NATIONAL CENTER FOR IMPROVING STUDENT LEARNING AND ACHIEVEMENT IN MATHEMATICS AND SCIENCE

NEWS RELEASE

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Teacher-Student-Researcher Collaboration Produces Science Curricula

Now Available On-line

Madison, WI – A new web site offers teachers research-based science curricula — in astronomy and evolutionary biology — for free! The Modeling for Understanding in Science Education (MUSE) web site provides middle school and high school teachers tools that enable students to learn key scientific ideas through rigorous inquiry.

Launched by the National Center for Improving Student Learning and Achievement in Mathematics and Science (NCISLA), the web site provides teachers the equivalent of two 9-week science courses. Genetics curricula will come on-line this summer.

MUSE represents a significant teacher-researcher collaboration. Led by Jim Stewart, NCISLA researcher and science education professor at the University of Wisconsin–Madison, the MUSE team for more than 12 years has worked intensively with teachers and approximately 1250 students at a Wisconsin high school and middle school. Through professional development focused on the study of students' learning, the team developed the new curricula.

Based on research that shows that scientific modeling enables students to learn challenging ideas with understanding, the new curricula are consistent with the goals set forth by the National Science Education Standards and Benchmarks for Scientific Literacy.

Teachers involved in the project note that their professional practice has changed significantly and that they have gained increased understanding of the content that they teach. The curricula strengthen students' capacities to examine and understand key scientific ideas — and to present sound arguments that link data to scientific models. The modeling strategy enables students to learn and engage in the types of thinking and argumentation practiced by professional scientists.

The astronomy and evolutionary biology units include —

- Course materials
- Scientific modeling approaches
- Benchmarks and standards addressed by the MUSE curricula
- Assessment strategies
- Descriptions of the classrooms
- Research reports about students' learning
- Examples of student work

Visit **www.wcer.wisc.edu/ncisla/muse** to learn more. Interested educators should also download ***in Brief: High School Students "Do" and Learn Through Scientific Modeling*** **(Winter 2000)** online at www.wcer.wisc.edu/ncisla/publications.

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