

JANE HEINZE-FRY

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SUMMARY

Highly professional science and environmental educator seeks to provide an innovative hyperlinked concept map of climate change to those who want to learn and teach about the subject. In particular she seeks to expand the map's linkages to organizations addressing climate change issues to enable science and environmental educators to link their program participants to a variety of groups engaged in climate change solutions to make their communities more resilient.

SELECTED EMPLOYMENT

- 10/'16 Lifetime Learning, Sherborn Council on Aging. Development and co-instruction of a short-course for seniors called Climate Change: Science and Solutions.
- 9/ 13- Special Programs Director, Museum Institute for Teaching Science (MITS); research and development of hybrid model for professional development; development of strand maps of the weather and climate-related standards from the Massachusetts Science, Technology, ^ Engineering Standards and a resource-linked concept map of climate change and climate change education resources. Relevant to the proposal are the following links:
Link 1 <http://cmapspublic2.ihmc.us/rid=1QFJ88YMG-M7FBBS-5N06/Climate%20Change%20Bite-Sized2.cmap>
Link 2 <http://cmapspublic2.ihmc.us/rid=1Q1B9HWXL-20CY2R8-3XHS/Solutions.cmap>
Link 3 <http://cmapspublic2.ihmc.us/rid=1QY67BP1H-17HCJTW-4KHT/Regional%20Level%20New%20England%20Solutions.cmap>
- 9/08- Program Director, Museum Institute for Teaching Science (MITS): oversight of two-week Summer Institute for teachers (facilitate lead educator meetings, coordinate development of syllabi and participant binders, communicate with colleges regarding granting of graduate credits); collaborate with *Reading First* workshops
- '03-'09 Science and Environmental Education Consultant on project work:
- Collaboration with the Massachusetts Department of Elementary and Secondary Education to initiate, coordinate, and create strand maps of the Massachusetts Science, Technology, and Engineering Framework
 - Contributing Editor, *Global Environmental Change Report, Business and the Environment*
 - Revision of the Lexington Big Backyard Elementary Program
 - Connecting and Collaborating through Concept Mapping (C3M) Project with Lexington teachers
 - Adaptation and co-instruction of a distance learning Fundamentals of Environmental Education course for Massachusetts educators
 - Use of concept mapping to advise website development on Digital Earth Watch and Climate Change
- '00-'02 Scientist-in-Residence; Emerson College; Environment, Human Body, Nutrition.
- '92-'00 Author; designed and wrote the instructor's manual and ancillaries to accompany G. T. Miller's environmental studies textbooks.

RESEARCH: SELECTED CONFERENCE PAPERS

Heinze-Fry, J.A. 2016. *Application of Conceptual Mapping to Climate Change Education: Moving Toward the 'Adjacent Possible.'* In *Innovating with Concept Mapping: Proceedings of the Seventh International Conference on Concept Mapping*. Alberto J. Cañas, Priit Reiska, Joseph D. Novak, editors. Tallinn, Estonia: Tallinn University.

Heinze-Fry, J.A., J. Gorman, & J. Foster. 2010. *Conceptual Mapping to Facilitate Review of State Science Standards*. In *Concept Maps: Theory, Methodology, and Technology: Proceedings of the Fourth International Conference on Concept mapping*. Viña del Mar, Chile: Academic Press.

Heinze-Fry, J.A. 2004. *Applications of Concept Mapping to Undergraduate General Education Science Courses*. *Concept Maps: Theory, Methodology, and Technology*. Proceedings of the First International Conference on Concept Mapping. Alberto J. Cañas, Joseph D. Novak, and Fermín González, editors. Pamplona, Spain.

SELECTED PUBLICATIONS

Gorman, J. and J Heinze-Fry. *Conceptual Mapping Facilitates Coherence and Critical thinking in the Science Education System*, Chapter 12 in *Cases on Teaching Critical Thinking through Visual Representation Strategies*. L. J. Shedletsky and J.S. Beaudry, eds. 2014. Information Science Reference (an imprint of IGI Global: Hershey, PA).

Kurland, D. J. and J.A. Heinze-Fry. 1996. *Introduction to the Internet for Miller's Environmental Science Texts*. Wadsworth Publishing Co. Belmont, California.

Heinze-Fry, J.A. 1996. *Critical Thinking and the Environment: A Beginner's Guide for Living in the Environment*. Wadsworth Publishing Co. Belmont, California.

Heinze-Fry, J.A. 1993. *Green Lives/ Green Campuses*. Wadsworth Publishing Co. Belmont, California.

Heinze-Fry, J.A. and Students of the Renewable Resources Management Class. 1990. *Comprehensive Renewable Resource Management: Human Ecology at Sweet Briar College*. Copies may be requested: Sweet Briar Library, Sweet Briar College, Amherst, Virginia 24595.

EDUCATION

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| Cornell University – Ph.D. in Science and Environmental Education | (1987) |
| University of Michigan – M.S. in Environmental Education | (1978) |
| Bucknell University - A.B. in Biology and German | (1974) |

HONORS

Phi Kappa Phi, Kappa Delta Pi, Phi Sigma, Delta Phi Alpha

LEADERSHIP

Climate Literacy and Energy Awareness Network: review submissions for vetted CLEAN resources; collaborated on education resources to accompany the National Climate Assessment.

Coordinator and Co-Presenter, *Engaging Classroom Teachers through the new Science, Technology/ Engineering Framework*, Massachusetts Environmental Education Society.

Co-Presenter, *Inquiry-based Investigations & Informal Settings: Integrating Resources from Museums and Centers into the Classroom*, Massachusetts Association of Science Teachers Conference.

Presenter, *CmapTools for Teachers*, Workshop for Middle School Science Teachers, Newton Public Schools.

Co-Presenter and Moderator, *Windows into What Students Know*, Short Course at National Science Teachers Association Conference.

Workshop Co-Presenter, *Using Concept Maps for Conceptualizing "Community" and Collaborative Problem Solving*, New England Environmental Education Association.

Workshop Co-Presenter, *Excellence in Environmental Education Guidelines for Learning K-12*, Massachusetts Association of Science Teachers and Maine Environmental Education Association.

Secretary's Advisory Group on Environmental Education (SAGEE), Co-Chair; Convener, Higher Education Committee; Environmental Literacy Subcommittee

Lexington Public Schools: Co-Coordinator, Bowman's Big Backyard, Science Curriculum Review Committee; science fair judge

Event organizer, *Global Warming: 20th Celebration of Earth Day*. Sweet Briar College: Environmental Studies Department.

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