

Tom Horne Superintendent of Public Instruction

MEMORANDUM

October 1, 2007

To: Elementary Teachers, Science Teachers, and Administrators From: Cheryl J. Lebo, Associate Supt. for Standards and Assessment

Re: New Science Achievement Certificate

Dear Educator:

In our continuing effort to raise awareness of the importance of developing a well-rounded science background for all students, the Arizona Department of Education has initiated a Science Achievement Certificate.

This certificate is very similar to the Reading Achievement Certificate inasmuch as it gives students extra incentive to learn outside the classroom and be recognized for demonstrating added knowledge of a core subject.

The ADE has compiled a list of *suggested* locations throughout the state of Arizona that represent an area of scientific interest and importance. This is not meant to be the definitive list of such areas, but is designed to help teachers, students and parents in their efforts to visit locations that have scientific merit.

For example, a visit to Hoover Dam would give a student appreciation for engineering, physics, geology, and so forth. A trip to the San Bernardino Wildlife Refuge would offer opportunities to explore biology, and time spent in the many science museums statewide holds obvious potential.

In order to receive a certificate, the student should demonstrate some added knowledge of science to the satisfaction of his or her teacher. The ADE does not wish to be prescriptive in this effort. If the educator believes the student has earned recognition, than that student is eligible for the certificate. The goal is to encourage independent study of science.

Below is a list of suggested Arizona science attractions.

Thanks for your help in developing a better appreciation of science among Arizona's public school students.

Sincerely,

Cheryl J. Lebo

Associate Supt. for Standards and Assessment

Arizona Department of Education

SUGGESTED ARIZONA SCIENCE ATTRACTIONS

NORTHERN ARIZONA

Lowell Observatory, Flagstaff
Painted Desert / Petrified Forest, Holbrook
Grand Canyon
Glen Canyon Dam, Page
Page Springs Fish Hatchery, Page Springs
Meteor Crater, Winslow
Sunset Crater, Flagstaff
Canyon de Chelly, Navajo Nation
Arizona Envirozeum, Sedona
Out of Africa, Cottonwood
Museum of Northern Arizona, Flagstaff
Highlands Center for Natural History, Prescott
The Arboretum at Flagstaff, Flagstaff
Willow Bend Environmental Education Center, Flagstaff
Tonto State Fish Hatchery, Payson

WESTERN ARIZONA

Hoover Dam, Mohave County
Hualapai Mountain Park, Kingman
Davis Dam, Bullhead City
Havasu National Wildlife Refuge, Lake Havasu
Cibola National Wildlife Refuge, Yuma County
Kofa National Wildlife refuge, Yuma County
Phelps Dodge Bagdad Mine, Bagdad
Buckskin State Park, Parker
Ahakhav Preserve, Parker Valley
Poston Monument, Poston
CRIT Museum, Parker
Parker Dam & Power Plant, Parker
University of Arizona, VIP Hydroponics Green House (Vicksburg Road)
Cattail Cove State Park, Lake Havasu
Yuma Conservation Garden, Yuma

EASTERN ARIZONA

Phelps Dodge Morenci Mine, Morenci
Mt. Graham Observatory, Safford
Gila Box Riparian National Conservation Area, Safford
Discovery Park, Safford
White Mountain Archeological Center, St. Johns
Roosevelt Dam, Globe
Phelps Dodge Miami Mine and Smelter, Miami
Asarco Mining, Hayden
Alchesay / Williams Creek Fish Hatchery, Whiteriver

SOUTHERN ARIZONA

Kitt Peak Observatory, Pima County
Titan Missile Museum, Green Valley
Catalina State Park, Oracle
San Pedro Riparian National Conservation Area, Sierra Vista
Smithsonian Astrophysical Observatory, Pima County
San Bernardino National Wildlife Refuge, Douglas
Bisbee Mining and Historical Museum, Bisbee
Buenos Aires National Wildlife Refuge, Sasabe
Biosphere 2, Oracle
Amerind Foundation Museum, Dragoon
Kartchner Caverns State Park, Benson
Asarco Mineral Discovery Center, Sahuarita
Gray Hawk Nature Center, Sierra Vista
Southwestern Research Station. Portal

TUCSON

Arizona Sonora Desert Museum
Pima Air and Space Museum
Flandrau Science Center and Planetarium
University of Arizona Mineral Museum
University of Arizona Pharmacy Museum
Tucson Children's Museum
Colossal Cave Mountain Park
Reid Park Zoo
Sonoran Arthropod Studies Institute
Tucson Botanical Gardens

PHOENIX METRO

Arizona Mining and Mineral Museum, Phoenix
Arizona Science Center, Phoenix
Robert S. Dietz Museum of Geology, Tempe
Mesa Southwest Museum, Mesa
Gilbert Riparian Park, Gilbert
ASU Center for Meteorite Studies, Tempe
Boyce Thompson Arboretum, Superior
Desert Botanical Garden, Phoenix
Phoenix Zoo, Phoenix
Wildlife World Zoo, Litchfield Park
Duncan's Family Farms, Goodyear
Challenger Space Center, Peoria