

# BLACK HISTORY MONTH 2014

**African Americans in the Sciences**



**BLACK HISTORY  
IS  
AMERICAN HISTORY**

# HIGHLIGHTED OF BLACK ACHIEVEMENTS

- ▶ The creative contributions in all fields throughout the world.
- ▶ With this background, both Black students and students from other cultures and races can gain a new-found appreciation for this heritage as well as a better understanding of the framework in which ongoing struggles are still taking place.
- ▶ All students need to feel affirmed; need to be aware of the contributions made by Blacks in America

# RATIONALE

Impact the educational outcomes for all students, teachers and families in East Side Union High School District

## Focus Areas

- ▶ The history of black achievement
- ▶ The history and creative output of black peoples in the literary, visual, musical, history, athletics, social studies, sciences and performing arts
- ▶ Improve educational progress and status of African American male and female students ,their nations, and the world.

# WHY BLACK HISTORY MONTH

Black history is still a largely neglected part of American history.

- ▶ "I hear a lot of African American young people say things like, *'How come they gave us the shortest month of the year?'*"
- ▶ "Nobody gave anybody anything." Carter G. Woodson chose February because it includes the birthdays of abolitionist Frederick Douglass and President Abraham Lincoln.

# SELF-ADVOCACY



**Carter Godwin Woodson** - Born in West Virginia in 1875

- ▶ His parents were former slaves and instilled in him the value of education . He went on to earn a degree in literature from Berea College. He was the second African American to earn a doctorate from Harvard University, Woodson's being in history.
- ▶ As a teacher, principal and supervisor of schools, he saw that the history of African Americans was neglected -- even absent -- in curriculum. Determined to change this, Woodson committed himself to the study of the African American experience.
- ▶ Woodson founded the Association for the Study of Afro-American Life and History (ASALH) in 1915, an organization still in existence today. A year later, he launched the *Journal of Negro History*. In 1933, he published the highly regarded book *The Mis-Education of the Negro* .

# WHY BLACK HISTORY MONTH?

- Arrive at an understanding of ourselves as Americans in the most accurate and complete socio-historical context that we can produce.
- As a nation with such diversity, all histories need to be known and all voices need to be expressed.
- Black history provides the binary opposite to all traditional histories.
- As a people we have defended, cleared, built and farmed this country; our presence is well established, but not well-known .
- Students need to feel affirmed; need to be aware of the contributions made by other
- Blacks; need to have role models; and need to understand the social forces which have shaped and influenced their community and their identities

# BLACK WALL STREET (LITTLE AFRICA)

- ▶ Black America's most prosperous community, Tulsa Oklahoma
- ▶ Bombed from the air and burned to the ground by KKK, June 1, 1921, in a period spanning 12 hours
- ▶ The night's carnage left some 3,000 African Americans dead and over 600 successful businesses lost.
- ▶ Among these were 21 churches, 21 restaurants, 30 grocery stores and two movie theaters, plus a hospital, a bank, a post office, libraries, schools, law offices, a half dozen private airplanes, and even a bus system. An estimated 10,000 were left homeless; 35 city blocks composed of 1,256 residences were destroyed.
- ▶ The best description of Black Wall Street, or Little Africa as it was also known, would be to compare it to a mini Beverly Hills. It was the golden door of the Black community during the early 1900s. It proved that African Americans could create a successful infrastructure. That is what Black Wall Street was all about.



# HISTORY



*Tulsa riot*

*6-1-1921*

# MEXICO'S FIRST BLACK PRESIDENT

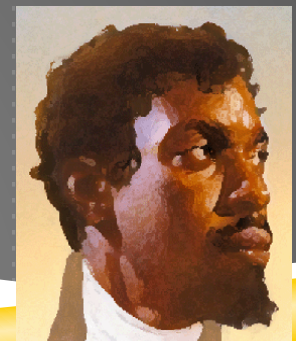
**Vicente Guerrero** (Spanish: [bi-sente ge-re-ro]; August 10, 1782 – February 14, 1831)

- ▶ He was one of the leading revolutionary generals of the Mexican War of Independence. He fought against Spain for independence in the early 19th century, and later served as President of Mexico.
- ▶ He was also the grandfather of the Mexican politician and intellectual Vicente Riva Palacio.
- ▶ He is known as the George Washington and the Abraham Lincoln of Mexico. Guerrero was a leading general in the Mexican War for Independence and abolished slavery in 1829, forty years before Lincoln would do the same.



