# GUIDE TO BECOMING A MEC MATH CORPS SITE 2019-20





Considering partnering with MEC Math Corps? This Guide contains the information administrators should know. Please read carefully prior to submitting your Site Application.

If you have any questions, please contact Renee Borg, Director of Programming and Operations at <u>rborg@hopenetwork.org</u> or 616-490-4408

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## **MATH CORPS FACT SHEET**

Math Corps is an **evidence-based** math intervention program delivered by AmeriCorps Members that provides **90 minutes of weekly interventions** to **4th-8th grade** students in **pairs** to improve **foundational** math skills required for **algebra readiness**.

#### What are Math Corps services?

- Math Corps is an evidence-based, standard protocol math intervention program developed by math experts and delivered in the school ("site") by Math Corps Interventionists.
- Trained Math Corps Interventionists provide evidence-based interventions to students in grades 4 8 who are just below grade-level proficiency in math, based on their performance on the state accountability test.
- The Interventionist is trained to deliver an entire intervention package to Tier 2 students, including determining eligibility, delivering the interventions, progress monitoring, and formative assessment.
- Math Corps interventions are aligned with Common Core State Standards and Michigan Math Standards in Number & Operation and Algebra strands.
- The Interventionist is supported at the site by a school staff member called the Internal Coach.
- Each site also has two outside consultants that will visit the site regularly. The Master Coach provides support on content and the Program Staff provides support for program-related requirements.
- The Math Corps program uses data for all decision-making (i.e., identifying students to provide interventions to; targeting instruction; monitoring progress; exiting students).

#### Which students are eligible to receive Math Corps services?

- Math Corps serves students performed below proficiency on their previous year's state accountability test.
- Student performance on the STAR Math Assessment is also used.
- Students receiving Special Education or English Language services are eligible on a case-by-case basis, as determined by the Internal Coach in collaboration with the Master Coach.
- Students are progress-monitored on a regular basis.

## Multi-tiered System of Support (MTSS)



#### When are services delivered?

- Intervention sessions are delivered during the school day outside of core math instruction times.
- Students participating in Math Corps receive 90 minutes of Intervention per week.
- Students are served in pairs.

#### How does an Interventionist know what to teach?

- All lessons have been developed to align with the Common Core State Standards and Michigan Math Standards in Number & Operation and Algebra strands.
- Each grade level has a Lesson Sequence. Students take a Placement Test before beginning Interventions. The Interventionist uses results from the Placement Test to determine where in the Lesson Sequence to begin Interventions.
- Progress monitoring and formative assessments are built into the Math Corps program model.
- Interventionists DO NOT provide homework help.

#### Who are Math Corps Interventionists?

- Math Corps Interventionists serve as AmeriCorps members who focus on solving a societal problem in this case, a gap in foundational math skills. AmeriCorps is often referred to as the "domestic Peace Corps."
- Math Corps Interventionists are individuals engaged in a commitment of service, during the school year, in meeting needs in their local communities through AmeriCorps and are commonly referred to as "members" or "Interventionists."
- Math Corps Interventionists maintain a stable, regular schedule of hours at a site and are supervised by an Internal Coach at the site.
- Math Corps Interventionists are not employees of the school district nor are they paraprofessionals; they may not be used to supplant services provided by the site or school employees
- Interventionists receive a modest living allowance and earn hours of service toward an education award to pay educational expenses at qualified institutions of higher education, for educational training, or to repay qualified student loans.



