, and enthusiastic about all things math! Jose is originally from Puerto Rico and is a huge soccer fan (in his spare time, he coaches). He also likes basketball, horses, and he cooks!'. Below the video, there is a 'REVIEW' section with an 'Add!' button and a 'START-UP' section showing 'Completed: 03/16/2021 04:38 PM' and a 'Review' button.

Math in Action

- Videos and activities that spotlight careers and industries where math is truly in action
- Boeing, drones and aviation, blueberry farms, zip lining, and more!





Night & Weekend Tutoring

- Student collaboration (with Study Experts moderating)
- Students as guides; 'tutors' not necessarily needed
- Karma Points, leaderboards, prizes
- Community service hours reporting

Zaid Kaseer Jacksonville, FL Karma Points: 0
I hope I pass my test... Please wish me good luck
Like Comment May 28th at 9:48pm (Post #266924)

Luke Han West Palm Beach Karma Points: 0
Good luck
Like Comment May 28th at 9:48pm (Post #266925)

Liana Harak Orlando, FL Karma Points: 0
As you wish, but you wish with?
Like Comment May 28th at 9:48pm (Post #266926)

Victoria Yen All Cities Karma Points: 0
Good luck!
Like Comment May 28th at 9:48pm (Post #266927)

Dylan Kilgallon St. Cloud, FL Karma Points: 0
good lucky buddy, I know!
Like Comment May 28th at 9:48pm (Post #266928)

Brandon Love Miami, FL Karma Points: 600
On a voyage to Atlantis, Ariel from The Little Mermaid decided to pick up shells so that she could make necklaces for her mermaid friends. She picked up 30 green shells, 35 blue shells, and 30 yellow shells. 17 of the green shells had some blue in them. 15 of the shells had both yellow and blue in them, and 10 of the shells had both yellow and green in them. If just one shell had all three colors in it, how many total shells did Ariel pick up?
I have no idea how to solve this I am confused like crazy. This is in section 1 test yourself.
Like Comment April 8th at 6:10pm (Post #154306)

Anam Ahmed Boca Raton, FL Karma Points: 100
you would have to make a venn diagram shown in the section one videos
Like 1 Comment April 8th at 6:11pm (Post #154307)

Brandon Love Miami, FL Karma Points: 600
I know i did but i'm not sure if i'm right.
Like Comment April 8th at 6:12pm (Post #154311)

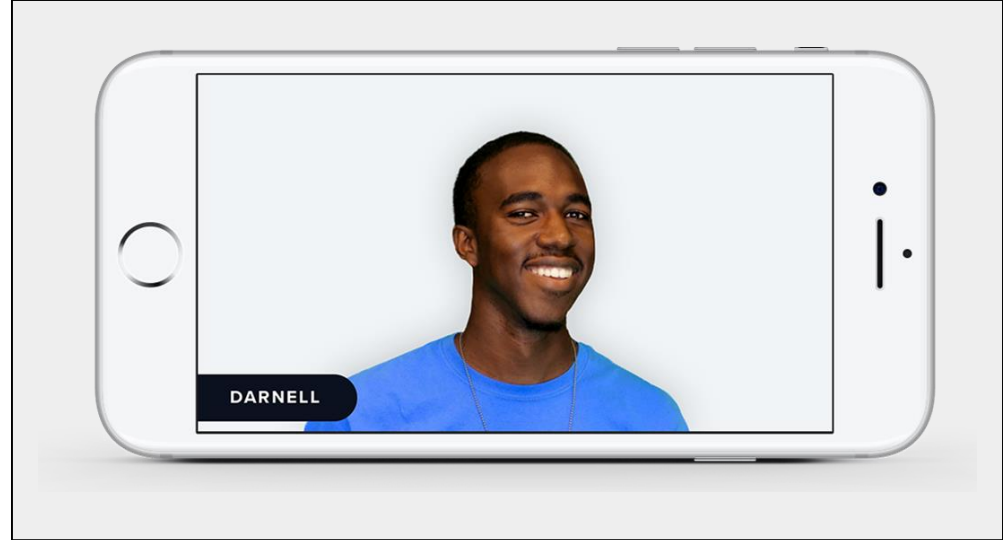
Anam Ahmed Boca Raton, FL Karma Points: 100
it would be with three circles, start by placing the shells with two or more colors in the intersecting circles. then use those numbers by subtracting them from the total number of shells
Like Comment April 8th at 6:12pm (Post #154312)

Brandon Love Miami, FL Karma Points: 600
This is what I got as my answer.

