

STEM: Best Practices in the East

STEM IS IN, IN THE
EASTERN AREA !!!!!



Mentoring Model ~ Mathematics Sprint Competition

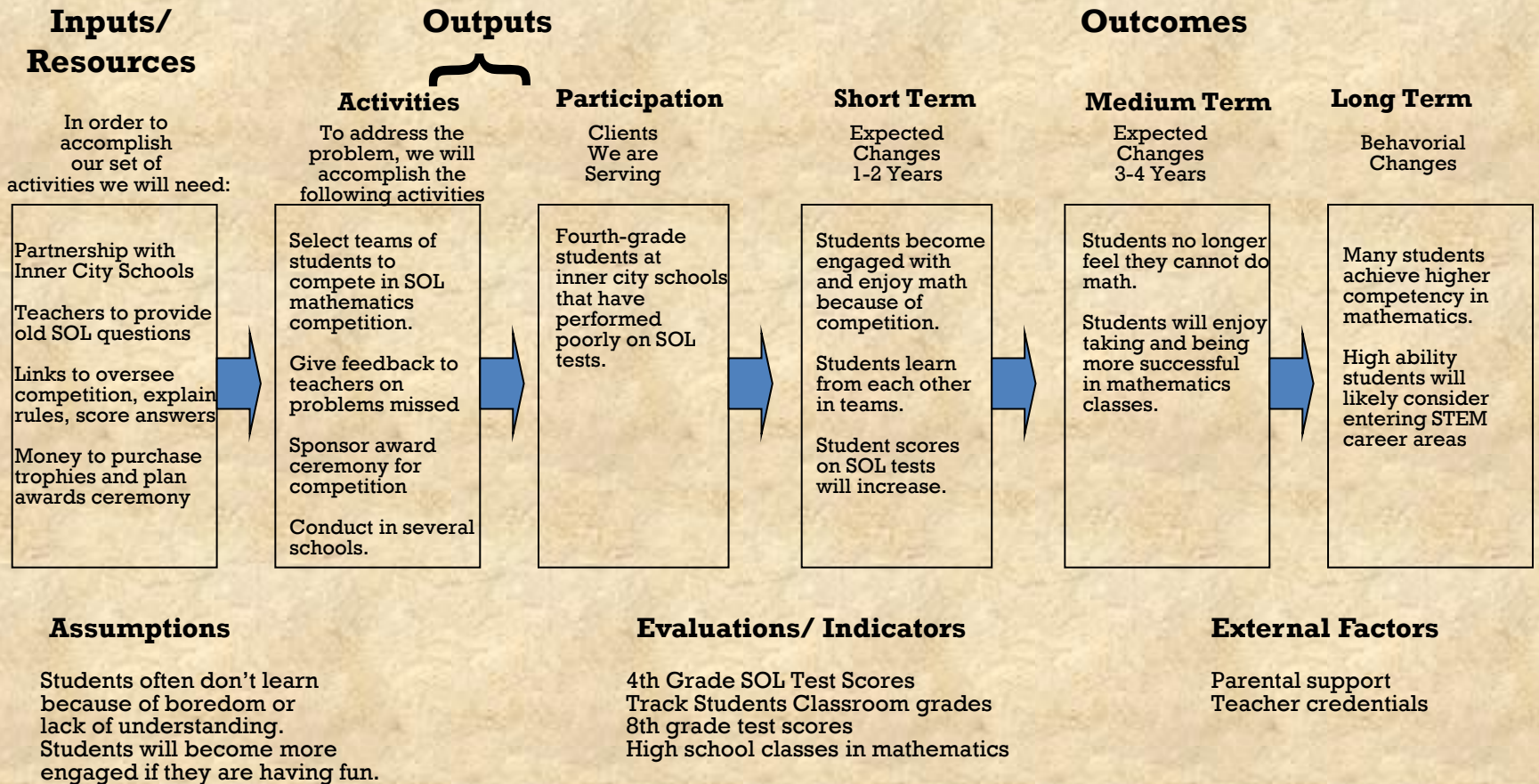


Mathematics Sprint Competition is a fun way to improve attitudes towards mathematics and improve scores on mathematics standardized test.