## IS MATH CORPS A GOOD FIT FOR YOUR SITE?

Good news - Math Corps thrives in a wide variety of contexts. There are a few bare minimum considerations: Does your school serve students in fourth, fifth, sixth, seventh and/or eighth grade? Will your program have been in operation for at least one academic year by 2019-20? Is student contact time sufficient for a Interventionist schedule? Is there support for research-based math interventions to occur during the school day? And one, final, critical factor: Is there someone on your staff with the talent and capacity to serve as the Internal Coach? Please turn to the "Description of Internal Coach" in this document and review it. How will the Internal Coach's schedule reflect time for Math Corps duties (approx. 6-9 hours per classroom per month) plus training? How will you compensate the Internal Coach for required training dates? Mileage? How will you compensate the Internal Coach for time spent on Math Corps duties throughout the year? Name of proposed Internal Coach: Here are some other factors that we'll want to know in order to customize a Math Corps award for your site: What curriculum are you currently using, if applicable, and what assessments do you use and for what purpose? In which space(s) would Interventions occur? To which computer(s) would Interventionist(s) have regular, reliable access? What secure (locked) storage could the Interventionist utilize (for student files, for personal effects, etc.)? Is the Response to Intervention/Multi-Tiered Systems of Support model of service delivery utilized at your site? In what areas (e.g., academic, behavior)? Estimate the number of students who performed below proficiency in math on their previous year's state accountability test. What do we need to know about your district or agency in order to be in compliance with your own district or agency's policies for partnerships? For example, with whom should we work on the following if they come up? We run extensive background checks and cannot pay for or ask Interventionists to pay for any additional background checks Posting open Math Corps Interventionist positions on a district or site employment page (Recruitment contact: Posting a site sign with the AmeriCorps logo, Math Corps logo, and potentially the logo of any funder who is sponsoring the program at your site The Process to Apply To complete a Site Application, please click on this link: http://bit.ly/MathSiteApplication Create a "new user" account, even if you applied last year. You will create your own username/password. Complete the application. You may save partial work and log in prior to March 28, 2019 to finish or make changes. By March 28, 2019: Save and submit the completed application.



#### **EVIDENCE-BASED MATH PROGRAM**

Math Corps is a data-driven program, and it uses assessment data to (a) identify at-risk students, (b) target instruction, and (c) monitor student progress during intervention.

Math Corps developed its strategies in accordance with best practices for math interventions. The strategies Math Corps uses are recommended by national experts, such as the U.S. Department of Education's Institute for Education Sciences as well as the National Mathematics Advisory Panel, and each strategy has a strong research- base. Math Corps developed content and procedures to allow highly trained and coached Interventionists to deliver these strategies to students who need them.

The interventions target key skills for algebra success that align with Common Core and Michigan Math Standards in Number & Operation and Algebra strands. Math Corps focuses on two content strands: (1) Number & Operation and (2) Algebra.

Math Corps provides interventions in three ways, each of which helps develop students' thorough understanding and proficiency with math skills. First, Math Corps builds conceptual understanding. It does so using the evidence-based concrete-representational-abstract intervention approach. This approach explicitly teaches students the underlying meaning of math concepts using manipulatives, drawn representations, and mathematical symbols. Next, Math Corps provides explicit instruction, modeling, and practice in solving word problems. This evidence-based approach provides students the opportunity to apply their conceptual understanding in a meaningful way. Finally, Math Corps ensures students have successful computational skills by other evidence-based strategies that give students instruction and structured practice opportunities.



#### MATH CORPS AND INSTRUCTION IN THE GENERAL EDUCATION CLASSROOM

Math Corps is a supplemental intervention program for students who struggle to reach grade-level proficiency with regular classroom instruction alone. Research indicates that students who struggle in math tend to struggle with fundamental skills in Number and Operations. Further, Math Corps uses instructional strategies that align with research and expert recommendations for supporting students who struggle in the area of math.

Given the relatively focused nature of Math Corps content and instruction, it is critical for schools to recognize that Math Corps **does not** replace or perfectly mirror core instruction. Math Corps is designed to help students develop core skills in math that will allow them to respond better to instruction in the regular classroom, which (1) focuses on a much broader range of content and (2) is associated with a more diverse arrangement of instructional activities. Math Corps differs from regular instruction in important ways and it is critical for sites to be familiar with those differences <u>before</u> partnering with Math Corps.