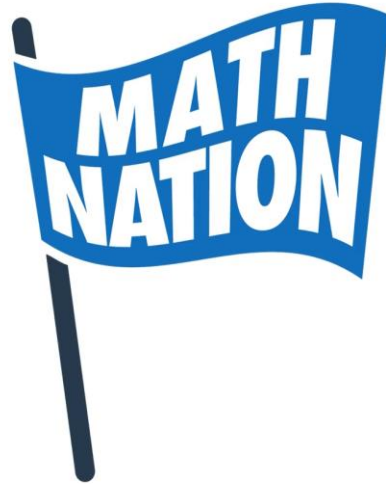
Like Comment April 8th at 6:15pm (Post #154323)

Universal Access

- All hardware devices across all districts
- Nothing to download
- Mobile app:
 - Devices 6+ years old
 - Offline videos
 - Glossary games



Family Support Videos



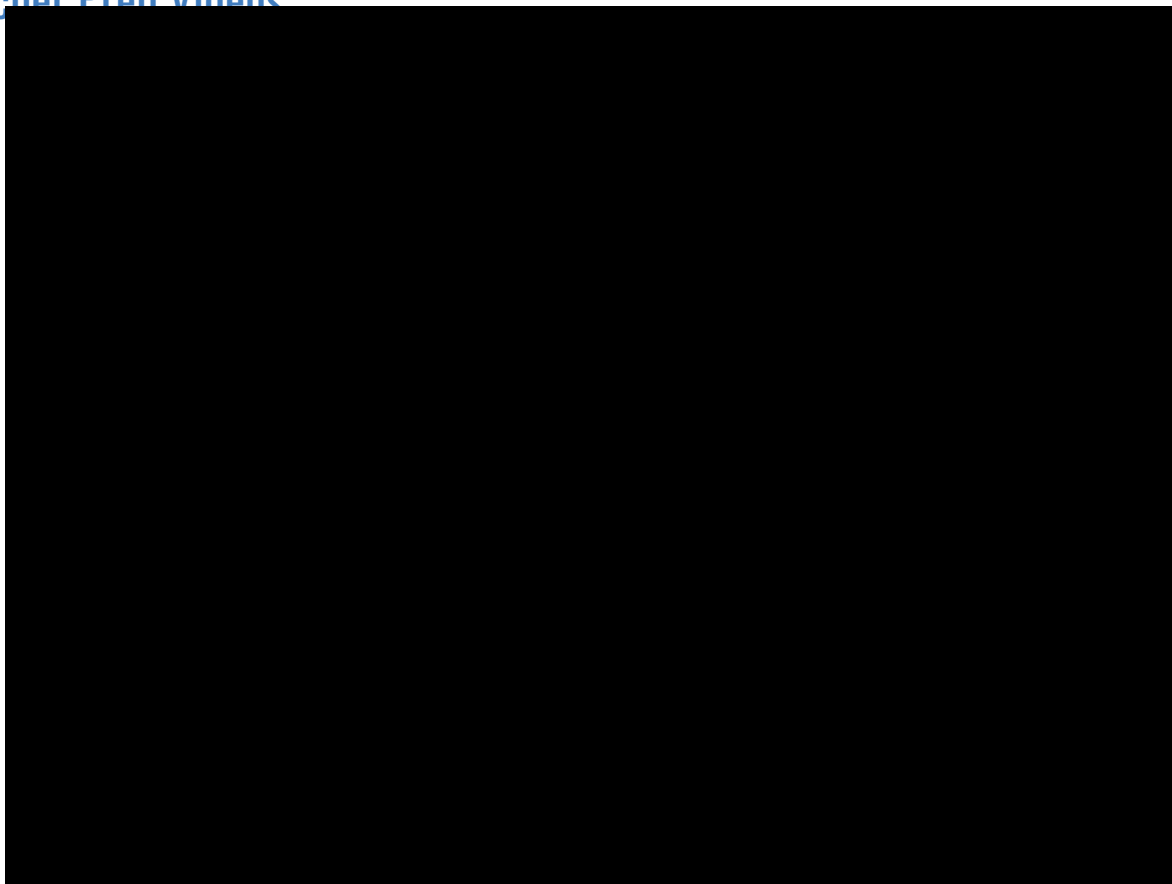


Questions & Discussion

Morgan Chittum
Ethan Fieldman
Dana Jenkins



Teacher Prep Videos



Teachers Love Math Nation

I love how everything is set up. I showed my students how they could have the material read to them and that the study experts are right after the problems in the digital textbook view and I even made them watch the family video guide because I think that can be helpful for some of the students to get the overview of the lesson right from the start. I also showed them the applets. **Math Nation has done a great job taking student excuses away.** No more, "I don't have my book," "I don't understand what it is asking," "there is too much reading." I just wanted to let you know I noticed and that I think you guys are doing a great job!"

Leah Herman
Teacher
Gobles Public Schools



"Math Nation has been a great resource for students to access **individualized tutorial curriculum** with, that supports what they are learning in my regular algebra class. The variety of instruction provided through the 'study experts' in Math Nation has really **allowed my students to connect in a personal way with an instructor when they haven't connected with the curriculum successfully in the classroom.** It has also allowed students to **close their learning gaps with concepts if they have missed** either in prior years of math instruction or in my class due to absences or the progression through the curriculum going too fast for them individually. "

Michelle Mangiapane
Teacher
Plymouth Canton Schools



"I have not seen another program that **seamlessly integrates a text, with custom videos, class presentations and customizable worksheets** this well ever in the last 11 years of teaching. Many text books try to do some of it well, and some web sites can offer digital resources, but **Math Nation is the tool that helps direct teachers to the future of education** in a way that is effective and has been designed to be sustainable if supported. If my students are able to continue with this resource, they will be able to keep their digital profile, progress and resources for every class from 7th grade math all the way through their high school years."

Matthew Campbell
Teacher
Flint Community Schools



