

Middle Math in Context with Technology Grades 4-7

This Academy will focus on developing a deeper understanding of various mathematics topics (Algebra and Functions, Data analysis and probability) through the use of graphing calculators. Teachers will learn about the different ways calculators can be utilized to enhance mathematics instruction and student motivation. Special emphasis will be given to real life contexts of math and science in which analysis of data using calculators enhances and extends student conceptual understanding, process skills, and analytical reasoning. Specific calculator functions that will be explored include: Memory Management; basic MATH operations, APPS in science and business; creating GRAPHS and STAT PLOTS; storing and sharing data; and creating TABLES of data. Teachers will be introduced to CBLII's and basic data probes (e.g. motion detector) and their uses in enhancing math instruction through collection and analysis of real data. Current contexts in applied math and science will be introduced. Participants learn strategies for differentiating instruction based on student need and for embedding mathematical processes benchmarks within instruction and assessment. Elements of the Academy contribute to improving student performance on Ohio's achievement tests. TI 73, 82, 83, 84 models of calculators will be referenced during the academy.

Suggested Audience: Teachers of science or mathematics grades 4-7, special education teachers and those from high-need districts are encouraged to attend. No prior experience with graphing calculators is assumed. Teachers will have the use of technology (graphing calculators and probes) during the academy and will be able to borrow a class set of calculators during the academic year.

Institute Dates: June 16-20

Monday	8:30 am - 4:30 pm
Tuesday-Friday	8:30 am - 3:30 pm

Location: 231 Fawcett Hall, Wright State University

Optional Graduate Credit: 1.5 semester credit hours from the University of Dayton

Academic Year Follow-up: 13 hrs. follow-up

(additional 1.5 semester hours) 4:30 – 7:30 in August (TBA)

8:30 – 4:30 WOE Day (October 17, 2008)*

4:30 – 7:30 in May (TBA)

*If your district does not observe WOE Day, the EXCEL Center will reimburse your district for the cost of a substitute up to \$100.