



ONLINE



**TEACHERS
DEVELOPMENT GROUP**

A non-profit organization
dedicated to improving
all students' mathematical
understanding and achievement
through meaningful, effective
professional development

Using Patterns to Develop Algebraic Thinking in Middle Grades

ABOUT THIS ONLINE WORKSHOP

This workshop provides an opportunity for middle grades educators to explore the use of patterns to develop their students' capacity to think algebraically. You will explore ideas and questions related to the nature of algebraic thinking, the relationship between mathematical thinking and algebraic thinking, and methods for encouraging the development of algebraic thinking in middle school students. You will interact online with other workshop participants and your instructor to discuss readings, classroom video clips, and examples of student work while learning to –

- recognize and build on opportunities for algebraic thinking in a variety of mathematical contexts
- analyze your students' algebraic thinking
- pose questions that foster the development of algebraic thinking

A relevant class project will support you in incorporating algebraic thinking in your everyday instruction.

PARTICIPANTS

Middle grades teachers of mathematics, math coaches, curriculum and professional development specialists, special educators, and instructional assistants. Participation by school/district teams is encouraged. To complement the online work, teams may wish to meet face-to-face to explore course math tasks and/or readings and assignments.

SITE

Online

INSTRUCTOR

SHARON RODECAP teaches mathematics at Linn-Benton Community College. Sharon has a special interest in working with classroom teachers of mathematics. She was a faculty member for the highly successful Oregon Mathematics Leadership Institute, a 5-year National Science Foundation project to deepen K-12 teachers' knowledge of mathematics and school leadership.

DATES

July 1 – August 19, 2009

OPTIONAL UNIVERSITY CREDIT

Mth 810, Portland State University, 3 quarter-hours graduate credit. Pay \$165 for optional PSU credit at first institute session.

QUESTIONS

Contact Julie Fredericks
Email, julie.fredericks@teachersdg.org
Local Phone, 503-650-1914
Toll-free, 877-650-1914

COST AND REGISTRATION

\$300 per person if registration received on or before June 17, 2009.

\$350 per person for registrations received after June 17, 2009.

Register online, www.teachersdg.org, prior to July 1, 2009

Cancellations: If you must cancel, a substitute is welcomed. Otherwise, \$50 is nonrefundable; all additional payments are fully refundable prior to the workshop start date, non refundable thereafter.