Lesson Plan


Edward Alexander Bouchet, ca. 1874
Image Courtesy Wikimedia Commons

W.E.B. Du Bois
Image courtesy of the Library of Congress
American Memory Project

Booker T. Washington
Image courtesy of the Library of Congress
American Memory Project
In this two-part lesson plan, students will learn about the debate between Booker T. Washington and W.E.B. Du Bois over African-American education in the late nineteenth and early twentieth century and about the life of Edward Bouchet, the first African-American to receive a Ph.D. in Physics in 1876.

Following the Civil War, which ended in 1865, millions of African Americans were freed from slavery. Throughout the late nineteenth century and early twentieth century, African-American leaders debated the best way to “uplift the race” through education. Two of the most prominent of these figures were Booker Taliaferro Washington and William Edward Burghardt or W.E.B. Du Bois. Though they both strove to advance the African-American struggle for social, political, and economic equality, they espoused two different ideologies when it came to the education of African Americans. Washington promoted an industrial model of education similar to that which he had received at Hampton Normal and Agricultural Institute. Industrial education trained African Americans (and other people of color such as Native Americans) for jobs in various industries, focusing on practical skills that could result in employment. Instead, Du Bois supported a classical education, which prepared students for college and taught them subjects such as Philosophy, Latin, and Physics. Their educational ideologies also reflected two different views on how to achieve equality. While Washington argued that African Americans should accommodate segregation and inequality as they learned to become better citizens, Du Bois argued that African Americans needed to demand civil rights immediately. Washington’s and Du Bois’ ideas were well-publicized and debated by educators and advocates for the rights of African Americans around the country. The conflict between Washington and Du Bois remains salient today and provides an entry point for students to think about education during the period of Reconstruction.

Edward Alexander Bouchet was the first African American to receive a Ph.D. and one of the first six Americans of any race to receive a Ph.D. in Physics. His life offers a way to understand this period through the experience of a physicist. He received his doctorate from Yale University in 1876. After graduating, Bouchet spent 26 years teaching science at the Institute for Colored Youth (ICY), now called Cheyney University, the oldest African-American school for higher education in the United States. In 1902, Bouchet left the school amidst a number of shifts at ICY toward industrial education which resulted in the ending of the college preparatory program and the firing or resignation of many teachers from the school. ICY then moved to Cheyney, Pennsylvania and changed its name to Cheyney State College. Though Bouchet’s writings seem to be lost to history, his educational background and position
as a science teacher may shed light on where he might have stood in the debate over African-American education. His background was similar to that of W.E.B. Du Bois. He was from the Northeast, he received a classical education, and he studied physics. Based on these facts, one could argue that he may have been more in line with Du Bois’ philosophy. In addition, Bouchet resigned from the Institute of Colored Youth in 1902, the same year the managers made changes moving the school more toward Washington’s industrial education. Some sources say that Bouchet was fired without compensation and left the ICY with bitter feelings. His life’s work from that point forward was in public education at many industrial schools for African Americans throughout the country. Therefore, one could also argue that he might have been more in line with Washington’s approach. While it seems from his background that he would have been more in line with Du Bois’ philosophies, without his writings, we can only make educated guesses based on the evidence we have. Learning to make arguments based on historical evidence is a central part of being a historian, even when there isn’t a decisive answer. This “detective work” exposes students to the process that historians go through as they attempt to discover the perspectives and experiences of those in the past.

**Instructions/Activities**

**Engage: 15 minutes**

Begin by reviewing the period of Reconstruction with the class to provide historical context. For more resources on Reconstruction, see the Required/Recommended Reading and Resources section below. Students should understand that following the end of Reconstruction in 1876, African Americans faced increasingly violent and repressive conditions, especially in the South. They should also understand the spread of Jim Crow segregation, epitomized by the 1896 *Plessy v. Ferguson* decision. And they should be introduced to the establishment of colleges and universities (now called Historically Black Colleges and Universities) throughout the nineteenth century, but especially after the Civil War, dedicated to the education of African Americans. Students should also be familiar with the difference between primary and secondary sources.

