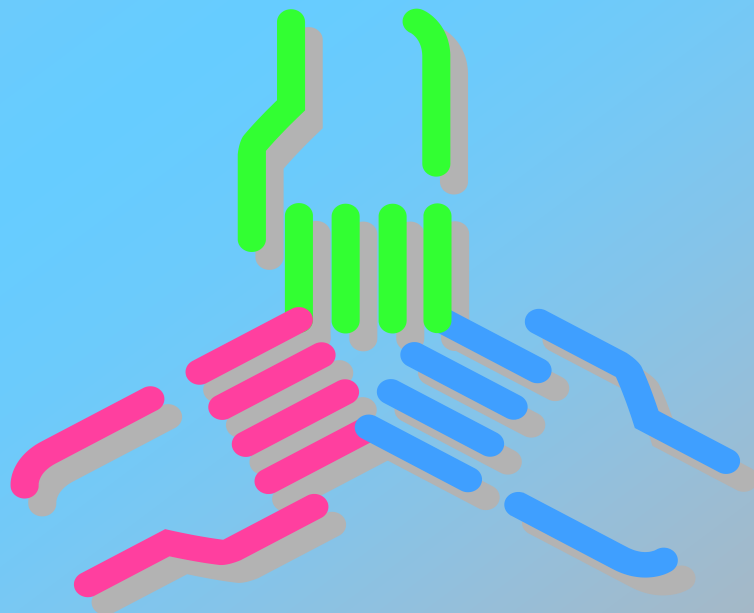


# The Rice University School Mathematics Project



# Building Mathematics Leaders in PreK-12 Education





Rice University  
School Mathematics Project

What is the Rice  
University  
School  
Mathematics  
Project?



# RUSMP Goals

- Work with Houston area teachers of mathematics to improve their mathematical knowledge.
- Promote and model more effective teaching of mathematics that involves greater student involvement in the learning process.
- Encourage the use of technology and manipulatives in the teaching of mathematics.



# RUSMP Goals

- Promote the involvement of classroom teachers in professional organizations and in the mathematics/school reform process.
- Provide a forum for communication and collaboration among teachers, university mathematicians and scientists.
- Form a local mathematics education network.



# RUSMP Goals

- Implement national, state, and local reform efforts in mathematics education.
- Create innovative curriculum in mathematics.
- Provide an awareness of minority and gender issues.
- Creates a multiplier effect by developing the leadership capabilities of mathematics teachers that enables RUSMP to have a significant impact on Houston area teaching.



# RUSMP Teaching Goals

- Develop important mathematical concepts.
- Emphasize student thinking, activities, creativity, and products.
- Make connections with the real world, with other disciplines, and in particular, with science.
- Integrate manipulatives, calculators, and computers.
- Foster discovery and group activities.

