

Archived Information



Professional Development and  
Innovative Tools  
for Learning Science

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# National Science Foundation



## NSF Goal of Investment in People

To develop a diverse internationally competitive, and globally engaged workforce of teachers, scientists, engineers, and well-prepared citizens.

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## Major EHR Activities

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- Instructional Material Development
- Math & Science Partnerships
- Centers for Learning and Teaching
- Information Technology Experiences for Students & Teachers Center

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MSP

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## NSTA

### **“e-Mentoring for Student Success”**

- Targeting beginning teachers
- Providing study groups and seminars
- Potential for national impact and ability to scale-up nationwide.

# Instructional Materials Development



## Active Physics Curriculum Project

- Developed using NSES, research from cognitive and behavioral science.
- Does not compromise the rigors of sound physics content.
- Designed to make physics accessible to ALL students,

# National Science Foundation Large Research Facility

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## LIGO

### *Laser Interferometer Gravitational-Wave Observatory*

#### *Educational Outreach to the teachers of Louisiana*

- Providing professional development
- Summer internships for teachers
- Instructional materials

# Project Lead the Way

- Not-for-profit program created to **enhance the teaching skills** of highly qualified teachers.
- Provides summer training, year long mentoring and curriculum to **high school teachers and counselors**.
- **Provides diverse students** opportunities to learn elements of engineering and engineering technology.

# Advanced Placement Incentive Program

- Created by the O'Donnell Foundation
- Provides teachers of high school AP classes with rigorous professional development, classroom mentoring, team building and financial incentives.
- Scaled down into providing training to middle school teachers
- Success in bringing minority and women into AP classes

# Enhancing Teacher Development



- **A supportive administration** to value and provide quality professional development.
- **Provide materials, textbooks and other instructional materials** which can help facilitate quality science education.
- **TIME** for teacher to analyze and reflect on their own practices.
- **TIME** for lesson study conducted with knowledgeable facilitators.



By creating these pathways for teachers we are likely to inspire and see greater student achievement in science.

We know, not all students will go into STEM careers, but we can hope all students will be scientifically literate citizens of this planet.