

**North Carolina State University
Activities from the Department of
Mathematics, Science & Technology Education**

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Supporting High-quality Research, Improving Teacher Quality, and Developing Public Understanding of Science

Our 29 faculty are researching a variety of topics, including:

- How children learn fractions
- Use of calculators in learning intermediate algebra
- Use of technology to enhance learning and teaching
- How hand-held probes assist in learning science
- Using digital technology to teach maps and mapping
- Enhancing cognitive understanding through technology enhanced environments
- Factors that influence women to pursue careers in computer science
- Relationship of culture to science learning
- How teachers learn to use technology
- Characteristics of exemplary science teachers
- Improving Teachers' Assessment and Evaluation Skills and Methods

Funded Projects

TechKnow is a \$1.52 million project from NSF that is developing written materials assist 6-12 students in a national technology competition, sponsored by the technology Students Association. These materials integrate math, science, and technology in the curriculum. In it's second year, this project will produce 40 modules that are disseminated by a national publisher. The project ends in 2005.

VisTE is a \$1 million NSF project to develop science curriculum materials that aid in developing individual scientific visualization skills. In its first year or three, this project will produce supplemental curriculum for technology and science teachers.

Glaxo-Smith-Kline has recently provided \$1 million to our College to equip a laboratory and provide outreach to schools relating to technology and research on how technology can improve teaching.

Girls On Track provides educational experiences for middle school girls, helping to keep them enrolled in math and science options. Although the NSF funding (\$750,000) has ended, the project will continue for another year from other funds.

Women in Information Science follows up on the Girls on Track project, seeking to find out why women don't pursue careers in information technology. Funded by NSF for \$700,000, this three year project runs through 2004.