



OKLAHOMA HERITAGE Association
GAYLORD-PICKENS Museum

HERITAGE TIMES

Telling Oklahoma's Story Through Its People

GENEROSITY • INDIVIDUALISM • OPTIMISM • PERSEVERANCE • PIONEER SPIRIT

In **Lesson 6** students will explore some of the personalities that have played a role in Oklahoma's medical and science history.

Featured Oklahomans

Ed L. Calhoon
Gloria Twine Chisum
Kenneth Cooper
Hayden Donahue
J. V. D. Hough
J. Philip Kistler
John Sabolich
Jordan J.N. Tang
Nazih Zuhdi

Supports PASS

Social Studies
Grade 4
Standard 1:1 & 5:1

Oklahoma History
High School
Standard 1:3 & 8:1

Gloria Twine Chisum

Research psychologist, educator, and administrator, Muskogee native Chisum graduated from Howard University before earning her Master's and Doctoral degrees from the University of Pennsylvania.

Chisum acted as manager of the Life Sciences Research Group and head of the Environmental Physiology Research Team at the U.S. Naval Air Development Center. A consultant to all branches of the U.S. Department of Defense, as well as many other organizations throughout the world, she has represented the U.S. government in several conferences held by the North Atlantic Treaty Organization Advisory Group for Aerospace Research and Development.

A recognized authority on visual problems associated with the operation of high-performance aircraft, Chisum has received the Aerospace Medical Association's Raymond F. Longacre Award, the University of Pennsylvania Alumni Award of Merit, and the Scientific Achievement Award.

Elementary Activity: Find Muskogee on the state map and determine the nearest water source.

Secondary Activity: Research the visual problems associated with flying high performance aircraft.



Ed L. Calhoon

A physician, rancher, and political activist Calhoon graduated from Beaver High School, received his BS degree from Northwestern State Teachers College, and his medical degree from the University of



Oklahoma's College of Medicine.

After an internship and general surgery residency at Tulsa's Hillcrest Hospital, he returned to his hometown to open his private practice and serve on the staff of the Beaver County Memorial Hospital for an unprecedented 51 years. The National Health Care Advisory Board in Maryland appointed him as Medical-Surgical Traveler to Great Britain.

Calhoon was a member of the State Regents for Higher Education and was named "Oklahoma Physician of the Year."

Elementary Activity: Explore the counties that make up The Panhandle.

Secondary Activity: Research Oklahoma physicians for any other who has practiced at one hospital for more than 51 years.

Jack Van Doren Hough

Hough is a pioneer of microscopic ear surgery and has perfected several surgical techniques and instruments for hearing restoration and middle ear reconstruction.

Hough was born to pioneer settlers of the Cherokee Strip and graduated from Southeastern Oklahoma State University and the University of Oklahoma School of Medicine. He was instrumental in founding the

Medical Assistance Program (now known as MAP International) to furnish medical assistance and training programs to underdeveloped areas around the world.

With a team, he has developed electromagnetic hearing devices using cochlear implants. He serves as clinical professor of Otolaryngology Head and Neck Surgery at the Oklahoma Health Sciences Center and is the direc-

tor of the Hough Ear Institute in Oklahoma City.



Elementary Activity: Craft a wagon that might have been used in the opening of the Cherokee Strip.

Secondary Activity: Explore some of the locations where MAP International has assisted.

Words of Wisdom
from the
Oklahoma Hall
of Fame

“God gives us talent and opens the door of opportunity to use them, but he sometimes kicks us through the door.”
 -J. V. D. Hough
 Inducted 1990

“The things that I have done that have pleased me most have been such things as the elimination of the bars from the buildings, the elimination of the cages that were used for seclusion...the treatment and rehabilitation of thousands of patients that were listed as incurable...”
 -Hayden Donahue
 Inducted 1968

John Sabolich

Oklahoma native John A. Sabolich embarked upon his career in prosthetics-orthotics at the age of 13 when he began working in his father’s Oklahoma City research and patient care facility learning to fit artificial limbs.

He graduated from New York University’s College of Prosthetics and upon certification returned home to begin the research and development of prosthetic systems which enable amputees to have flexibility, a sense of feel, and range of motion. His expertise has

created a biomedical lab which benefits patients worldwide.