	Classroom Teachers and Instruction	Math Corps Interventionists and Intervention
Implementers	Certified teachers with training in many instructional strategies	Explicit training with manualized intervention protocols
	Strong knowledge of student learning	Strong knowledge of Math Corps instructional strategies
Students	Reach <u>all</u> students. Work with students who have a wide variety of skills, from very low to very high.	Serve students who meet specific criteria (below grade-level proficiency). DO NOT work with high performing students or students who have very low skills.
Content	Responsible for all grade-level standards and provide instruction to that end.	Target specific common core standards in the area of Number and Operations. Some lessons are at grade-level and others are below grade-level.
		Because Math Corps serves students in many schools, there may be cases in which Interventionists may approach content in a manner that is slightly different than the teacher (e.g., horizontal vs. vertical addition and subtraction).
Instruction	Employ many different instructional strategies, including (but not limited to): - Direct instruction - Cooperative learning - Group activities	Follow a manualized intervention plan. Interventionists <b>model</b> skills, <b>guide</b> students in their use of those skills, and challenge students to demonstrate those skills <b>independently.</b>
	<ul> <li>Classroom projects</li> <li>Homework with feedback</li> <li>Class discussions</li> </ul>	Follow lesson plans that target <b>conceptual understanding</b> , <b>procedural fluency, and basic application</b> .
	<ul> <li>Class discussions</li> <li>"Challenge" problems that require students to apply core math skills</li> </ul>	May not adopt the same instructional strategies as teachers.
Pace and Sequence	Teachers vary in their instructional pacing; however, teachers are often forced to move through the curriculum at a pace that allows them to cover all of the necessary material.	Pacing driven by student performance. Students must demonstrate mastery before moving on to the next standard in the sequence.
	In addition to a broad scope of content, teachers generally follow a sequence of instruction that is consistent with the curriculum adopted by the school.	Follow a manualized sequence. Interventionists may teach concepts after they have been covered in the classroom, but they may also address skills that have yet to be covered. That is the nature of a program that focuses exclusively on one area of math competency.



#### **SUPPORTING ROLES IN MATH CORPS**





#### SITE EXPECTATIONS IN IMPLEMENTING MATH CORPS

- Identify a staff person to fill the role of Internal Coach and allocate sufficient time for the person to attend training and fulfill the responsibilities of Math Corps, including providing on-site supervision and support of the Math Corps Interventionist. Classroom teachers and administrators are typically <u>not</u> good candidates for Internal Coaches because it is difficult to find time to conduct observations during the school day.
- 2. Work in collaboration with Michigan Education Corps staff to find high-quality Math Corps Interventionists for your site. We know the majority of our Interventionist candidates come from our site partner. Your participation in outreach and recruitment is essential.
- 3. Educate teachers about the Math Corps model to capture buy-in and support.
- 4. Welcome the Interventionist to the site, introduce to staff, provide an orientation to the site, etc. In addition, designate Intervention space that allows students to focus on the task. Provide work space for the Interventionist to use, including a locked filing cabinet and computer access.
- 5. Have a mechanism in place to identify 4<sup>th</sup>-8<sup>th</sup> grade students who are in need of additional support to meet state math standards.
- 6. Follow Math Corps' eligibility guidelines to determine which students are eligible for Math Corps services.
- 7. Support the Interventionist's implementation of Math Corps' research-based math interventions.
- 8. Assist Interventionists in creating the Intervention schedule.
- 9. Support curriculum-based assessments to guide instruction and Intervention interventions.
- 10. Oversee progress monitoring for participating students to guide interventions. Interventionists are responsible for using STAR Math, as well as recording this data, and Interventionist logs, into MCDMS, the online data management system used by Math Corps.
- 11. Ensure that Math Corps Interventionists consistently serve a full caseload of students at any given time at minimum 24 students for full-time Interventionists or 12 students for part-time Interventionists.
- 12. Adhere to the exit criteria guidelines set by Math Corps, which establish when a student is ready to be exited from Math Corps services.
- 13. Provide demographic data & state-assigned student ID number for students receiving Math Corps services. Support the Math Corps program in following federal (i.e., FERPA) and state regulations for data security and sharing. A detailed description of data required from the site for participating students is provided in the Math Corps Site Agreement.
- 14. Pay the school participation fee.
- 15. Ensure service site is accessible to people with disabilities.



#### **DESCRIPTION OF MATH INTERVENTIONISTS**

**Role Description:** Math Interventionists serve students (in pairs) who need help building their math skills. They use prescribed, research-based math interventions and conduct progress monitoring to ensure the student is on track. Interventionists *typically* make a one-year commitment to service.

