B-WET Program

"Meaningful" Watershed Experience

The Monterey Bay Watershed Education and Training Program defines a "meaningful" watershed experience as consisting of the following elements:

a. "Meaningful" watershed experiences should make a direct connection to the marine or estuarine environment:
Experiences should demonstrate to students that local actions can impact the greater marine environment. Experiences do not have to be water-based activities; as long as there is an intentional connection made to the watershed, water quality, and the coastal and marine environment, watershed experiences may include terrestrial activities (e.g., erosion control, buffer creation, groundwater protection, and pollution prevention).

b. "Meaningful" watershed experiences are an integral part of the instructional program:
Experiences should be clearly part of what is occurring concurrently in the classroom. The experience should be part of the curriculum and be aligned with the Academic Content Standards. Experiences should occur where and when they fit into the instructional sequence.

c. "Meaningful" watershed experiences are project-oriented, hands-on, and investigative:
Experiences should be centered around questions, problems, and issues and investigated through data collection, observation, and hands-on activities. Experiences should stimulate observation, motivate critical thinking, develop problem-solving skills, and instill confidence in students.

d. "Meaningful" watershed experiences are part of a sustained activity:
Experiences should not be tours, gallery visits, demonstrations, or "nature" walks. "Meaningful" experiences are part of a sustained activity that stimulates and motivates the student from beginning to end. Experiences should consist of more than just the watershed experience. Though an watershed experience itself may occur as one specific event, occurring in one day, the total duration leading up to and following the experience should involve a significant investment of instructional time. An experience should consist of three general parts - a preparation phase; an outdoor phase; and an analysis, reporting phase. Projects should provide teachers with the support, materials, resources, and information needed to conduct these three parts. The preparation phase should focus on a question, problem, or issue and involve students in discussions about it. The action phase should include one or more watershed experiences sufficient to conduct the project, make the observations, or collect the data required. It is strongly encouraged that the action phase includes restoration projects or activities that result in the environment changing. The reflection phase should refocus on the question, problem, or issue; analyze the conclusions reached; evaluate the results; assess the activity and the learning; and include sharing and communication of the results.

e. ‘‘Meaningful’’ watershed experiences reflect an integrated approach to learning:
Experiences do not have to be based solely on science disciplines. Experiences should involve the use of materials, resources, and instruments to address multiple topics, such as maritime heritage, history, economics, math, English, art, and the cultural significance of our natural resources. Experiences make appropriate connections between subject areas and reflect an integrated approach to learning.

f. Projects involve external sharing and communication:
Projects should promote peer-to-peer sharing and emphasize the need for external sharing and communication. Projects should include a mechanism that encourages the students to share their experiences with other students or with the community, e.g., through a mentoring program, newsletters, journals, or community presentations.