

CYNTHIA M. PASSMORE

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EDUCATION

University of Wisconsin-Madison

Ph.D. Department of Curriculum and Instruction—Science Education
Graduated August 2002

Master's of Science degree in Curriculum and Instruction—Science Education
Graduated May 1999

San Diego State University

Bachelor of Arts degree in Physical Education (Minor in Biology)
Graduated May 1991 Cum Laude

PROFESSIONAL EXPERIENCE

University of California, Davis: School of Education (2002-Present)

Assistant Professor, Science Education

- Teach graduate courses and elementary and secondary science methods
- Co-PI NSF GK-12 Grant: Collaborative Classroom Based Inquiry Project
- Co-PI Sacramento Area Science Project

Wisconsin Center for Education Research (1999-2002)

Project Assistant

- Conducted research on student problem solving on NSF funded grants:
 - *A Longitudinal Study of High School Students' Understanding of Science Content and Practice*
 - *Model Revising Problem Solving in Evolutionary Biology*
- Prepared publications and presentations based on research for dissemination to national audiences.
- Assisted with the conceptualization and implementation of teacher professional development workshops.

National Center for Improving Student Learning and Achievement in Mathematics and Science, Secondary Design Collaborative (1997-1999)

Project Assistant

- Collaborated with teachers and researchers to design and investigate the efficacy of curricula in the areas of evolutionary biology, genetics, and celestial motion.
- Coordinated research and materials development for evolutionary biology project.
- Developed instructional materials for dissemination via the web at <http://www.wcer.wisc.edu/ncisla/muse/>.

Teaching Experience

Assistant Lecturer (Fall 2001)

Edgewood College, Madison, Wisconsin.

- Co-taught secondary science methods course for prospective teachers.

High School Teacher

Monona Grove High School, Monona, Wisconsin (1999-2000)

- Taught freshman and sophomore level integrated science classes.

Crescenta Valley High School, La Crescenta, California (1995-1997)

- Taught biology, physical education, and coached girls swim and basketball.
- Coordinated Health Careers Academy program.
- Advised Associated Student Body and National Honor Society.
- Member of the School Site Council.

Teaching Assistant (Spring 1998)

University of Wisconsin-Madison, Madison, Wisconsin.

- Supervised student teachers in local high schools.

Peace Corps Volunteer— Science and Math Teacher (1992-1994)

Luchenza Secondary School, Luchenza, Malawi.

- Taught biology and math in a rural government boarding school.
- Served as librarian and advised school Wildlife Club & Yearbook.
- Helped build environmental education display in nearby Liwonde National Park.

Undergraduate Teaching Assistant (1989)

San Diego State University, San Diego, California.

- Taught Human Anatomy laboratory section for two semesters with a graduate student.

PUBLICATIONS

Developing Understanding Through Model-Based Inquiry. James Stewart, Jennifer L. Cartier, and Cynthia Passmore. In How Students Learn: History, Mathematics, and Science in the Classroom. National Research Council, 2005

Involving Students in Realistic Scientific Practice: Strategies for Laying Epistemological Groundwork. Jennifer L. Cartier, Cynthia Passmore, Jim Stewart, and John P. Willauer. In: Everyday Matters in Science and Mathematics. Nemirovsky, R., Roseberry, A.S., Soloman, J., Warren, B. (eds.) Lawrence Erlbaum Associates. 2005

A modeling approach to the teaching of evolution at the high school level. Cynthia Passmore and Jim Stewart. Journal of Research in Science Teaching 39 (3) 2002.

High school students' use of meiosis when solving genetics problems. Wynne, C., Stewart, J. & Passmore, C. International Journal of Science Education 23 (5) 2001.

A course in evolution for high school students: The influence of BioQUEST. Cynthia Passmore and Jim Stewart. BioQUEST Notes 11 (2) 2001.

PROFESSIONAL PRESENTATIONS

Learning through lesson study: A case of collaborative, teacher-centered professional development. Passmore, C. Castori, P., Bookmyer, J., Hedman, R. Paper presented at the annual meeting of the National Association for Research in Science Teaching, Vancouver, April 1-3, 2004

Supporting Teachers' Efforts to Implement an Inquiry Framework in K-12 Science Classrooms: Looking at Cases From Research & Practice. Cartier, J., Passmore, C. Barton, A. Presented at the annual meeting of the National Association for Research in Science Teaching, Philadelphia, PA, March 23-26, 2003

Student Learning in Modeling Classrooms: Investigating the Lasting Impact of Understanding. Cynthia Passmore and Jim Stewart. Paper presented at the National Association for Research in Science Teaching Annual Meeting. New Orleans, Louisiana. April 2002.

Balancing Generality and Authenticity: A Framework for Science Inquiry in Education. Jennifer L. Cartier, Cynthia M. Passmore, and Jim Stewart. Paper presented at the Sixth International History, Philosophy and Science Teaching Meeting. Denver, Colorado. November, 2001.

High School Students' Understanding of and Reasoning with Darwin's Natural Selection Model. Cynthia M. Passmore, Karen Mesmer, and Jim Stewart. Paper presented at the National Association for Research in Science Teaching Annual Meeting. St. Louis. March 2001.

Conceptualizing and Developing a High School Astronomy Curriculum With the Modeling for Understanding in Science Education Framework. Andrea M. Barton and Cynthia M. Passmore. Paper presented at the National Association for Research in Science Teaching Annual Meeting. St. Louis. March 2001.

Instructional Practices That Support Inquiry-Based Student Learning. Karen Mesmer, Jennifer L. Cartier, Andrea M. Barton and Cynthia M. Passmore. Paper presented at the National Association for Research in Science Teaching Annual Meeting. St. Louis. March 2001.

Assessing Scientific Arguments Through Posters. Jennifer Cartier, Ralph Zebell, Cynthia Passmore, and Susan Johnson. National Science Teachers' Association Regional Meeting, Milwaukee, WI, October 19-21, 2000.

Development of Reasoning About Variation and Change in Populations. Charles W. Anderson, A. Petrosino, K. McClain, C. Passmore, G. Puttick,. Paper presented at the National Association for Research in Science Teaching annual meeting. New Orleans. April, 2000.

Reasoning about Variation and Change in Populations: Thematic Connections among Studies Charles W. Anderson, Cynthia Passmore, Jim Stewart. Poster presented at the American Educational Research Association annual meeting. New Orleans. April, 2000

Modeling in Evolutionary Biology. Sue Johnson and Cynthia Passmore. Presentation at the Madison Area Science Teacher's Forum. Madison. January, 2000

Developing a Model of Natural Selection with High School Students. C. Passmore, S. Carpenter, S. Johnson, J. Rudolph, J.H. Stewart. Poster presented at the national meeting of the Society for the Study of Evolution. June, 1999. Madison, Wisconsin.

Model-Based Reasoning in an Evolutionary Biology Classroom. Cynthia Passmore and John Rudolph. Paper presented at the annual meeting of the National Association for Research in Science Teaching. Boston, Massachusetts, March 30, 1999.

High School Students' Revising of Meiotic Models. Cynthia Wynne, Jim Stewart, and Cynthia Passmore. Paper presented at the annual meeting of the National Association for Research in Science Teaching. San Diego, California, April 20, 1998.

PROFESSIONAL AFFILIATIONS

- American Educational Research Association
- National Association for Research in Science Teaching
- National Science Teachers Association
- Association for the Education of Teachers of Science