	Math Interventionist
Who is this person?	Someone recruited from the community – a recent college graduate, a parent, a retiree, etc.
What does the Interventionist do at the site?	The Interventionist provides 90 minutes of targeted Math Corps interventions to pairs of students (typically in three 30-minute or two 45-minute Intervention sessions each week).
Are there other things the Interventionist is expected to do?	The Interventionist is required to attend ongoing Math Corps training. Training <i>may</i> occur on Saturday in some locations.
What is the time commitment?	<ul> <li>Full-Time (FT) Interventionist serves 35 hours/week, Monday- Friday</li> <li>Part-Time (PT) Interventionist serves 24 hours/week, Monday, Wednesday, Friday for one semester</li> </ul>
What are the financial benefits?	-Bi-weekly, competitive living stipend -Segal AmeriCorps Education Award up to \$4,266 to pay for college tuition or student loans -Student loan forbearance on federal loans -Health insurance and childcare assistance (FT)
What are the non-financial benefits?	<ul> <li>Serve students every day through one-on-one, research-based tutoring.</li> <li>Gain resume-building professional experience</li> <li>Earn post-secondary credit</li> <li>Serve during the school day- keep evenings free for family time, another job or classes</li> </ul>
How do they get involved?	Interested Interventionists start the process by completing a Math Corps application online at <u>http://bit.ly/2019mimath</u>



### **DESCRIPTION OF INTERNAL COACH**

On-site math coaching is a critical element to the success of Math Corps and its students. The ability to provide adequate coaching support must be carefully considered in becoming a Math Corps site.

Internal Coach Des	Internal Coach Description		
Role	The Internal Coach is designated by the principal and will be trained by Math Corps to provide math support and oversight to the Math Corps Interventionists. Internal Coaches will uphold the Math Corps model and act as a liaison between teachers and Interventionists or Michigan Education Corps program staff.		
Person	<ul> <li>School psychologists, RtI Specialists, math teachers, or math specialists are excellent candidates for Internal Coaches. Classroom teachers and administrators are typically not good candidates for Internal Coaches because it is difficult to find time to conduct observations during the school day. We highly recommend that you do not select a classroom teacher or administrator to serve as Internal Coach.</li> <li>An Internal Coach should: <ul> <li>Be knowledgeable about the use of curriculum-based measurement</li> <li>Be knowledgeable about scripted math interventions (Standard Treatment Protocol)</li> <li>Have time available to dedicate to the program, including attending required training and coaching sessions</li> <li>Be knowledgeable in math instruction</li> </ul> </li> </ul>		
	We recommend that principals be thoughtful about <i>incorporating</i> this responsibility into a staff person's position. Challenges occur when a principal assigns this responsibility to a staff person who already has many other responsibilities.		
Time Commitment	<ul> <li>Average of 6-9 hours of coaching and support <u>per Interventionist</u> per month</li> <li>16 hours of training (new coaches) or 8 hours of training (returning)         <ul> <li>Required training + coaching for 1 Interventionist = approx. 0.1                 <ul> <li>FTE</li> <li>Required training + coaching for 2 Interventionists = approx. 0.15                     <ul> <li>FTE</li></ul></li></ul></li></ul></li></ul>		
Training	<i>New Internal Coaches</i> are required to attend 2 days of training total: 16 hours of Math Corps-sponsored training (held the week of August 19, 2019 with exact dates TBD). This includes Institute training the week of August 19, 2019.		



	<b>Returning Internal Coaches*</b> are required to attend 1 day of training: total 8 hours of Math Corps Institute (held during the week of August 19, 2019 with exact dates TBD).
Responsibilities	Provide an <b>on-site orientation</b> for the Interventionist to introduce them to your site
	Provide support to allow the Interventionist to develop professionally throughout the year, including inviting the Interventionist to participate in <b>professional development opportunities</b> at the service site and in the community
	<b>Complete intervention integrity checklists</b> for each intervention observed, provide feedback to the Interventionist, and submit forms to Math Corps
	<b>Develop a consistent weekly schedule</b> with the Interventionist that accounts for the daily and weekly hours commitment of their position: Full-Time (FT) Interventionist serves 35 hours/week, Monday - Friday; and a Part-Time (PT) Interventionist serves 24 hours/week at the site, M/W/F for one semester. Interventionists should work with a full caseload of students at any given time.
	Work collaboratively with the Interventionist to <b>select and exit students</b> according to Math Corps criteria.
	Ensure the Interventionist is <b>accurately reporting student data</b> , including assessment scores and demographic information
	<b>Consult with the Master Coach,</b> who meets with the Internal Coach and Interventionists to do observations, conduct fidelity checks for assessment and interventions, and review student progress. The frequency of Master Coach visits depending on the site's needs & Internal Coach's experience with Math Corps. Additionally, Master Coaches, Internal Coaches, and Interventionists engage in discussions and review of student data/progress.
	Work closely with Michigan Education Corps program staff and site administration to <b>proactively</b> manage Interventionist performance and address issues as they arise. Interventionists are expected to adhere to site policies and procedures regarding confidentiality, safety, dress code, attendance, etc.
	Participate in <b>special site visits</b> to highlight and demonstrate the effectiveness of the Math Corps program. These site visits may include media, legislators, corporations, and other parties involved in funding
	Approve Interventionist timesheets once every two weeks and complete a Interventionist performance evaluation two times per year
	Complete a <b>semi-annual online program survey</b> and participate in <b>semi-annual site visits</b> with Michigan Education Corps program staff



