A Simulated Archaeological Dig

by
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As content area teachers, we realize the importance of relating the content to situations that give it personal meaning; not allowing it to exist as merely a mass of memorized facts. Integrated lessons provide excellent opportunities for the application of knowledge and skills to real-world experiences.

A simulated archaeological dig has served as the centerpiece for our first attempt at integration on a large scale. Our site models a typical Native American earthlodge which has been abandoned and burned by prairie fire. The site includes artifacts of many kinds: stones, baskets, pottery, wooden utensils, metal implements, shells, plant and animal remains. The site also includes features such as cache pits, fire pits, and charred support posts. The site is forty feet by forty feet and can accommodate 40-50 "little diggers" at a time.

As project developers, most of the initial integration took place in Rex Anderson's social studies class and my science class. Students drew from the Plains Native American experience as they investigated the traits and characteristics of culture. They wrote stories using Native American pictographs, read from an anthology of articles about Native Americans and archaeology, theorized how future archaeologists might view our culture, analyzed artifacts as garbageologists, and practiced piecing together the elements of a culture from the remnants of the past.

In science, students learned the nuts and bolts of good scientific investigation. Knowing the site will be destroyed by excavation, they refined dig techniques that minimized the chance of damage to artifacts and practiced data collection and record-keeping. Artifact location was an integral part of the record-keeping and required 3-dimensional measurements. Students also worked at artifact identification, reconstruction, and preservation. All of these skills were practiced in dig boxes (three feet by three feet) seeded with artifacts and filled with dirt. Upon completion of this activity, students were ready to apply their newly acquired skills at the dig site.

The other three members of the teaching team were also involved. In English, where the study of classical mythology is already a part of the curriculum, several days were spent on the myths and legends of Native Americans. Reading classes enjoyed the novel, My Daniel, which tells of two pioneer children that discover dinosaur bones in the creek near their homestead. Math students participated in scale drawing activities to prepare them for the placement of artifacts on the dig site map. High ability math students received instruction on basic surveying techniques and were put in charge of surveying and staking the dig site. Math students also used a problem-solving computer program, Vincent's Museum.

Two excellent guest speakers added greatly top the project. Cherrie Clarke shared the heritage of the Omaha people and Les Hosick provided cultural and technological information, demonstrations, and displays. A field trip to Lincoln, with activities related to the Native Americans of Nebraska and archaeology, also provided practical examples and applications.

Several special area teachers have become involved. The vocal music teacher located materials on Native American music and dance. The home arts (cooking) teachers have added several Native American dishes to their cooking labs.

Other special area teachers have expressed an interest in becoming involved. The industrial arts teachers may assist students in the construction of scale model tipis and earthlodges. The fine arts teachers have offered to assist students in creating clay pots in the Native American style. The pots would then be fired in underground earth ovens. The physical education teachers have offered to assist in developing a field day, where students participate in traditional Native American games, competitions and contests.

As you can see, our project has grown dramatically over the last several years, evolving into something more than we had originally planned. It is now a multicultural experience where the various disciplines come together with integrated lessons intended to develop a deeper appreciation of the complexity of the plains people. Archaeology is but a single technique used to gather information about their culture.

With this shift in focus, additional components emerge and await development. Science might include activities in lithic (stone) technology and ethnobotany. English might investigate Native American philosophy, religion, and world view while reading the myths and legends. The development of a science/social studies unit for use with the novel Bone Wars and a critical look at the portrayal of Native Americans in literature could occur in reading. Various Native American craft projects could be available in sewing class. Development of a series of mini-trips for interested students to actual dig sites, historical sites, Native American sites and reservations would greatly enrich the experience. Inclusion of Native Americans as guest speakers and community resources, interaction between our students and Native American youth and a forum on the problems of today's Native Americans as they try to maintain traditional values would allow our students to appreciate the Native American's place in today's society.

Much has been done but much remains. Integrated teaching allows this to happen. It would be impossible for a single individual to provide the depth of coverage described in this article. Integrated lessons bring together educators from various disciplines, with a wide range of expertise to develop meaningful learning experiences for children.

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