

Math Machines Workshop

Connecting Math, Science and Technology

5-Day Institute: June 14th – 18th, 2010 (Monday through Friday, 8:00 – 4:00)

Two day *nspire*/84 training July 13th and 14th, 2010

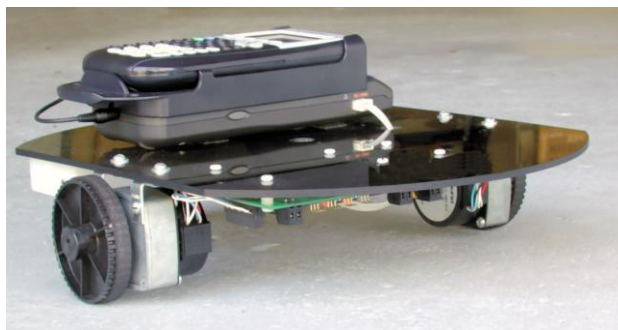
One-Day Follow-Up: Saturday, Nov. 6th, 2010 (tentative date)*

Tri-Rivers Career Center

2222 Marion-Mt. Gilead Road (St. Rt. 95); Marion, OH 43302

Overview:

Teachers of mathematics, science and technology are invited to build a calculator-controlled Science And Math (SAM) vehicle and two other “math machines” for use in their classroom. They will learn to use the SAM vehicle and other materials in activities where students apply mathematics and science concepts to authentic, work-related tasks. The SAM vehicle and other math machines give an immediate, physical expression to mathematical functions.



Who Should Participate?

Applicants should be teachers (grades 7-12) of Math, Science, or Technology in Ohio public schools who want to use authentic real-world activities in their classrooms. Preference will be given to teams of teachers who can continue to collaborate during the school year. **No prior experience with calculators or electronics is required!**

What Will Participants Take Back to their Classrooms?

Participants will make-and-take the SAM vehicle, a Pointer and an RGB Color Mixer, and CBL II with 3 probes. Each participant will receive a CD with classroom activities and the necessary computer and calculator programs. If purchased separately, the cost for this equipment would be over \$1000.

What Do Participants Provide?

Participants should also bring a TI-83, TI-84 or *nspire* with 84 face plate calculator (any version) that will connect to the Vernier CBL2 included.

Participants are also encouraged to bring a personal or school laptop computer on which the calculator programs can be stored and edited. (We will also provide computer software which allows participants to download, edit and transfer calculator programs.) Teachers will be provided additional robot programming using the Ti *nspire*/84 graphing calculator in a two day training session.

* There will be an alternate "follow-up session" on Tuesday, August 10 for teachers who need to complete academic credit before the end of summer.

What about Expenses?

Thanks to support from the Martha Holden Jennings Foundation, the fee is only \$300, including the workshop, three Math Machines, CBLII with 3 Vernier probes and the control software. Morning and afternoon snacks will be provided; travel and meals are the responsibility of the participants or their school.

Can I Earn Credit for the Workshop?

Participants will have the option of receiving graduate credit through Ashland University.

How Do I Apply?

Complete the attached application form and submit it as soon as possible. Selection of participants will begin April 20, 2010 and continue as long as space is available.

For additional information, please contact:

Dr. Fred Thomas
Learning with Math Machines, Inc.
1014 Merrywood Drive
Englewood, OH 45322

Voice phone: 937-832-0792

Fax: 614-455-0856

Email:

fred.thomas@mathmachines.net

Web: www.mathmachines.net

Ritch Ramey
Tri-Rivers Career Center
2222 Marion-Mt.Gilead Road
Marion, Ohio 43302

Voice phone: 740-360-8156

Fax: 740-389-2963

Email: rramey@tririverscc.org

Web: www.tririvers.com

Workshop Facilitators:

Fred Thomas, Physical Science, Learning with Math Machines

Robert Chaney, Mathematics, Sinclair Community College

Ritch Ramey, PLTW Engineering Instructor, Tri-Rivers Career Center

Sponsored by the Martha Holden Jennings Foundation

in cooperation with **Tri-Rivers Career Center**

Additional support is provided by
Vernier Software and Technology

This material is based in part upon work supported by the National Science Foundation under Grant No. DUE-0202202. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.



Math Machines Workshop

Connecting Math, Science and Technology

5-Day Institute: June 14th – 18th, 2010 (Monday through Friday, 8:00 – 4:00)

Two day Inspire/84 training July 13th and 14th, 2010

One-Day Follow-Up: Saturday, Nov. 6th, 2010 (tentative date) *

Tri-Rivers Career Center

2222 Marion-Mt. Gilead Road (St. Rt. 95) Marion, OH 43302

Name: _____

School: _____ Position: _____

School Address: _____

City, State & Zipcode _____

Home Address: _____

City, State & Zipcode _____

School Phone: _____ Home Phone: _____

School E-mail: _____ Home E-mail: _____

If you are applying as part of a team, list the names of the other team members below.
(Each individual must submit a separate application form.)

What is your primary teaching area? Mathematics Science Technology

Other (Please specify) _____

How long have you been teaching in this area?

What subjects and levels do you teach regularly?

In what ways do you expect that you and your students will benefit from this workshop?

(Continued on reverse)

* There will be an alternate "follow-up session" on Tuesday, August 10 for teachers who need to complete academic credit before the end of summer.

If you want, describe an aspect of your background, your expertise, your personality or anything else that would help you in contributing to the success of this workshop.

Selection of participants will begin April 20, 2010 and continue as long as space is available.

*Checks should be made payable to; **Tri-Rivers Career Center***

Mail, fax or email the completed application to:

Tri-Rivers Career Center
:Ritch Ramey
2222 Marion-Mt.Gilead Road
Marion, Ohio 43302

Voice phone: 740-360-8156
Fax: 740-389-2963
Email: rramey@tririverscc.org
Web: www.mathmachines.net

Workshop Facilitators:

Fred Thomas, Physical Science, Learning with Math Machines
Robert Chaney, Mathematics, Sinclair Community College
Ritch Ramey, PLTW Engineering Instructor, Tri-Rivers Career Center
Doug Roberts, Professional trainer, Texas Instruments

Sponsored by the Martha Holden Jennings Foundation

in cooperation with **Tri-Rivers Career Center**

Additional support is provided by
Vernier Software and Technology

This material is based in part upon work supported by the National Science Foundation under Grant No. DUE-0202202. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

