
Sample Lesson 8: An Introduction to African American Innovators

Theme: Identity

Disciplinary Area: African American Studies

Ethnic Studies Values and Principles Alignment: 1, 2, 3, 4

Standards Alignment:

HSS Content Standards: 10.3, 11.5, 11.10, 12.4

CA HSS Analysis Skills (9–12): Chronological and Spatial Thinking: 2; Historical Research, Evidence, and Point of View: 4; Historical Interpretation: 4

CA CCSS for ELA/Literacy: SL.9–10.5, SL.11–12.5

CA ELD Standards: 1.1, 1.2, 1.5, 1.10

LESSON PURPOSE AND OVERVIEW:

This lesson guides students to explore some of the African American contributions to the United States. Students will be introduced to and explore the contributions of African Americans in science, technology, engineering, and mathematics (STEM); literature and journalism; education; government; and business and entrepreneurship.

Key Terms and Concepts: technology, science, innovation, space, journalism, literature and literary genres, armed forces, government, business, entrepreneurship, ingenuity, segregation, economic advancement, Harlem Renaissance, Jim Crow

Lesson Objectives (Students will be able to ...):

- Develop research questions in order to conduct exploratory research into historical events and figures
- Interpret historical narratives in order to develop a more robust understanding of historical events and figures
- Learn from each other by presenting the histories and contributions of African Americans that are often unknown or untold; explain the role African Americans have played in the advancement of science, technology, and other areas in American society
- Strengthen public speaking skills through presenting their research findings
- Build upon interpersonal communication skills in order to adequately receive and convey information

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- Compile research and information in order to create a visual presentation or display of a historical event or figure

Essential Questions:

1. What contributions have African Americans made to the United States, and how has society benefited from them?
2. Why are some of these contributions not widely known?
3. How can these contributions be given greater recognition in society today?

Lesson Steps/Activities:

Part 1: Research Presentation

1. Develop an electronic visual presentation for the lesson opening that shows images of various contributions in the five areas of science and mathematics, literature and journalism, education, government, and business and entrepreneurship. The presentation ends with the quote: “There is nothing new in the world except the history you do not know,” by Harry S. Truman, 33rd President of the United States. As students view the presentation, invite them to write down what they know and what they want to know about the images.
2. Introduce the lesson by asking students what they believe all of these things have in common. This should be a class conversation.
3. Present the five stations of African American contributions, being sure to connect them with the images and discussions from steps 1 and 2.
4. Invite students to explore the five stations in the in-person or virtual classroom and view the introductory resources on each topic. As students view the introductory resources, they write down their learnings, as well as their wonderings, and identify one station for further research.
5. Students should find additional sources of information on their topic of choice to conduct further research.
6. After students have completed their exploration of the different stations, they should compose a written response to the three essential questions that includes information they have learned from the lesson. Students should be encouraged to identify possible topics or areas of focus for further research in their responses. Time permitting, students can share these responses in small groups or with a partner.

Part 2: Museum Curation

1. Review the five stations that were discussed in Part 1. Then ask students to briefly discuss Essential Questions 1–3.
2. After the discussion, transition to discussing the value of museums as a way to bring the contributions of African Americans to the broader society. Provide examples of the African American Museum in Washington, DC and other museums or public displays in the local or surrounding areas. Also provide examples of digital museum exhibits for local and national collections.
3. Introduce the project: museum curation. Each student will be creating a museum exhibit based on one historical figure or contribution from the stations that they explored previously. Instruct students to look for primary and secondary sources that can teach them more about their subject. These sources could be texts or oral histories found in the available databases. Students can also interview experts to gather more information. Interviews can be conducted in person or remotely.
4. After introducing the project and providing examples of museum exhibits, provide an overview of the expectations for the research and presentations. Discuss the types of equipment and materials students will need. Help students understand the difference between secondary and primary sources.
5. Allow the use of the next few class periods for students to conduct further research. Assist students with narrowing or broadening their research topic based on the amount of information available on their topic of choice.
 - a. Students may use relevant resources that they discovered during the first part of this lesson.
 - b. For more rigor, students can be required to have a specific number of primary sources and secondary sources.
6. Once students have completed their research, ask them to create their own museum exhibit complete with pictures and artifacts related to their topic. The resources that they collected should be used as source materials for their exhibit.
 - a. The exhibit should have at least one picture of the subject and a written description of the exhibit.
7. Students will develop a presentation to describe their learnings from their station and their historical event or figure. Each presentation should be no more than two minutes in length.
 - a. Students will be the curators of their own classroom museum. The classroom should be arranged in stations where corresponding exhibits will be displayed.

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- b. Alternate display for distance learning: Students will create a one-slide PowerPoint display, which will be displayed via the share screen option of the distance learning platform.
 8. After presentations are completed, the teacher facilitates the discussion of the essential questions.