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<tr>
<td>Provide a quick review of the Reconstruction period, and introduce the establishments of colleges and universities dedicated to the education of African Americans after the Civil War. This can be done by giving a short lecture and giving the students time to ask questions and have them provide examples of Historically Black Colleges and Universities. If they can’t, the teacher should provide a few examples for them. Also make sure to mention who Edward Bouchet is and explain his accomplishments.</td>
<td>Listening to the short lecture, asking any questions they have and listing any Historically Black Colleges and Universities that they know of.</td>
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After the brief introduction, the class should watch the mini-biography of [Booker T. Washington](3:30) and [W.E.B. Du Bois](3:46). Then, show the clip on the rivalry between Du Bois and Washington (2:15). Ask students to take notes while watching. (See Required/Recommended Reading and Resources for the URL of these videos, also hyperlinked in this paragraph.)

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<td>The teacher should play the short videos and have the students take notes while they watch.</td>
<td>Watching the videos and taking notes on what they see.</td>
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</table>
**Explore: 20 minutes**

Divide the class into multiple groups of 4 or 5 students. Each group should read the Booker T. Washington and W.E.B. Du Bois primary source excerpts. For both excerpts, the groups should write down a) the major argument and b) reasoning and evidence the author uses for his argument. Make sure each group circles any words that they do not know the meaning of so they can look them up in the dictionary or online. Before moving on, the class can have a short discussion making sure that they understand Washington’s and Du Bois’ arguments.

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<td>Divide the class into groups of 4-5 students. Have each group read the primary source excerpts and work together to write down the major argument of each text and the reasoning and evidence the author uses for his argument. When this is done, bring the students together to have a short discussion. Make sure all students understand the arguments of both men. Have them make a list of the main arguments and evidence given by each group.</td>
<td>The students should be reading the excerpts in their groups, then working together to write down the major argument of each text and the reasoning and evidence the author uses for his argument. When the class comes together, they will take part in a short discussion to ensure understanding, either providing their own arguments and reason.</td>
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**Explain: 20 minutes**

Students should read the James Sellers primary source, and the secondary source excerpt on the Institute for Colored Youth. Highlight or underline important information in the sources. Discuss in small groups whether Bouchet would have agreed more with Washington or Du Bois. Each group must list its reasons in writing and cite specific quotes from the sources to defend its arguments.

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<td>Have the students divide back up into groups to continue reading through primary and secondary sources, this time concerning Edward Bouchet.</td>
<td>The students should be reading through the sources, underlining or highlighting any important information that they think might help shed some light on which side of the argument Bouchet was on.</td>
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**Elaborate: 15 – 20 minutes**

Each group should present its decision to the class and defend its argument using quotes and historical evidence from the primary and secondary resources. To start, each group can just say which one they think Bouchet would have agreed with and give one reason. If there is dissent, then students can debate which perspective they find more compelling. However, if most everyone is in agreement, then the students can be assigned one of the two viewpoints regardless of personal opinion, and debate between Washington’s and DuBois’ arguments.

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<td>Have each group present its findings, defending any arguments they make with quotes and historical evidence from the sources they were working with.</td>
<td>Presenting their findings as a group, giving their arguments and the evidence for them from the sources they worked with.</td>
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<tr>
<td>Once all presentations have been given, if there is dissent, then the students should debate as a whole which argument they thought the most compelling. If not, then the groups should be assigned to argue</td>
<td>Students should partake in a class-wide discussion and debate over which arguments they found the most compelling. If they all agree, then they will be assigned a side</td>
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</table>
the side of either DuBois or Washington in a debate. (Washington or DuBois) to argue for in a debate.

**Evaluate:**
The teacher can use the group writings and presentations as a means of evaluation, as well as participation in the discussion and debates.

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## Required/Recommended Reading and Resources

### Video Clips:


### Primary Source Excerpts (See Supplemental Materials):


### Secondary Source Excerpts (See Supplemental Materials):


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## Discussion Questions

Discussion Questions can be found as a Handout with a corresponding Answer Key in the Supplemental Materials to this lesson plan.

1. How do you think the personal lives of Washington and Du Bois influenced their position on the debate over African-American education?
2. What was Du Bois’ critique of Washington’s theory of education
3. What were race relations like in the United States and particularly in the South during the time of this debate (late nineteenth and early twentieth century)? How do you think race relations influenced the debate?
4. Based on Edward Bouchet’s life history, what do you think his position would have been on this debate? Why?
5. What is an “industrial education”? What is a “classical education”? How would a physics class be different in an industrial vs. a classical curriculum? Do you recognize elements of either style in your own education?

