Math Corps Minnesota State House Education Finance Committee.



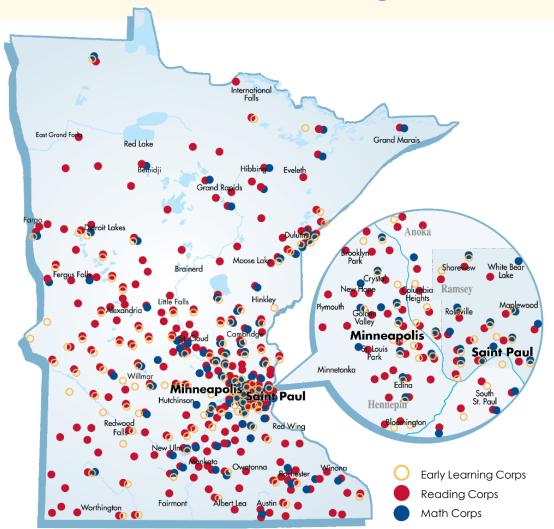
The Power of AmeriCorps.
The Power of You.

February 16, 2023

Statewide Reach of Math Corps and Reading Corps

Math Corps (Blue) Partner Sites

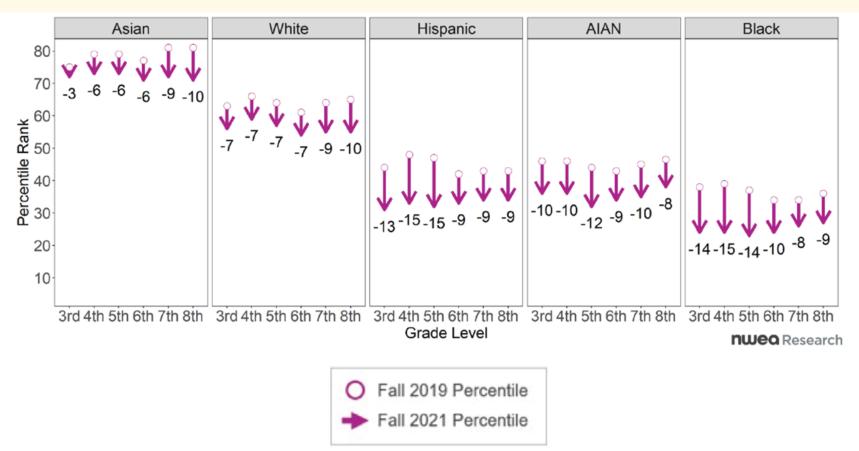
- 160+ sites
- 180+ tutors
- 4,000+ students tutored
- Statewide







Math Scores Before and During the Pandemic



Note: The circles represent the median percentile rank for the pre-pandemic (fall 2019) cohort; the arrow tip represents the median percentile rank for the fall 2021 cohort; and the value outside the arrow indicates the change in median percentile rank between fall 2019 and fall 2021.

Lewis, K., & Kuhfeld, M. (2021). Learning during COVID-19: An update on student achievement and growth at the start of the 2021-22 school year. Portland, OR: NWEA Center for School and Student Progress.

Math Corps: Learning Science

Addition Battle

Grade and Unit: 2.3 Difficulty Level: 2

Objective: Add up to four two-digit numbers using strategies based on place value and properties of

operations

Materials: 4 dice, whiteboards, markers, erasers

key vocapulary: Tens, ones, regroup/exchange, sum

Intervention Sequence

Explanation:

Today we will practice adding 3-4 numbers.

Skip explanation and modeling once students have a strong maerstanding of the activity.

Today we will draw lines to represent tens. Draw a line. And we will draw dots to represent ones. Draw a dot. You will each roll dice to create 3 numbers that you will add together. The number that you get when you add your numbers together is called the <u>sum</u>. Whoever has the greater sum wins that round

Model:

pretend I rolled 3 and 6. I could v Student response. 63, so I'll keep drawings. I'll draw 3 dots to sho

Next, let's pretend I rolled two 5 to show 5 tens (draw). Next, I wo and a 4. What number should I w

Last, I will add all these numbers Because 12 is 10 or more, I need it out, and drawing an additiona added a 10 (write). Now I am left

Next I'll count the tens. If we did fingers. Remember that we can a I'll add those numbers first. To h out after I add them (cross off 5s get 17 (cross off 1). Because I'm I tens place and the 1 in the hund

Use effective materials

Focus on high-yield skills

Grade: 2, Unit: 3, Lesson: Addition Battle Difficulty Level: 2

Guided Practice:

Let's do one together. This time we'll add the same numbers just for practice. You'll take turns rolling the die and writing the biggest number you can with each digit. Hand whiteboards and dice to students. Guide students through the process of writing, representing, and adding the same 3-4 numbers.

Independent Practice:

Let's play again, but this time you will roll and add different numbers independently. Whoever has the largest sum wins! Have students each (1) Roll 2 dice (2) Write their 1st number (3) Draw their number (4) Repeat this process to create the next 2-3 numbers (5) Add their numbers together. (6) Compare their sums. Have students roll at the same time for each number so you can monitor the numbers they are writing.

Closing

Today we learned how to find the sum of 3-4 numbers. End the session with specific praise to students, using one of these sentence stems (1) I noticed that you.... or (2) You did an excellent job with.....