A clinical instructor for the University of Oklahoma Health Sciences Center, he has published technical articles and a book, *You Are Not Alone*, to furnish basic information and encouragement for those facing amputation. His work has been the subject of well-known publications such as *National Geographic* (December, 1989) and *Omni* (February, 1991). He was recognized as a 1998 Pathmaker by the Oklahoma City-County Historical Society and

has often been in the position to donate his services and devices for not only Oklahomans, but amputees from around the world.



Elementary Activity: Discuss possible challenges an amputee might encounter at school.
Secondary Activity: Explore the evolution of prosthetics in the last 50 years.

Kenneth Cooper

Cooper graduated from the University of Oklahoma, OU School of Medicine, and the Harvard School of Public Health.

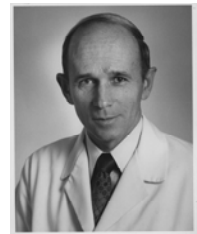
A former Lt. Colonel in the Medical Corps of the U.S. Air Force and Senior Flight Surgeon, Cooper has authored such best-selling books as *The New Aerobics*, *The Aerobics Way* and *Aerobics for Women*. Known around the world as the father of aerobics exercise, he has become one of the most re-

spected voices on the subject of preventive medicine.

He established a combination research facility, health club, and clinic in Dallas, the Cooper Clinic, and his Institute for Aerobics Research studies the link between exercise and one’s lifespan.

He received the Daniel Webster Award for the “most important speech on the most important problems facing the U.S. and its citizens” and the Distinguished Service Award

from the President’s Council on Physical Fitness and Sports.



Elementary Activity: Take a few minutes of each day during a one-week period to exercise as a group.
Secondary Activity: Research the link between exercise and life span.

Hayden Donahue

Donahue was born in El Reno and received his degrees from the University of South Dakota and the University of Kansas School of Medicine.

He was an instructor of Medicine and Psychiatry at the University of Georgia School of Medicine and returned to Oklahoma as the Director of Mental Health. He later served as Superintendent at Central State Hospital in Norman, among other mental health assignments before returning as State Mental

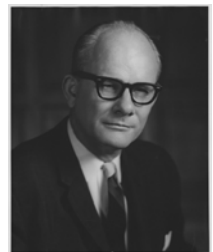
Health Director.

He was a psychology instructor at Oklahoma State University and served as associate professor of psychiatry at the University of Oklahoma School of Medicine. He is most credited as the principal force in altering the direction and treatment of mental health in Oklahoma and across the United States.

Elementary Activity: Calculate the mileage from El Reno,

to the University of South Dakota, to the University of Kansas, and back to Oklahoma City.

Secondary Activity: In reviewing Donahue’s journal articles and research, explore the physical changes in treating mental illness.



Nazih Zuhdi

Zuhdi's main emphasis during his entire career from 1950 to 1999 was in the field of heart surgery, of which he was considered a pioneer.

Recognized internationally for cardiopulmonary bypass designs, open heart surgery, and transplantation, Zuhdi was responsible for the creative work of a double helical reservoir heart-lung machine, an implantable bypass mechanical heart, and a variant pig valve universally used as one of the modalities to replace diseased heart valves.

His arrival in Oklahoma City ushered the era of open heart surgery to the state. He devised and perfected a non-blood prime for the heart-lung machine producing total intentional hemodilution has made successful transplantation possible worldwide.

He founded the Nazih Zuhdi Transplant Institute (NZTI) in Oklahoma City for all types of solid organ transplantation. It has grown to international significance for its preeminent clinical, teaching, and research environments. Among other firsts, Zuhdi performed Okla-



homa's first heart transplant, heart-lung transplant, and single and double lung transplants.

Elementary Activity:

Make a list of heart-healthy foods.

Secondary Activity: Explore the multiple transplants performed at NZTI.

Did you Know? from the Oklahoma Hall of Fame

Nazih Zuhdi was the first surgeon in the world to have a pregnant mother and child survive following open heart surgery. The mother was from Henryetta, Oklahoma.

J. Philip Kistler is credited with changing the practice of medicine by defining the use of MRI imaging in cerebrovascular disease.

Allen E. Greer performed the first coronary artery bypass surgery in Oklahoma, a technique now performed throughout the world – thereby gaining the title, “Godfather of Thoracic Surgery” in Oklahoma.

J. Philip Kistler

A Tulsa native, Kistler is director of Stroke Services at Massachusetts General Hospital and professor of neurology at Harvard Medical School.