## **COSTS OF MATH CORPS**

Michigan Education Corps has a site participation fee to help cover program related expenses. This includes Master Coach support, Interventionists and Internal Coach training, and intervention and assessment materials. **The participation fee is \$5000 per Interventionist (regardless if the Interventionist is full-time or part-time).** An invoice will be sent when an Interventionist has been placed in your school. You will be asked in the application to state if the site (or district) will be paying this fee. *Important Note: All Math Corps materials are property of Michigan Education Corps.* 

The expenses incurred by a site while it participates in Math Corps above and beyond the participation fee are considered the site's in-kind contribution to the program.

Description of cost	Math Corps	Site pays *
Site Fee ( per full-time Interventionist, per part-time Interventionist.	pays	✓
Interventionist recruitment efforts	✓	✓
Background checks on Interventionists	✓	**
Interventionist living allowance & benefits	✓	
Worker's Compensation policy for Interventionists	✓	
Interventionist mileage to attend Math Corps-required training	✓	
Interventionist mileage to attend site-required training (if applicable)		✓
Cost of including Interventionists in site-sponsored training		✓
Cost of photocopies of intervention lessons		✓
Misc. supplies used by Interventionist (e.g. markers, paper)		✓
Computer and Internet access for Interventionist		✓
Work space for the Interventionist, including locked file cabinet		✓
Salary of Internal Coach to fulfill Math Corps responsibilities		✓ ***
Payment to Master Coach to fulfill Math Corps responsibilities	✓	
Math Corps manual, including assessment & intervention materials	✓	
Expenses related to Internal Coach's attending of Math Corps training:		
Training content fees for regularly scheduled Math Corps trainings	✓	
Training content fees for make-up Math Corps trainings		✓ (\$75/hr)
Travel expenses (e.g. lodging, , food, parking, materials)	✓	
Salary of Internal Coach to attend training days		✓
Cost of substitute to allow Internal Coach to attend all training days		✓

\* The expenses incurred by a site when it participates in Math Corps are considered the site's in-kind contribution to the program, and must be reported to Math Corps so that the program can meet its federal matching requirement.
 \*\* If site or district policy requires a background check above and beyond what is conducted by Math Corps, that fee is not paid by the program, nor may it be passed on to the Interventionist.

\*\*\* Challenges occur when a principal assigns this responsibility to a staff position without concretely opening dedicated time in that position for Math Corps coaching. We recommend that principals be thoughtful about *incorporating* this responsibility into a staff person's position.

Guide to Becoming a Math Corps Site 2019-20



## **PROGRAM TIMELINE**

February 22, 2019	Site Application released online. To receive a Site Application, please click on the link: http://bit.ly/MathSiteApplication
March/April 2019	MEC Math Corps Interventionist application released online
March-early August 2018	Recruitment and selection period for MEC Math Corps Interventionist position
March 28, 2019	Site Application due to Renee Borg at <a href="mailto:rborg@hopenetwork.org">rborg@hopenetwork.org</a>
April 18, 2019	Award Notification and Site Agreements to schools
May 24, 2019	Signed Site Agreement returned to Michigan Education Corps to rborg@hopenetwork.org
June 7, 2019	Internal Coach is identified and registered for Math Corps training – week of August 19, 2019
Week of August 19, 2019	Math Corps Institute for new Internal Coaches (exact dates TBD)
Week of August 19, 2019	Math Corps Institute for returning Internal Coaches (exact dates TBD)
Week of August 19, 2019	Math Corps Institute training for Math Corps Interventionists (exact dates TBD)

Dates included in this timeline are subject to change based on program need.