# FATHER OF CHICAGO

- ▶ **Jean Baptiste Pointe Du Sable (1745-1818)** -- Born about 1745-50, St. Marc, Sainte-Domingue (now Haiti) Died Aug. 28, 1818, St. Charles, Mo.
- ▶ Du Sable was born on the Island of Haiti. His Father was a French Sea Captain and his mother an ex-slave. Du Sable was educated in France before settling in America with his Native American bride, Catherine. Du Sable went on to be a successful pioneer and entrepreneur establishing the first permanent trading post on the Chicago River in 1779. He was officially recognized in 1968 by the State of Illinois for having been the Founder of Chicago.



# FAMOUS BLACK SCIENTIST

- ▶ **Benjamin Banneker** (November 9, 1731 – October 9, 1806) was a free African American scientist, surveyor, almanac author and farmer.
- ▶ He is known for being part of a group led by Major Andrew Ellicott that surveyed the borders of the original District of Columbia, the federal capital district of the United States.
- ▶ Banneker's knowledge of astronomy helped him author a commercially successful series of almanacs.
- ▶ He corresponded with Thomas Jefferson, on the topics of slavery and racial equality. Abolitionists and advocates of racial equality promoted and praised his works. In the letter, Banneker accused Jefferson of criminally using fraud and violence to oppress his slaves by stating:
- ▶ ...Sir, how pitiable is it to reflect, that although you were so fully convinced of the benevolence of the Father of Mankind, and of his equal and impartial distribution of these rights and privileges, which he hath conferred upon them, that you should at the same time counteract his mercies, in detaining by fraud and violence so numerous a part of my brethren, under groaning captivity and cruel oppression, that you should at the same time be found guilty of that most criminal act, which you professedly detested in others, with respect to yourselves.

The letter ended: And now, Sir, I shall conclude, and subscribe myself, with the most profound respect,  
Your most obedient humble servant, BENJAMIN BANNEKER.





# SCIENTIST



NAME: Neil deGrasse Tyson

OCCUPATION: Scientist,  
Television Personality, Writer

BIRTH DATE: October 05, 1958  
(Age: 55)

EDUCATION: Bronx High School of  
Science, Harvard University,  
Columbia University

## **Best Known For:**

*NOVA ScienceNow* and appeared  
on such shows as *The Daily Show*  
and *Real Time with Bill Maher*



NAME: Mae C. Jemison

OCCUPATION: Astronaut, Doctor,  
Scientist

BIRTH DATE: October 17, 1956 (Age:  
57)

EDUCATION: Morgan Park High  
School, Stanford University, Cornell  
University

## **Best Known For:**

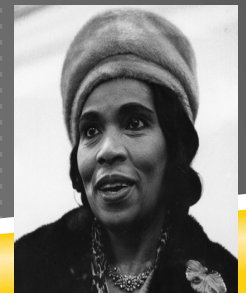
Doctor Mae C. Jemison is the first  
woman African-American ever to be  
a U.S. astronaut. In 1992, she flew  
into space aboard the Endeavour.

# MUSICAL MARIAN ANDERSON

Born in 1897 in Philadelphia, Pennsylvania, Marian Anderson exhibited impressive vocal talents as a child. While her family and teachers believed Anderson could become one of the most important singers of her era, she was prevented from attending the nation's best music and arts schools due to segregation and poverty.

Anderson continued to sing, honing her skills as a soprano and attending music school for a short period with the assistance of funds from fellow church members. After successful tours of colleges in the U.S. South, Anderson went on tour in Germany in the early 1930s, and was greeted with rave reviews and enthusiastic audiences.

