

An exciting opportunity is available!

Visualizing
Science

Adapted
Curriculum
Enhancements

McREL

Edinboro U. of PA



Introduction:

Mid-continent Research for Education and Learning (McREL) is working with Edinboro University of Pennsylvania to develop a new instructional framework to help science teachers improve the science knowledge and inquiry skills of students who are visually impaired.

The *Visualizing Science with Adapted Curriculum Enhancements* program (*ACE*) offers you an opportunity to be an integral part of the formulation, modification, and perfection of this unique framework. This study also offers a chance for you to contribute to research that will help all students achieve success in science.

Learn how to assist students with visually impairments achieve in science!

The *Visualizing Science with ACE* program will help you support students with visual impairments as they “visualize” abstract science components in their mind’s eye. The *ACE* program has three primary components:

- Understanding the spectrum of visual disabilities;
- Determining the needs of students with visual impairments in the classroom; and
- Implementing *ACE* visualization techniques: models, tactile graphics, and observation instructions/descriptions.

Eligibility/Requirements:

- Science teachers and itinerant teachers of children with visual impairments in grades 7-12 who have access to at least one visually impaired student.
- Willingness to meet with developers for three sessions over the three year study period (Year One: 4 Days, Year Two: 3 Days, Year Three: 2 Days) in either Edinboro, Pennsylvania or Colorado Springs, Colorado.

Incentives:

- Stipends (\$200 per day) and travel costs (transportation, lodging, and meals) to support teachers’ attendance of annual project meetings.
- Six graduate-level CEUs from Edinboro University of Pennsylvania.
- Contribution to a project with high visibility and the potential for providing educators nationwide with a valuable instructional framework.

For more information, please contact:

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Why should you participate?

Visualizing Science with Adapted Curriculum Enhancements: **A Research Development Project**

What is *Visualizing Science with Adapted Curriculum Enhancements*?

- This project is a joint effort between McREL (www.mcrel.org) and Edinboro University of Pennsylvania (cms.edinboro.edu/) funded by the U.S. Department of Education's Institute of Educational Sciences (R324A080096) to develop an instructional framework for science teachers and/or itinerant teachers to assist students in grades 7-12 who are visually impaired in understanding abstract scientific concepts.

Why participate in *Visualizing Science with Adapted Curriculum Enhancements*?

- You will learn to adapt science lessons for students who are visually impaired in order to provide multiple ways of accessing scientific concepts. These unique ***Adapted Curriculum Enhancements*** include models, tactile graphics, and observation techniques and descriptions with explicit instructions to help students learn how to integrate what they are sensing into their "mind's eye."
- You will be provided a stipend and graduate-level continuing education credits.

Your feedback is valuable!

What is expected of participating teachers?

- You will participate in an annual project meeting to review and evaluate materials and provide feedback to improve the materials. The meetings will include two, 2-day sessions during Year 1 (2008-2009), three days total during Year 2, and two days total during Year 3. In addition to the invaluable insight you will provide the research team through these meetings, you will be expected to use the developed materials with your students who are visually impaired and provide feedback annually through a survey and interview. Development team members will also observe you working with students who are visually impaired.

Your time is valuable and you will be compensated for participating!

What is the timeline for the project?

- Year 1 (2008-2009): You are provided with materials to review and discuss during the first year's meetings (first meeting projected—Colorado Springs, October 10-11, 2008; Edinboro, PA, November 7-8, 2008).
- Year 2 (2009-2010): You begin using the materials with your students who are visually impaired. You will provide data through surveys, interviews, and classroom observations. You will attend the second annual meeting to discuss work to date and make suggestions for improvement.
- Year 3 (2010-2011): You will continue to use materials with your students who are visually impaired. You will provide data through surveys, interviews, and classroom observations. You will attend the final annual meeting to discuss work to date and make suggestions for the future.