Service Delivery Model

Sprint Mathematics Competition

Situation: *Poor Mathematics Performance of Minorities Standardized Tests*

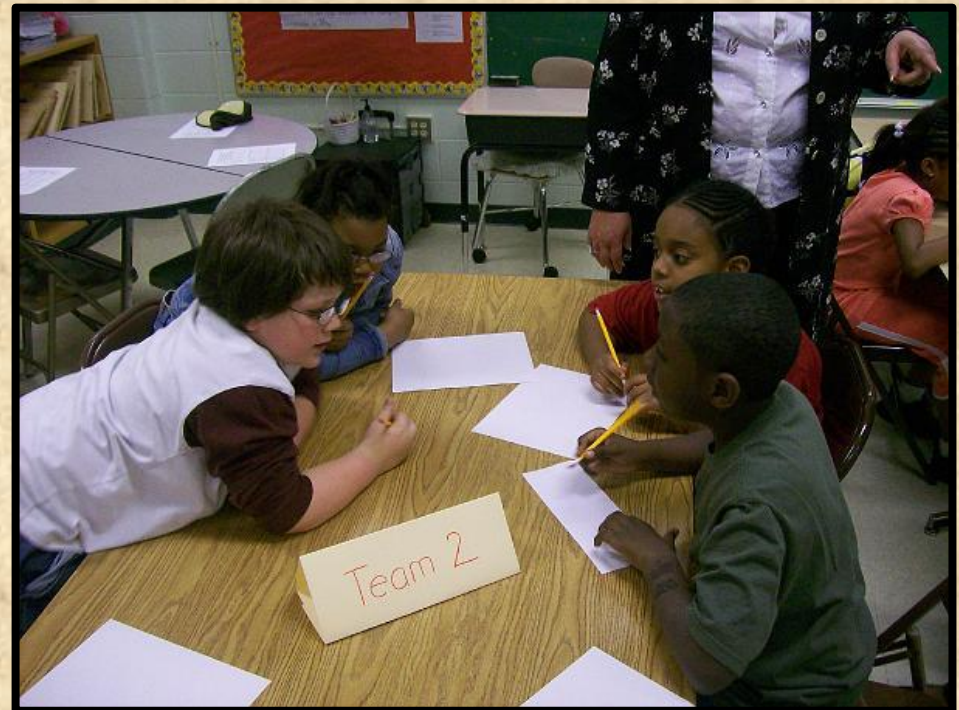


Engaging Youth in Mathematics Competition to inspire achievement (Mathematics Sprint Model)

- Partner with a local school
 - MOA signed by the principal and chapter president *
 - Identification of teachers and classes to participate
- School Provides
 - Recognition of team winners at the school honors program
 - 20 multiple choice mathematics questions from past Standardized Test
 - Access to students
 - Assignment of students to groups of 3-5
 - Answers to the questions
- The LINKS Chapter provides
 - Team mentors
 - Trophies and certificates or medals
 - Scratch Paper and Pencils
 - Scoring assistance
 - Feedback for teachers



Students form teams of 3-5 students. They select a team name or are given a team number. That name or number must be written on each answer turned in.



Students are introduced to their team mentors and are given competition rules

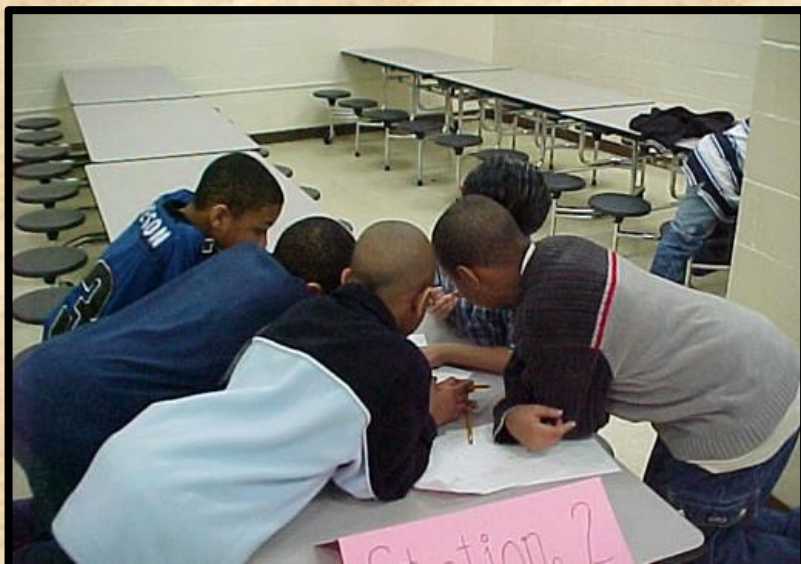
1. The problems are consecutively numbered 1 through 20.
2. All teams will begin with problem 1, then 2, then 3, etc.
3. A team receives another problem only after turning in the previous problem.
4. A team receives 1 point for each correct solution.
5. A team receives 0 points for an incorrect solution.
6. A problem turned in with no solution yields -1 points.
7. Your team name should be on each answer submitted.
8. You have 50 minutes.