Anderson was thrust into the national spotlight in the late 1930s when the Daughters of the American Revolution denied her a performance at Washington D.C.'s Constitution Hall. In response, a movement emerged for Anderson to perform an outdoor concert in front of the famed Lincoln Memorial. With the assistance of former First Lady Eleanor Roosevelt, Anderson performed at the Lincoln Memorial for an audience of 75,000 on Easter Sunday, 1939. The concert was a resounding success. Anderson was officially designated a delegate to the United Nations in 1958 and went on to receive a UN Peace Prize in 1972.



# JOSEPHINE BAKER



# ARTIST AND PERFORMER

- ▶ **Josephine Baker** (June 3, 1906 – April 12, 1975) was an American-born French dancer, singer, and actress who came to be known in various circles as the "Black Pearl," "Bronze Venus" and even the "Creole Goddess".
- ▶ Baker was the first African-American female to star in a major motion picture, Zouzou (1934), the first to integrate in an American concert hall, as well as to become a world-famous entertainer. Baker, who refused to perform for segregated audiences in America, is also noted for her contributions to the Civil Rights Movement.
- ▶ Baker, became a French citizen. She was also known for assisting the French Resistance during World War II and received the French military honor, the Croix de guerre.



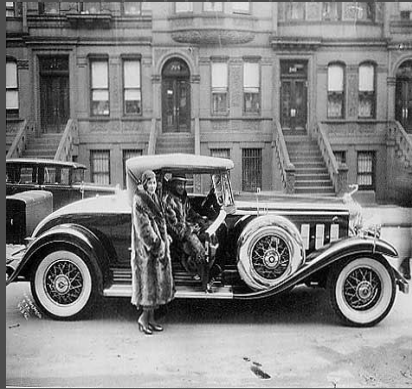
# JAMES VAN DER ZEE

**James Van Der Zee** (June 29, 1886 - May 15, 1983) was an African-American photographer best known for his portraits of black New Yorkers. He was a leading figure in the Harlem Renaissance.

Aside from the artistic merits of his work, Van Der Zee produced the most comprehensive documentation of the period. Among his most famous subjects during this time were Marcus Garvey, Bill "Bojangles" Robinson and Countee Cullen.



# JAMES VAN DER ZEE - PHOTOGRAPHS



# JAMES MERCER LANGSTON HUGHES

## LEADER OF HARLEM RENAISSANCE

- ▶ **James Mercer Langston Hughes** (February 1, 1902 – May 22, 1967) was an American poet, social activist, novelist, playwright, and columnist.
- ▶ He was one of the earliest innovators of the then-new literary art form called jazz poetry. Hughes is best known as a leader of the Harlem Renaissance.
- ▶ He famously wrote about the period that "the negro was in vogue" which was later paraphrased as "when Harlem was in vogue."





# WILLIAM EDWARD BURGHARDT LITERARY

- ▶ **William Edward Burghardt "W. E. B." Du Bois** (February 23, 1868 – August 27, 1963) was an American sociologist, historian, civil rights activist, Pan-Africanist.
- ▶ After graduating from Harvard, where he was the first African American to earn a doctorate, he became a professor of history, sociology and economics at Atlanta University.
- ▶ Du Bois was one of the co-founders of the National Association for the Advancement of Colored People (NAACP) in 1909.
- ▶ The leader of the Niagara Movement, a group of African-American activists who wanted equal rights for blacks. He opposed the Atlanta Compromise, an agreement crafted by Booker T. Washington which provided that Southern blacks would work and submit to white political rule. Du Bois insisted on full civil rights and increased political representation, which he believed would be brought about by the African-American intellectual elite. He referred to this group as the talented tenth and believed that African Americans needed the chances for advanced education to develop its leadership.



- ▶ **Paul Robeson (1898-1976)** All-American athlete, scholar, renowned baritone, stage actor, and social activist.
- ▶ He was perhaps most groundbreaking, however, in the medium of film. The son of an escaped slave, Robeson managed to become a top-billed movie star during the time of Jim Crow America, headlining everything from fellow pioneer Oscar Micheaux's silent drama *Body and Soul* to British studio showcases to socially engaged documentaries.