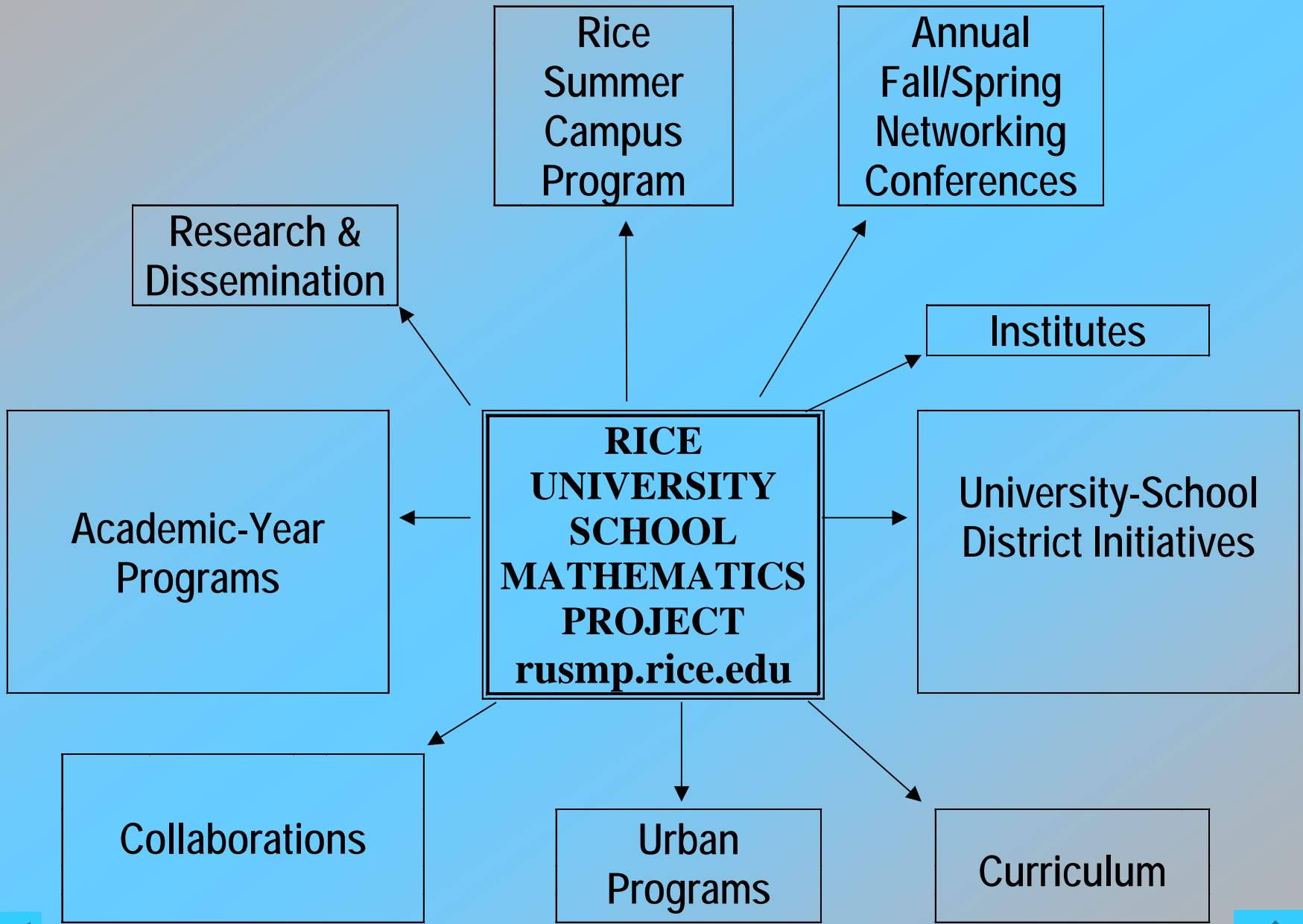


# LEARNING PLAN

<b>Exploratory Activities</b>	<b>CONCEPT</b>
<b>Concept Development Activities</b>	<b>Materials and Resources</b>
<b>Basic Facts and Standard Algorithms Formalized</b>	<b>Originality and Creativity</b> <i>Student Products</i>
<b>Assessment</b>	<b>Written</b> <b>Verbal</b>
<b>Related TEKS/TAKS</b>	<b>Kinesthetic</b> <b>Visual</b>







Research & Dissemination

Rice Summer Campus Program

Annual Fall/Spring Networking Conferences

Institutes

Academic-Year Programs

**RICE UNIVERSITY SCHOOL MATHEMATICS PROJECT**  
rusmp.rice.edu

University-School District Initiatives

Collaborations

Urban Programs

Curriculum



# The RUSMP Summer Campus Program

- RUSMP Master Teachers
- Mathematics Content and Pedagogy
- Curriculum Development



# The RUSMP Urban Program

- RUSMP Support Teachers
- Collaborative planning
- Summer program for at-risk students



# Academic-Year Credit Courses to Support Standards-Based Instruction

- Education 595: Topics in Contemporary Algebra
- Education 585: Contemporary Topics in Middle School Mathematics



# Academic Year Non-Credit Courses to Support Standards-Based Instruction

- Algebra for Elementary Teachers
- Geometry for Elementary Teachers
- Algebra for Middle School Teachers
- Geometry for Middle School Teachers
- Advanced Topics for Middle and High School Teachers
- Calculus for High School Teachers



# TEXTTEAMS Mathematics Institutes

- Algebra I: 2000 and Beyond
- Geometry Across the TEKS
- Algebra II/Precalculus



# Technology Support



- Teachers Teaching with Technology, T<sup>3</sup>, training for middle school, Algebra I and Calculus teachers
- District-level staff development for middle school, Algebra I, Geometry and Algebra II teachers
- Individual support for teachers in the use of calculator technology



# Fall and Spring Networking Conferences





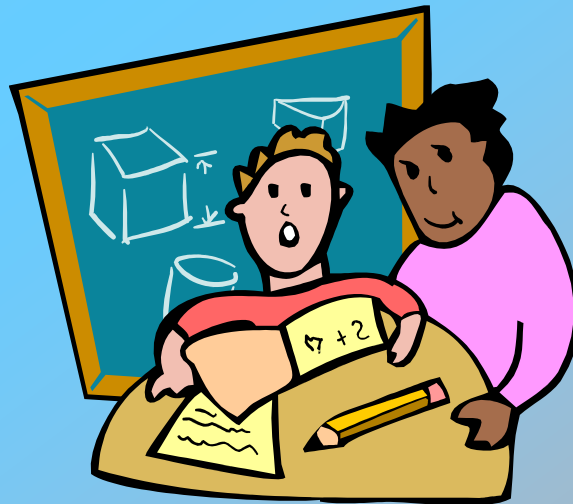
# Impact of RUSMP's Summer Campus Program

- Nearly 3,000 Houston-area teachers have participated.
- Student learning and achievement in mathematics have improved.
- Teacher knowledge of mathematics has increased.
- Teacher classroom beliefs and practices are better aligned to the NCTM *Standards*.



# Impact of RUSMP's Urban Programs

- Increased student interest in mathematics
- Increased student achievement on TAAS
- Reduction of student drop-out rates
- Increased collaboration among teachers



# Recognition of RUSMP's Work

- The National Staff Development Council named RUSMP's Urban Program as one of the top 7 professional development programs in mathematics in the United States (1999).
- RUSMP was highlighted in the report, *Identifying High Performing Texas Schools and Their Methods of Success in Middle School Math and Algebra I End-of-Course Performance* (2001), written for the Texas Education Agency.