Correction Procedure

If a student makes an error: Let's look at that again. If you're unsure of what type of error a student made: Can you explain your thinking?

- Problems with understanding: (1) Clarify what the student did correctly, (2) ask questions to
 quide the student toward the correct answer, (3) provide modeling and additional practice.
- Problems with computation: Prompt student to self-correct. If they cannot, model and provide correct response.

Use effective instruction practices

Foster joy and confidence in math





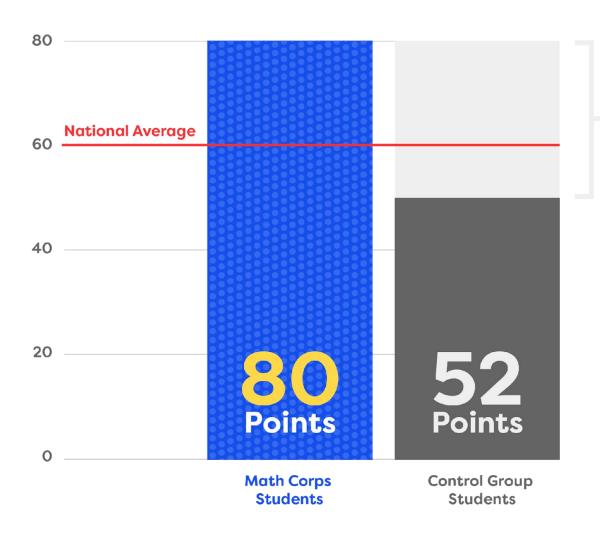
Math Corps: Implementation Science

- ✓ Efficient learning groups
- ✓ Sufficient dosage
- ✓ Effective coaching structure
- ✓ Fidelity Forms
- ✓ Data Driven





Math Growth





Math Corps students outperform national average growth

scoring 28 points higher than the comparison group.





Value to State



- ✓ 100% of teachers say Reading Corps and Math Corps have a positive impact on students
- √ 95 % of teachers say Reading Corps and Math Corps increased students' confidence in reading or math
- ✓ Nearly half of our tutors will pursue a career in education (and 9 in 10 note that they gained powerful instructional skills)



National Recognition for Math Corps

Its high-quality research proves its effectiveness, and it is committed to expanding to meet the urgent need for effective support on the ground in schools.

— Nancy Madden, Johns Hopkins University, **Proven Tutoring**

We appreciate and applaud Math Corps' use of data, in which tutors, coaches, and teachers collaborate to assess student progress and make intervention adjustments, and even determine when students no longer require support.

— Matthew Kraft, Brown University, National Student Support Accelerator

Low success in math is linked to outcomes in education, income and career attainment. ServeMinnesota is tackling how to support students from marginalized backgrounds access supplemental math support.

Duke University's Fuqua School of Business



Keven Tell

Sanford Middle School teacher

"I majored in chemistry at Carleton, and found a job in the corporate world and just didn't like it. A friend of mine was serving with Reading Corps and told me to give it a try. I served a year and then wanted to try Math Corps, because I'm more of a science guy. It was great to be in a school and see how it works. Wanting to be a teacher was always lurking under the surface for me, and being part of the school community tipped me over the edge. Serving with Reading Corps and Math Corps is a really great introduction to what it's like to work



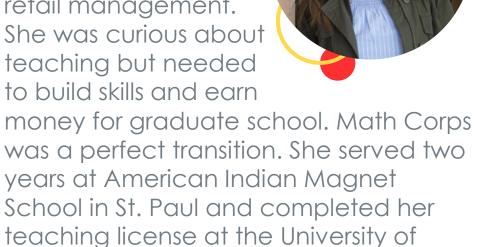
AmeriCorps

with kids all day, every day. Plus, it's a cool opportunity to see what schools are like now – they've evolved a lot even since I've been there, which isn't all that long ago. I got to see a lot of different teachers teaching, and it helped form what I would want to do as a teacher. I also learned that I really like working with middle schoolers – their own personalities are coming through and they still have a lot of excitement for school. My AmeriCorps education award helped me get my teaching license, as well as pay back my student loans. Serving with Reading Corps and Math Corps helped move me to the next level. Today, I'm a sixth grade science teacher at Sanford Middle School in the Minneapolis Public Schools District!"

Kimberly Le

Edison High School teacher

Kim had a degree in math and a few years' experience in retail management. She was curious about teaching but needed to build skills and earn



Angela Schanley-Miller

King Elementary special education teacher

As a paraprofessional, Angela's colleagues encouraged her to apply for Math Corps. While tutoring, she earned her K-6 teaching license at Bemidji State University. "I left



myself open for collaboration with staff, and that opened doors professionally." She now teaches at King Elementary in Deer River.



Minnesota. She now teaches math at

Edison High School in Minneapolis.

Opportunities for Reading Corps & Math Corps members

- ✓ Individualized career counseling to pursue careers in education
- ✓ Intentional focus on supporting our BIPOC and American Indian members' career aspirations
- ✓ Building Greater Minnesota educator pathway
- ✓ Developed Grow Your Own teacher pathway program for AmeriCorps members to help reduce barriers to becoming teachers





Math Corps
A Strategic Initiative of ServeMinnesota.

Contact David Parker, Ph.D. – david@serveminnesota.org



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