# Lorraine Vivian Hansberry

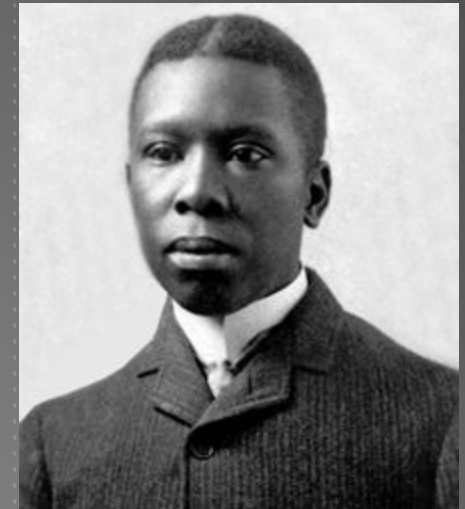
- **Lorraine Vivian Hansberry** (May 19, 1930) Playwright, author, activist. Hansberry's father was a successful real estate broker, and her mother was a schoolteacher. Her parents contributed large sums of money to the NAACP and the Urban League.
- In 1938, Hansberry's family moved to a white neighborhood and was violently attacked by neighbors. They refused to move until a court ordered them to do so, and the case made it to the Supreme Court as *Hansberry v. Lee*, ruling restrictive covenants illegal.
- Hansberry broke her family's tradition of enrolling in Southern black colleges and, instead, attended the University of Wisconsin in Madison. While at school, she changed her major from painting to writing, and, after two years, decided to drop out and move to New York City.
- In New York, Hansberry attended the New School for Social Research and then worked for Paul Robeson's progressive black newspaper, *Freedom*, as a writer and associate editor from 1950 to 1953.
- In 1957, she joined the Daughters of Bilitis and contributed letters to their magazine, *The Ladder*, about feminism and homophobia. Her lesbian identity was exposed in the articles, but she wrote under her initials, L.H., for fear of discrimination. During this time, Hansberry wrote *The Crystal Stair*, a play about a struggling black family in Chicago, which was later renamed *A Raisin in the Sun*, a line from a Langston Hughes poem.



# Paul Laurence Dunbar

June 27, 1872 – February 9, 1906

- ▶ An African-American poet, novelist, and playwright of the late 19th and early 20th centuries. Much of his popular work in his lifetime used a Negro dialect, which helped him become one of the first nationally-accepted African-American writers. Much of his writing, however, does not use dialect; these more traditional poems have become of greater interest to scholars



# PICK UP THE TORCH AND LIGHT THE PATH THAT WAS ILLUMINATED SO LONG AGO WITH THE BLOOD, SWEAT AND TEARS OF YOUR ANCESTORS AND MINE

- Just as white history is fundamental to American history, Black history, as well Hispanic history and others, need to be integrated into our educational system and curricula, taught at all levels, not just during one month of the year., and not just as a sidebar feature in a textbook.
- When the contributions of people of African descent are acknowledged, when the achievements of Black people are known, when Black people are routinely included or affirmed through our curriculum, our books and the media, and treated with equality, then there will no longer be a need for Black History Month.



# MATHEMATICIANS

- Benjamin Banneker
- Sister Mary S. Deconge
- Annie Easley
- Evelyn Boyd Granville
- Katherine G. Johnson
- Percy A. Pierre

- Louis W. Roberts
- J. Ernest Wilkins
- Scott Williams

## Other Mathematicians

- Mathematicians of the African Diaspora

Developed by Dr. Scott Williams,  
Professor of Mathematics,  
SUNY-Buffalo

# COMPUTER SCIENTISTS

- Clarence A. "Skip" Ellis
- Annie Easley
- Philip Emeagwali
- Roscoe C. Giles
- Bryant W. York