Assessment, Application, Action, and Reflection:

Assessment:

- Peer assessments of preliminary research can be used to help students refine or focus their research for the museum curation project.
- The teacher should evaluate students' research based on grade-level expectations in the history–social science content standards. Students can be assessed on their ability to pose relevant research questions, compare documentary sources, differentiate between primary and secondary sources, and vet potential resources for credibility, validity, and bias.
- The teacher can use students' museum exhibits to assess how well they synthesized their research and applied it to their displays and presentations.
- The teacher should evaluate students' presentation skills based on grade-level expectations in the CA CCSS for ELA/Literacy standards.

Application, Action, and Reflection:

- Students will conduct research on the station of their choosing using appropriate grade-level skills as outlined in the history–social science content standards and recommended by the *History–Social Science Framework*.
- Students will create and present museum exhibits to demonstrate their abilities to conduct a grade-level appropriate synthesis of research and orally convey information learned.
- The teacher should provide an opportunity for students to reflect on the essential questions, either as a whole group or in small groups or breakout sessions. The teacher may choose to guide students through the reflection process prior to letting them engage in the reflection of the essential questions.

Materials and Resources:

Note: The lists contained in these resources are in no way exhaustive. They should be used as an initial suggestion of possible events or historical figures that can be expanded and modified to meet the needs of individual classrooms. Students are encouraged to find other events and historical figures not on these lists.

Station 1: Science, Technology, and Mathematics

Station Purpose and Overview:

Students will discover the amazing history of African American inventors, designers, and scientists who have contributed to the making of the contemporary American society. Students will learn about the use of African creative strategies during the period of enslavement and the burst of inventions that occurred at the end of the nineteenth and early twentieth centuries. Numerous inventors who had not been recognized during the enslavement for their innovations became known as designers and creators of useful objects and processes for a modern society. It is not striking that a people who had been responsible for so much of the daily operations of farms, plantation houses, mechanical systems, and construction would now emerge from the shadows as some of the creators of the most common elements used in work. Students will be able to understand how and why the agricultural worker or the mechanic would be inclined to innovate. Consequently, this lesson will pave the way for the student to see how integral the inventions, innovations, and scientific work of African Americans are to everyday life.

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any innovator of their choice, including those not listed here.

Invite students to watch one or more of these introductory videos:

Five African American Inventors Who Improved the World:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link43>

19th Century Black Discoveries: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link44>

Awesome Inventions by African Americans:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link45>

Students then explore African American innovators such as the following:

Scientists and Inventors

The A–Z List of Black Inventors: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link46>

Famous African American Women in STEM:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link47>

16 Black STEM Innovators Who Have Defined Our Modern World:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link48>

Black Explorers: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link49>

African Americans at NASA

NASA's African American Astronauts: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link50>

NASA Figures: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link51>

"Black In Space" Explores NASA's Small Steps and Giant Leaps Toward Equality:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link52>

African American Doctors

California Academy of Sciences Library: African American Scientists Bibliography:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link53>

Black Scientists Timeline: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link54>

Other African American Scientific Contributions

The Disturbing History of African Americans and Medical Research Goes Beyond

Henrietta Lacks: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link55>

Resources:

Otha Richard Sullivan. 2002. *Black Stars: African American Women Scientists and Inventors*. San Francisco, CA: Jossey-Bass.

Keith C. Holmes. 2008. *Black Inventors: Crafting Over 200 Years of Success*. Brooklyn, NY: Global Black Inventor Research Projects, Inc.

Black Scientists and Inventors: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link56>

Station 2: Literature, Journalism, and the Arts

Station Purpose and Overview:

Students will explore the intellectual, journalistic, and artistic achievements of African Americans throughout history. Students will engage in the works of icons of the Harlem Renaissance, as well as those who came before, and more contemporary innovators.

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any innovator of their choice, including those not listed here.

Invite students to watch the introductory video on the Harlem Renaissance:

History Brief: The Harlem Renaissance: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link57>

Introduction to the Harlem Renaissance: Students will explore the vibrant artistic and intellectual life brought to New York and other Northeastern American cities by African Americans fleeing the South in a large and massive migration to the North and away from the brutality of the post-Reconstruction era. At the same time, Africans from the African continent, South America, and every Caribbean island entered the northern section of New York's Manhattan Island, and this area, Harlem, became the liveliest gathering place of African ideas on the earth. Politicians, novelists, musicians, artists, newspaper publishers, business people, dancers, choreographers, lawyers, playwrights, and poets assembled in the parlors, salons, and stately houses in uptown New York to revive and remake the Black tradition. Students will learn how the Great Migration changed the way African Americans saw themselves and the way others saw them. The book *The New Negro* by Philadelphian Alain Locke is often called the work that began the Harlem Renaissance. The literary aspect of the Harlem Renaissance is the most noted and known by virtue of the writers who articulated the ideas of African Americans who resisted segregation, discrimination, and second-class citizenship.