Grading sheets are used to record team scores. The team with the highest score wins. Encourage them to try to answer each question

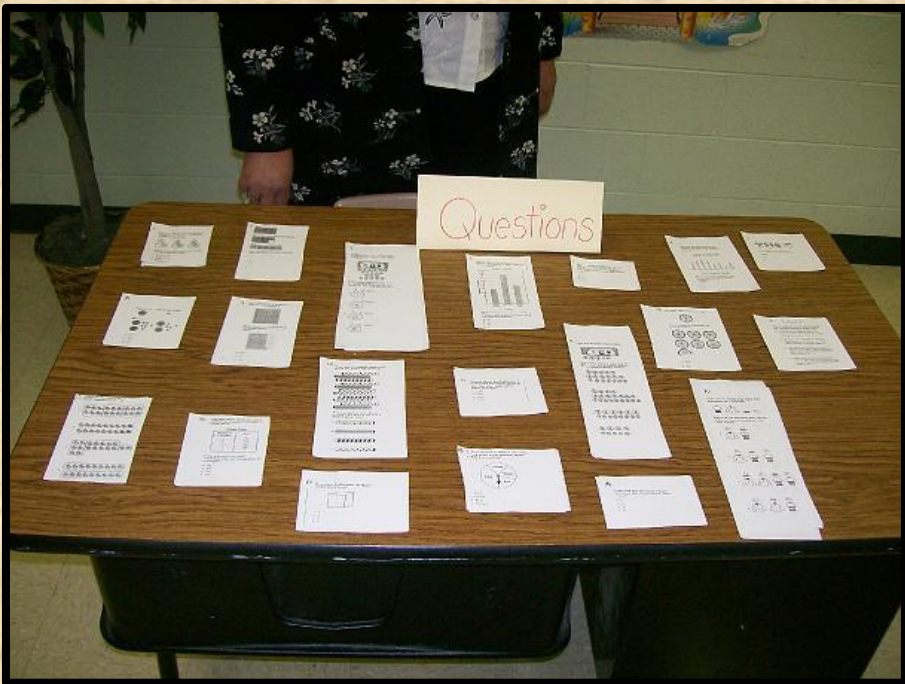


Students work collaboratively bringing their collective wisdom to bear on the problems. The team must agree on a final answer before giving the answer to the team runner.



Grading sheets are used to record team scores. The team with the highest score wins. Encourage them to try to answer each question... 2 points for correct answers and subtract 1 point for wrong answers. One point is subtracted from the score if a team does not provide an answer or does not attempt to answer the question.





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Students select a runner who picks up the questions, returns to their team, returns the team answer to the proctor and picks up the next question.



Team mentors do not assist in answering the questions but encourages the team to discuss the question and talk through it.



- Members of the winning team receive certificates.
- Several "practice sprints" are encouraged before the final competition during which trophies are awarded.
- Between the math sprint competitions teachers are encouraged to cover material for questions that all teams missed.



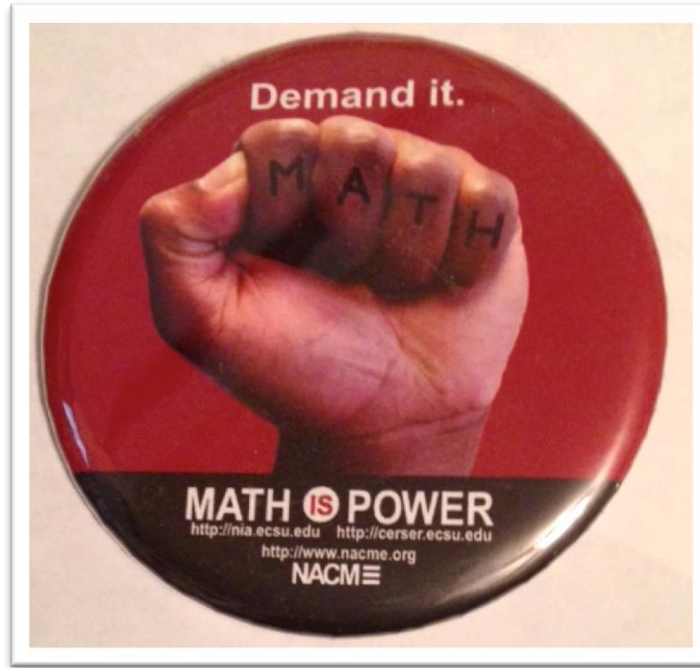
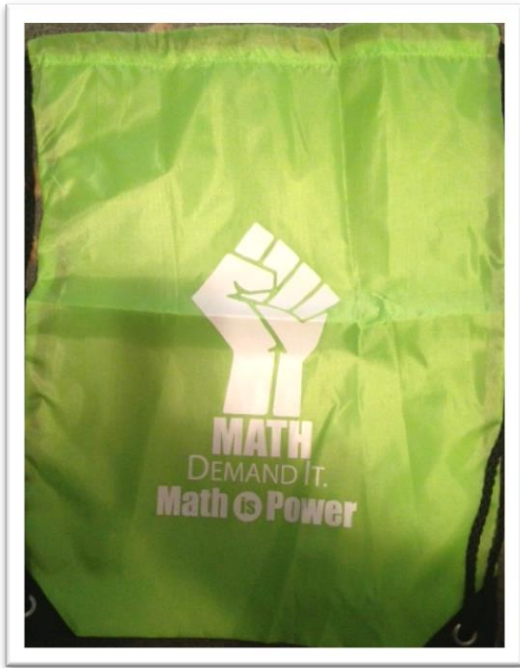
Closing Ceremony