At age five, he spent a half year at the Sister Elizabeth Kenney Institute in Minnesota as a quadriplegic with poliomyelitis. He recovered and later graduated with a B.A. from Harvard College before receiving his medical degree from Columbia College of Physicians and Surgeons.

Kistler is the recipient of the C. Miller Fisher Award for outstanding achievement in neuroscience by the American Heart Association and the A. Clifford Barger Excellence in Mentoring Award by Harvard Medical School.

Kistler has 77 original reports and articles which have been



published in various scientific publications and has written 74 invited journal editorials, review articles, and chapters.

Elementary Activity: Design a bumper sticker supporting the American Heart Association.

Secondary Activity: Explore the evolution in the treatment of strokes.

Jordan J. N. Tang

Tang holds the J.G. Puterbaugh Chair in Medical Research at the Oklahoma Medical Research Foundation.

Tang came to Oklahoma from Taiwan in 1955 to attend Oklahoma State University, where he earned a master's degree. Later, he received his Ph.D. from the University of Oklahoma and completed post-doctoral training at the Laboratory of Molecular Biology in Cambridge, England.

Tang joined OMRF, where

he became one of the world's leading experts on proteases, a group of proteins crucial to human health. Over the next 51 years at OMRF, his work has led to a deeper understanding of these vital proteins and to a new treatment for HIV/AIDS, hypertension and, an Alzheimer's drug that is undergoing human clinical trials.

Tang has lectured and taught at 50 universities on five continents and has published more than 200 articles in the

world's leading scientific journals.

Elementary Activity.

Discuss the mission of the OMRF.

Secondary Activity: Research the stages necessary before a drug is made available to the public.



Educational opportunities annually offered by the **Oklahoma Heritage Association** include:

- More than \$400,000 in scholarships to high school students.
- Heritage Week competitions for students in grades 4 through 12.
- Summer Camp for ages 5 to 15.
- Oklahoma Institute for all ages.
- Field trips to the Gaylord-Pickens Oklahoma Heritage Museum—voted Nickelodeon’s Parents’ Choice Best Pick for Teens.
- “I Am Oklahoma” program for students of all ages.
- Excellence in Teaching Oklahoma History awards for educators.
- Celebrating Oklahoma Voices workshops.
- *Oklahoma: Magazine of the Oklahoma Heritage Association* is distributed to high school libraries statewide.

Oklahoma’s Early Territorial Hospital—St. Anthony Hospital

The year was 1898. Two Sisters from the order of the Sisters of St. Francis traveled from Maryville, Missouri to Oklahoma City in search of money to support their local hospital. When they arrived on that spring day, they approached Father Lanslots of St. Joseph’s Catholic Church to petition his congregation for funds. He abided to their wish with one condition, that the money raised would go towards opening a hospital in Oklahoma City as the newly established Territory did not have a hospital and its citizens were dying from lack of care. The Sisters agreed and on August 1, 1898 they opened St. Anthony Hospital. The small house had but twelve beds.

As the city continued to grow so did the demand for health care. And in 1899, the Sisters moved St. Anthony to a larger facility. With twenty-five patient rooms, St. Anthony found it’s home just outside city limits where the hospital still stands today.

With the growth of the hospital, the Sisters’ vision of providing a service to those in need flourished. In 1940, the hospital expanded for the third time bringing its bed capacity to 250, and for the forth and fifth times in the 60s and 70s elevating it to 800.

In 1987, the Sisters of St. Francis expanded their vision of service by joining with the Sisters of St. Mary to form the Franciscan Sisters of Mary. This year, St. Anthony became a member of SSM Health Care, an organization supported by the newly formed order. And in 1998 and again in 2004, St. Anthony showcased its commitment to service and quality by receiving the Oklahoma Quality Award for Excellence. In 2002, SSM Health Care became the first health care organization to receive the prestigious Malcolm Baldrige National Quality Award.

In 2003, St. Anthony renewed its commitment to the Midtown area by announcing a ten-year, \$220 million expansion and renovation project.

Elementary Activity: Discuss the differences between the hospital when it opened more than 100 years ago compared with the facilities today.

Secondary Activity: Research early-day hospitals in other areas of the state. When were they founded? Who founded them? Is the physical structure still in use?

www.oklahomaheritage.com



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