

2009 PROM/SE-SMART Summer Mathematics Academy for K- 8 teachers

June 22- 25, 2009 (Monday - Thursday)

Courses include:

Whole Numbers (K-4): This course explores how students think about numbers, strategies for developing understanding of place value and for helping students gain fluency in operating with whole numbers. Building on the indicators/benchmarks, teachers consider the role of numbers in the mathematics curriculum and what is needed to teach it effectively. Teachers learn how to develop students' abilities to think and reason; build students' number sense, computation, and problem-solving skills; and organize instruction for whole class, small group, and individual learning.

Geometry and Measurement I: (3-5) This course engages teachers in the mathematics of perimeter, area and volume, laying out a coherent trajectory for the key concepts, including some core geometric relationships involving lines and angles. Participants examine different attributes of size, develop facility in composing and decomposing shapes, and apply these skills to make sense of formulas for area and volume. They also will explore conceptual issues of length, area, and volume, as well as their inter-relationships.

Fraction and Decimal Operations: (4-7)

Fractions, decimals and percents are central elements in upper elementary and lower secondary mathematics. Participants consider strategies to help students operate with fractions, decimals and percents and to exploit the connections among the different representations in ways that enhance student learning. Suggestions from research provide underlying guidelines for the activities.

Proportionality Across the Strands -Number, Algebra, Geometry: (5-8) Proportional

reasoning is important for students to learn, though studies have indicated that utilizing proportional thinking is more difficult for students than additive thinking. Participants will consider strategies to help students develop and apply proportional reasoning to concepts such as ratio, proportions, rates, scale factors, congruence, and similarity. Applications of proportional reasoning include problems in banking, science, and the arts.



Academy Details:

Audience: K-8 mathematics teachers and administrators: principals, curriculum directors, and superintendents are invited

Cost: FREE, but registration is required. Light breakfast and lunch provided daily on site.

Stipend Payment: \$75/day from MSU

Location:

Corporate College East 4400 Richmond Road Warrensville Heights, OH 44128

Daily Schedule:

Registration: 7:30-8:00 am and continental breakfast Program Begins: 8:00 am Program Ends: 4:00 pm

Registration: Registration limited to 40 participants per class. Participants must attend the entire 4 day session.

Graduate Credit: Two semester hours graduate credit will be available through Ashland University

Register by May 29. A form is attached.

Send to: Jamie Milne

Jamie.milne@ideastream.org

Phone: (216) 916-6438 Fax: (216) 916-6439

Participating District - Seat Allocation - (based on number of students)

Beachwood = 3 Bedford = 8 Berea = 19 Brecksville = 11 East Cleveland = 10 Euclid = 14

East Cleveland = 10
Euclid = 14
Mentor = 21 (A w
Newbury = 3 a dis
Olmsted Falls = 8 of it
Orange = 5 from

Painesville City = 7 Parma = 30 Richmond Hts. = 4 South Euclid / Lyndhurst = 11 West Geauga = 6

(A waiting list will be maintained. If by May 29th, a district does not have teachers registered for all of of its allocated seats, teachers from other districts from the waiting list will be registered.)

TEACHERS SHOULD REGISTER BY MAY 29TH!

PROM/SE is supported by the National Science Foundation under EHR-0314866 www.promse.msu.edu

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Summer Mathematics Academy for K- 8 teachers

Please register by May 29 by sending this form to: Jamie Milne, Jamie.milne@ideastream.org, Phone: (216) 916-6438, Fax: (216) 916-6439

I will be attending the following 4 day session:

| Whole Numbers: K-4 |
| Geometry and Measurement I: 3-5 |
| Fraction and Decimal Operations: 4-7 |
| Proportionality Across the Strands: 5-8

| Please indicate a first choice and a second choice using a #1 and #2 in the box

| Participants must attend the entire four day session. Registration limited to 40 participants per session. A waiting list will be maintained.

| All sessions held at the Corporate College East, 4400 Richmond Road, Warrensville Heights, OH 44128

| PROM/SE Associate |
| School: ______ |
| District: _____ |
| Home mailing address: (summer confirmation letters sent) |

City _____ State ____ Zip code_____

Email address: (most frequently used)_____

Home Telephone: _____

Grade level(s): _____

Course(s) taught: _____