Mathematics Mentoring in a Fun Learning Environment





WHAT'S IN THE MATHEMATICS SPRINT KIT ?

- One trophy for each of the members on the 1st, 2nd and 3rd place teams
- One Certificate of Participation for each student
- One Math Demand It backpack for each student
- One Math Demand It button for each student
- Instructions
- Filler activity with Answer Key
- Grading sheet

Host a Mathematics Sprint Competition

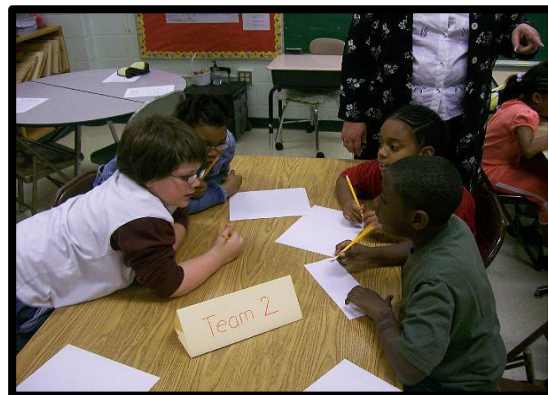
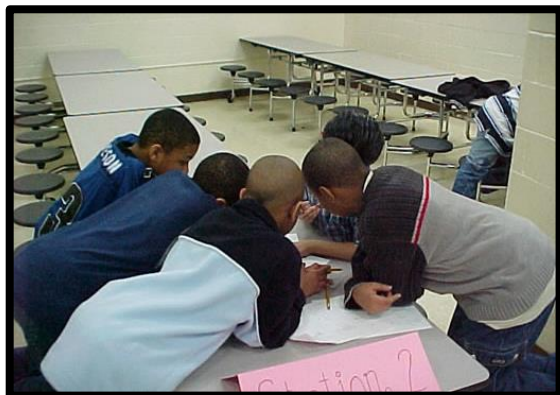
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Mathematics Sprint Competition is a fun way to improve attitudes towards mathematics and improve scores on mathematics standardized test.

A selection of what you'll find in the Math Sprint Toolkit:

- Math Sprint instructions
- Grading sheets
- Certificates
- Trophies
- Filler activities



Keep “STEM-ulating”, as Link Argentina says!

Eastern Area STEM Success

- The Old Dominion Chapter – NASA Sol grant
- The Portsmouth Chapter - NASA Sol grant
- The Silver Spring Chapter - NASA Sol grant
- The Harbor City Chapter - Chevron grant
- The Wilmington Chapter – Math Sprint Model
- The Newport News Chapter’s support for 1 pre-service elementary teacher (\$1000) at the NASA/National Institute for Aeronautics Pre-Service Teacher Institute

STEM Resources:

<http://www.easternarealinks.org/stem.aspx>

- STEM Toolkit
- 3 STEM Webinars: funding ideas & STEM Service Delivery Models

Please contact gnashe@verizon.net to report your chapter STEM activities. We want to celebrate your success.



Delivering and Sustaining Transformational Programs throughout Eastern Area !!!!!

2011-2013 GOALS

- Use technology (webinars, conference calls, and on-line videos) to introduce chapters to STEM mentoring models which promote achievement in mathematics.
- Conduct a workshop for 100% of the chapters at the 2013 Eastern Area (EA) Conference on STEM mentoring models.
- Establish a STEM initiative award for chapters.
- Establish a link on the EA website by Dec. 2012 containing STEM resources and opportunities for partnerships with the private sector.



Online Resources for the Math Sprint Model

- MOU
- Math Sprint instructions
- Grading sheets
- Certificates
- Filler activities

View examples of a Competition at:

<http://wnyt.com/article/stories/s3452078.shtml>

http://mmt.cs.ecsu.edu/nia_photo_library/09summer/igarss09/slides/090720-igarss09-297.html