Other Computer Scientists

Computer Scientists of the African Diaspora

Developed by Dr. Scott Williams, Professor of Mathematics,  
SUNY-Buffalo

# METEOROLOGISTS

- Charles E. Anderson
- June Bacon - Bercey
- Bryan Busby
- E. Don Sarreals
- James Tilmon
- Warren Washington

# MEDICAL

Benjamin S. Carson

Source:

Academy of Achievement

- Rebecca J. Cole
- Albert G. Crenshaw
- Charles R. Drew
- Mae C. Jemison Roscoe
- L. Koontz

- Samuel L. Kountz
- William A. Hinton
- Lovell A. Jones
- Maurice Rabb
- Vivien T. Thomas
- Daniel Hale Williams

# ENGINEERS

- Archibald Alexander
- Albert C. Antoine
- David Crosthwait
- Clarence Elder
- Roscoe C. Giles
- Meredith C. Gourdine
- Campbell Johnson
- Lewis Howard Latimer
- Frederick McD. Massiah
- Caldwell McCoy
- Elijah McCoy
- Garrett A. Morgan
- Percy A. Pierre
- John B. Slaughter
- Virgil Trice
- O.S. (Ozzie) Williams

# GENETICISTS

- James E. Bowman, Jr.
- Thomas Price Dooley
  - Mary Styles Harris
- Reuban A. Munday
  - Robert F. Murray

# BIOCHEMISTS

- Herman Branson
- George Washington Carver
- Emmett W. Chappelle
- Marie M. Daly
- Lloyd Hall
- Ernest E. Just
- Samuel Lee Kountz, Jr.
- James Sumner Lee
- Dorothy McClendon
- Ruth Ella Moore
- Kenneth Olden
- Ida Owens
- Maurice Rabb

# BIOLOGISTS

- William Michael Bright
- Hyman Yates Chase
- Jewel Plummer Cobb
- Alfred O. Coffin
- Dale Emeagwali
- Mary Styles Harris
- Jehu Callis Hunter
- Ernest Everett Just
- James Sumner Lee
- Roger Arliner Young
- Kenneth Olden



# PHYSICISTS

- George E. Alcorn
- Edward Bouchet
- Robert Henry Bragg
- Herman R. Branson
- George R. Carruthers
  - Ernest Coleman
- John William Coleman
  - Stanley Peter Davis
- Meredith C. Gourdine
- John McNeile Hunter
  - Elmer Samuel Imes

# PHYSICISTS

- Shirley Ann Jackson
- Katherine G. Johnson
- Roscoe L. Koontz
- Walter Eugene Massey
- Louis W. Roberts
- Lynn Ernest Roberts
- Earl Shaw
- John B. Slaughter
- Lawnie Taylor
- Herman Thomas
- J. Ernest Wilkins

# INVENTORS

- George E. Alcorn
- Sharon J. Barnes
- Benjamin Bradley
- Otis Boykin
- George Washington Carver
- Clarence Elder

- Frederick M. Jones
- Lewis Howard Latimer
- Elijah McCoy
- Garrett A. Morgan
- John P. Parker
- Norbert Rillieux
- Rufus Stokes

# INVENTORS

- Madame C.J. Walker
- Granville T. Woods
- Inventors Bibliography
- **Historical Inventors**

Women Inventors (1885-1975)

Selected Inventors/Patents

Index of African American Inventors: Historical

- First Patents to African-Americans

## **First Man**

Thomas L. Jennings (1821)

## **First Woman**

Sarah E. Goode (1885)

# ENTOMOLOGISTS

- Madison Spencer Briscoe
- Vivian Murray Chambers
  - Herman Glen Cooke
    - Leon Roddy
    - Charles Turner

# VETERINARIANS

- Raleigh H. Allen
- Wendell O. Belfield
  - Roger D. Estep
- Augustus N. Lushington
- Frederick D. Patterson
- Theodore S. Williams
- Thomas G. Perry

# GEOLOGISTS OCEANOGRAPHER

- Marguerite T. Williams
  - Evan B. Forde

# PROTOZOOLOGISTS

- Harold Eugene Finley
- Norvell Witherspoon Hunter
  - James Warren Lee
- William Henry McArthur



