

NSF-Sponsored WebQuest Strategies to Teach Environmental Sustainability

"Sustainability for Community Colleges:
Curriculum, Culture, Conservation
Cornell University – 8/8/07

NSF –CCLI Project with NJHEPS

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WHO IS NJHEPS?

- NJ Higher Education Partnership for Sustainability (over 40 institutions)
- Dedicated to practicing the principles of environmental sustainability on campuses
- In 2001 all 56 NJ College Presidents signed a Greenhouse Gas Reduction Protocol at their own institutions
- Annual conferences on global warming, energy reduction, sustainable education, environmentally preferred purchasing, etc.

Key Objective: Teaching Sustainability Principles

- Realize that environmental problems are complex with interrelated components
- Study local NJ problems of global significance
- Reinforce interdisciplinary perspectives
- Use scientific research & critical analysis before decision-making
- Involve active group learning & role-playing
- Utilize available Internet and audiovisual resources in a structured approach

HOW? USE WEBQUEST STRATEGIES !

- Inquiry-based WebQuest model developed by Bernie Dodge (San Diego State)
- Utilized by Angela Cristini in two NSF projects on remote sensing and heavy metal contamination (rst2.edu)
- Used by NJHEPS to deal with critical environmental issues in NJ caused by development
- NJHEPS received a 2004 NSF-CCLI grant to develop 4 WebQuest modules dealing with environmental sustainability education

FOUR CRITICAL NJ ISSUES

- The Highlands Watershed and Protection Act of 2004
- The Meadowlands and Xanadu Development
- Renewable Energy Efforts in NJ
- Sustainable Communities in the State –
- Redeveloping Brownfields

THE WEBQUEST PHASES

- Introduction: a compelling question
- Tasks: an attention-demanding scenario with tasks for students to complete
- Process: interdisciplinary strategies to investigate issues
- Resources: Internet based bibliography and AV support
- Conclusion: Present resolution and find closure
- Evaluation: Assess the solutions using rubric