Students explore African American writers, journalists, and artists.

Journalists

Black Press Comprehensive Timeline: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link58>

The Black Press: Past and Present: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link59>

The Black Press: From Freedom's Journal to The Crisis, Ebony & Jet (video):
<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link60>

Authors

African American Literature: A Timeline: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link61>

Musicians

The Birth of Jazz: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link62>

African American Music History Timeline: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link63>

Notable African American Musicians: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link64>

Additional Resources:

Henry Louis Gates, Jr., and Evelyn Brooks Higginbotham, eds., *Harlem Renaissance Lives*

Nathan Irvin Huggins, *Harlem Renaissance*

James Weldon Johnson, *Black Manhattan*

Alain Locke, *The New Negro*

Steven Watson, *The Harlem Renaissance: Hub of African-American Culture, 1920–1930*

Station 3: Education

Station Purpose and Overview:

Students will explore the history-making individuals and institutions that shaped education for African American students and beyond. Historical Black colleges and universities highlight the tremendous gains made by African Americans whose access to education was severely restricted and even forbidden for centuries. Students will learn the history and the evolution of the US educational system, including precedent-setting legislation as it pertains to equal access, and will learn about the struggles of African American students who fought for their right to education.

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any innovator of their choice, including those not listed here.

Invite students to listen to the following podcast and watch the introductory video:

Brown v. Board of Education Podcast: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link65>

African American Higher Education: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link66>

Students explore the history and contributions of African Americans to education.

Have students research and identify outstanding African educators such as Booker T. Washington, Mary McLeod Bethune, and Octavius Catto. What historically Black colleges are they associated with?

Historically Black Colleges and Universities

Timeline of Historically Black Colleges and Universities:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link67>

Tell Them We Are Rising: The Story of Historically Black Colleges and Universities:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link68>

African American Higher Education: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link69>

Pioneers in African American Education

Important Milestones in African American Education:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link70>

Key Events in Black Higher Education: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link71>

Booker T. Washington – Mini Biography: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link72>

Station 4: Government, Military, and Civics

Station Purpose and Overview:

Students will explore the contributions that African Americans have made to US legislation, governmental institutions, and armed forces from the early days of the republic to the present day.

Movements like the Civil Rights Movement are responsible for the passage of major legislation such as the Voting Rights Act and the Civil Rights Act. Additionally, scholars have identified more than 1,500 African American office holders during the Reconstruction Era (1863–1877) who helped to shape government and provide representation for African Americans. By the year 2020, there had been 162 African Americans who served in Congress or as delegates from US territories and the District of Columbia.

This station will also highlight the various accomplishments of African American military leaders and units such as the Harlem Hellfighters and African American office holders.

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any innovator of their choice, including those not listed here.

Invite students to watch this introductory video:

African Americans in Congress in the 19th Century:
<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link73>

It may be helpful to frame the discussion around this topic. *Facing History and Ourselves* provides sample lessons and resources that may help with this: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link74>

Students explore African Americans in US Government, such as the following examples:

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any government official of their choice, including those not listed here.

African Americans in Office

Major African American Office Holders Since 1641:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link75>

Black Legislators: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link76>

The Black Congressmen of Reconstruction: Death of Representation:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link77>

African Americans in the White House Timeline:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link78>

Black Americans in Congress: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link79>

Moments in History: Remembering Thurgood Marshall:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link80>

African Americans in the Armed Forces

Tuskegee Airmen:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link81>

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link82>

African Americans in the US Army: <https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link83>

African Americans in the US Armed Forces:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link84>

African Americans in the US Army: Profiles of Bravery:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link85>

The History of Allensworth, California (1908–):

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link86>

African American Social Movements and Civic Engagement

“Eyes on the Prize: America’s Civil Rights Movement” PBS series:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link87>

“Eyes on the Prize: America’s Civil Rights Movement” accompanying lessons:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link88>

The Reconstruction Era and the Fragility of Democracy, Section 4:

<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link89>

Station 5: Business and Entrepreneurship

Station Purpose and Overview:

Students will explore African American business innovators and entrepreneurs, as well as successful African American business ventures such as those found in Tulsa, Oklahoma's Black Wall Street. Students will be introduced to well-known figures such as Oprah Winfrey and lesser-known figures such as Annie Malone.

Note: This is in no way an exhaustive list. Teachers are encouraged to add to this list, and students are encouraged to research any innovator of their choice, including those not listed here.

Invite students to view the introductory video:

The Rise of African American Entrepreneurs in America
(<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link90>)

Students explore and research African American businesspersons, entrepreneurs, and related historical events such as those found in the following links:

Black in Business: Celebrating the Legacy of Black Entrepreneurship:
<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link91>

Black Wall Street and Its Legacy in America:
<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link92>

Black Excellist: Most Powerful Black CEOs in Corporate America:
<https://www.cde.ca.gov/ci/cr/cf/ch4.asp#link93>