# ZOOLOGISTS

- William Michael Bright
  - Hyman Yates Chase
    - Alfred O. Coffin
- Herman Glen Cooke
  - Jehu Callis Hunter
- Norvell Witherspoon Hunter
  - Ernest Everett Just
  - James Warren Lee
- Charles Henry Turner
  - Roger Arliner Young

# RESOURCES

- **Science Reference Section  
Science, Technology, and Business Division  
Library of Congress**
- Black History Inventors - Black History Month  
[http://inventors.about.com/od/blackinventors/a/Black\\_History.htm](http://inventors.about.com/od/blackinventors/a/Black_History.htm)
- The Black Inventor Online Museum  
<http://www.blackinventor.com/>
- Black Nurses in History - UMDNJ Camden Campus Library  
<http://www4.umdnj.edu/camlbweb/blacknurses.html>
- Computer Scientists of the African Diaspora  
<http://www.math.buffalo.edu/mad/computer-science/index.html>
- Directory of Black Entomologists in North America  
<http://www.life.umd.edu/entm/black.htm>
- Early African Americans in Otolaryngology  
[http://www.entnet.org/museum/exhibits/africanamerican\\_page1.cfm](http://www.entnet.org/museum/exhibits/africanamerican_page1.cfm)

# RESOURCES

- The Faces of Science: African Americans in the Sciences  
<https://webfiles.uci.edu/mcbrown/display/faces.html>
- The History Makers.com - African American History Archive  
<http://www.thehistorymakers.com/>
- Just Garcia Hill Biography Project  
<http://justgarciahill.org/jghdocs/webbiography.asp>
- Kellogg African American Health Care Project: The Oral Histories  
<http://www.med.umich.edu/haahc/theoral.htm>
- The Mathematical Association of America: Index of Biographies  
[http://www.maa.org/summa/archive/ar\\_index.htm](http://www.maa.org/summa/archive/ar_index.htm)
- Mathematicians of the African Diaspora  
<http://www.math.buffalo.edu/mad/>
- NASA Quest: African American Astronauts  
[http://quest.nasa.gov/qchats/special/mlk00/afam\\_astronauts.html](http://quest.nasa.gov/qchats/special/mlk00/afam_astronauts.html)

# RESOURCES

- The National Academies African-American History Program  
[http://nas.nasonline.org/site/PageNavigator/AAHP\\_home](http://nas.nasonline.org/site/PageNavigator/AAHP_home)
- The National Black Nurses Association  
<http://www.nbna.org>
- National Dental Association  
<http://www.ndaonline.org>
- National Medical Association  
<http://www.nmanet.org>
- National Organization for the Professional Advancement of Black Chemists and Chemical Engineers  
<http://www.nobcche.org>
- The National Society of Black Engineers  
<http://www.nsbe.org>

# RESOURCES

- National Society of Black Physicists  
<http://nsbp.org/cgi-bin/nsbp.cgi?page=home>
- National Technical Association  
<http://www.ntaonline.org>
- Physicists of the African Diaspora  
<http://www.math.buffalo.edu/mad/physics/index.html>
- US Black Engineer Magazine  
<http://www.blackengineer.com/artman/publish/index.shtml>
- Compiled by Denise P. Dempsey, January 2005

# CHEMISTS

- Albert C. Antoine
- Thomas Nelson Baker, Jr.
- St. Elmo Brady
- E. Luther Brookes
- Edward M.A. Chandler
- George Washington Carver
- John R. Cooper
- Lloyd Hall
- James Harris
- Henry Aaron Hill
- John Edward Hodge
- John McNeile Hunter
- Elmer Samuel Imes
- Lovell A. Jones
- Percy Lavon Julian
- Ernest Just
- James Lu Valle
- Samuel Proctor Massie, Jr.
- Henry Cecil Ransom McBay
- Norbert Rillieux
- Edwin R. Russell
- Moddie Daniel Taylor
- Charles Turner
- Isaiah M. Warner
- E. Oscar Woolfolk