"Math Nation has **provided the structure needed to help my alternative education students succeed** with note taking guides, multiple videos for each topic based on math background needs, and checkpoints throughout the program **aligned to our Michigan standards.** Losing this resource would negatively affect those students that sometimes can't make it to school for direct explicit instruction. When the students do finally return, they aren't so far behind what is happening in our classroom."

Carla Belyea
Teacher
Battle Creek Public Schools



Teachers Love Math Nation (cont.)

"I absolutely LOVE the fact that there are so many **options** with the Math Nation program and so many different ways to use them, too! Some of my **favorite** resources are the Independent Practice, the Test Yourself, and the Activities. I love to use the Independent Practice for **differentiation**. The Teacher Activities have been a 'go to' for me as a way to introduce new material through **exploration**, as well as a way to review concepts and clear up misconceptions."

*Carra Turner
Teacher
Chickasaw County
School District*



"We greatly appreciate the **support** and **resources** we have for our middle school and high school math students. Math Nation is a huge **help** especially in these uncharted times. We find your resources very useful to our traditional learners but even more so with our virtual kids. We **strongly desire** to keep these resources and to hopefully build upon them."

*Tony Clark
Math Specialist
Forrest County School*



"I have seen Math Nation become a very **effective** resource for my students. As for the state Algebra I assessment, I have had **great success** with Math Nation--wouldn't trade it for anything. During the pandemic, my students never missed a beat because the videos served as the teacher. I use the **On-Ramp Tool** to determine if the student is ready for 8th Algebra--great tool. The resources that Math Nation offers are **priceless**."

*Eddie Butler
Math Content Specialist
Greenville Public
School District*



Math Nation's **robust** platform is essential for today's virtual, hybrid, distance, and in-person classrooms. Math Nation provides teachers with the **flexibility** they need to **effectively** deliver both synchronous and asynchronous learning. With Math Nation's easy to access platform, teachers can plan effectively to reach **all students**."

*Kathleen Light
Teacher
Pascagoula School District*



Integrated With All Major SIS/LMS Vendors



Google Classroom

