

What we offer!

- Professional Development programs based on analysis of your school data (For math and science teachers grades K-12)
- Leadership Institutes for Teacher Leaders and Administrators
- Programs to involve parents
- Summer, after school, and weekend programs for students



Students communicate ideas and make connections among science concepts.

Comments From Administrators Whose Systems Have Partnered with CATALyST

- *Feedback from teachers and administrators has been spontaneous, plentiful, and extremely positive! Ouachita parish teachers feel as though these programs have greatly increased their abilities and confidence.*

Classroom management and content and pedagogy of teachers have greatly improved. The programs have also had a very positive impact on teacher confidence and enthusiasm.

We would certainly recommend CATALyST to others (as long as you save room for us!). The knowledge, organization, and professionalism of the staff results in the most effective professional development programs we have ever partnered in!

-Ouachita Parish Administrators:
Ron Sasser, Secondary Supervisor;
Tammie Cox and Cynthia Osborne,
Title II Professional Development
Coordinators

- *One of my high school teachers described the Popcorn workshop as the best he had ever attended.*
-Donna White, Science Chair,
El Dorado City School System, AR
- *Teachers think that the high interest activities and materials provided them helped to enhance student interest and creativity in the science classroom. Further, training in test data interpretation helped them to better address student needs.*
-Robert Cockerham, Title I Director,
West Carroll Parish, LA

On-going Professional Development

Chemical Concepts and Connections (C₃) for Teacher Leaders

Returning Participants

June 21 - July 2, 2004 (Orientation June 20)

New Participants

June 7 - 18, 2004 (Orientation June 6)

Concepts In Cellular Biology

June 7 - 18, 2004 (Orientation June 6)

**Special Programs Can Be Designed to Meet
Your Needs!**

Coming Soon!

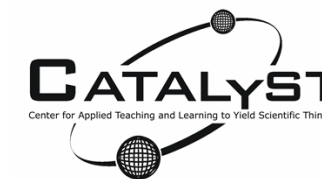
**On-line Professional Development
for Teachers and Administrators**



**Center for Applied Teaching
and Learning To Yield
Scientific Thinking**

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**Center for Applied
Teaching and
Learning To Yield
Scientific
Thinking**

**Consulting and
Professional
Development
Designed to
Meet Your Needs**

*Funded by the U.S.
Department of Education*

<http://catalyst.latech.edu>

Partnerships to improve student achievement.



Teacher implementing group work and hands-on, minds-on science.

With funding from the U.S. Department of Education, Louisiana Tech University has established CATALyST (Center for Applied Teaching and Learning to Yield Scientific Thinking.) One

of CATALyST's main goals is to implement programs and partnerships that will lead to improved teacher quality. Research has shown that student achievement and teacher quality are highly correlated. Effective, long term professional development is the key to improving teacher quality. CATALyST offers a menu of diverse programs and the ability to work with school systems to design professional development programs to meet each system's needs. CATALyST/school system partnerships provide a means to maximize resources as both partners contribute financial and personnel resources to

Examples of Previous and Planned Partnerships

- West Carroll Parish:** 1992 to present — 4 workshops each year for 20 science teachers
- 5 2hr-workshops titled “Examining Student Achievement Data to Improve Student Learning”
- Ouachita Parish:** Series of two 1-day Assessment Workshops plus one workshop on Experimental Design Academic year physical science program (45 hours) for 30 teachers grades 5-8. 3 hr graduate credit awarded.
- Administrators’ Workshop: So This Is What Good Science Teaching Looks Like! Two hour and a half workshops for Principals.
- Patterns, Numbers, and Number Relationships. Grades 3 and 4 (6 hours). Navigating Through Algebra Grades 7-8.
- Avoyelles Parish:** One-day Assessment Workshop
- LINCS Leaders:** Week-long Teaching Through Inquiry Institute



Project LIFE teacher engages students in higher level thinking skills through use of a card sort activity.

- LINCS Math Leaders:** 2-day Leadership Institute
- Delta RSI:** 1 and 2-day Leadership Institutes
- Jacksonville, FL:** 3-day Leadership Institute
- Birmingham, AL:** 2-week Project LIFE plus 3-week Project LIFE Leadership
- DeSoto Parish:** One-day workshop “Tapping into Standards Based Science”
- GEAR-UP Program:** 3-year partnership with 25 schools across Louisiana
- El Dorado Schools:** 1-day workshop “Intergrating Math & Science”

Additional Workshops

- Field Trip in A Box
- Mathematics in Elementary School: Investigations in Numbers, Data, and Space
- Integrating Math and Science
- Experimental Design & Data Analysis
- Introduction to Standards Based Teaching : The Pendulum Puzzle
- Technology in the Classroom
- Using Multiple Intelligences and Learning Styles to Reach All Children
- Family Science and Family Math
- Making the Grade in Math and Science: Introducing Parents to High Stakes Assessment
- Using Graphic Organizers to Improve Students’ Critical Thinking

If you need a special program, call for more information.

Journal of K-12 Research in Science and Mathematics

CATALyST's *Journal of K-12 Research in Science and Mathematics* is a journal that publishes articles written by students in grades 4-12. The articles describe science investigations and/or mathematics projects conducted by the students. The first edition of the journal is scheduled for fall of 2003. The journal is published annually and distributed on CDs or as paper copies when requested and is published online.

CATALyST Conundrums

CATALyST Conundrums is a monthly newspaper column published during the school year. The column targets students in the 4th-8th grades. In each column, a puzzle, problem, or activity is presented. Students are encouraged to solve the puzzle or problem, or complete the activity and send in their answer or results. In the following column, students who solved the conundrum are recognized by name and school and at least one of the submitted answers is published.

For more information, contact:
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