Further Reading and Additional Resources


Extensions
The Institute for Colored Youth/Cheyney University:
For a more in-depth look at the educational reform of African-American schools in the late nineteenth and early twentieth century, students can also learn about the history of the Institute for Colored Youth. Students can browse the annual report of the Cheyney Training School for Teachers (previously the Institute for Colored Youth) from 1914-1915 and see what an industrial education looked like in practice. Students can then compare the course curriculum to their own.

Reflection and Refraction:
This lesson plan can be linked with a lesson on reflection and refraction which was the focus of Bouchet’s dissertation titled “Measuring Refractive Indices.” Here are a few sample lesson plans on the subject:
- Refracted Light Lesson Plan from Scholastic: http://teacher.scholastic.com/lessonrepro/reproducibles/refracted.htm
- Refraction Teacher Resources from Lesson Planet: http://www.lessonplanet.com/lesson-plans/refraction

Related AIP Teacher’s Guides on Women and Minorities in the Physical Sciences:
- Physical Sciences at Historically Black Colleges and Universities
A supplemental activity examines historical photographs of science education at HBCUs from the late nineteenth century.

- Imes and Spectrometers

**Common Core Standards**


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<thead>
<tr>
<th>Reading: Informational Text</th>
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<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.1</td>
<td>Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.2</td>
<td>Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.3</td>
<td>Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.4</td>
<td>Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.6</td>
<td>Determine an author’s point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.7</td>
<td>Analyze various accounts of a subject told in different mediums (e.g., a person’s life story in both print and multimedia), determining which details are emphasized in each account.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.8</td>
<td>Delineate and evaluate the argument and specific claims in a text, assessing whether the reasoning is valid and the evidence is relevant and sufficient; identify false statements and fallacious reasoning.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.9-10.9</td>
<td>Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's &quot;Letter from Birmingham Jail&quot;), including how they address related themes and concepts.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.1</td>
<td>Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.2</td>
<td>Determine two or more central ideas of a text and analyze their development over the course of the text, including how they interact and build on one another to provide a complex analysis;</td>
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<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.3</td>
<td>Analyze a complex set of ideas or sequence of events and explain how specific individuals, ideas, or events interact and develop over the course of the text.</td>
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<td>CCSS.ELA-LITERACY.RI.11-12.4</td>
<td>Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.6</td>
<td>Determine an author’s point of view or purpose in a text in which the rhetoric is particularly effective, analyzing how style and content contribute to the power, persuasiveness or beauty of the text.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.7</td>
<td>Integrate and evaluate multiple sources of information presented in different media or formats (e.g., visually, quantitatively) as well as in words in order to address a question or solve a problem.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.8</td>
<td>Delineate and evaluate the reasoning in seminal U.S. texts, including the application of constitutional principles and use of legal reasoning (e.g., in U.S. Supreme Court majority opinions and dissents) and the premises, purposes, and arguments in works of public advocacy (e.g., The Federalist, presidential addresses).</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.RI.11-12.9</td>
<td>Analyze seventeenth-, eighteenth-, and nineteenth-century foundational U.S. documents of historical and literary significance (including The Declaration of Independence, the Preamble to the Constitution, the Bill of Rights, and Lincoln’s Second Inaugural Address) for their themes, purposes, and rhetorical features.</td>
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**Speaking & Listening**

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<tr>
<th>CCSS.ELA-LITERACY.SL.9-10.1</th>
<th>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.</th>
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<tbody>
<tr>
<td>CCSS.ELA-LITERACY.SL.9-10.2</td>
<td>Integrate multiple sources of information presented in diverse media or formats (e.g., visually, quantitatively, orally) evaluating the credibility and accuracy of each source.</td>
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<tr>
<td>CCSS.ELA-LITERACY.SL.9-10.3</td>
<td>Evaluate a speaker’s point of view, reasoning, and use of evidence and rhetoric, identifying any fallacious reasoning or exaggerated or distorted evidence.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.SL.9-10.4</td>
<td>Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.</td>
</tr>
<tr>
<td>CCSS.ELA-LITERACY.SL.11-12.1</td>
<td>Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 11-12 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.</td>
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</tbody>
</table>
| CCSS.ELA-LITERACY.SL.11-12.2 | Integrate multiple sources of information presented in diverse
<p>| CCSS.ELA-LITERACY.SL.11-12.3 | Evaluate a speaker's point of view, reasoning, and use of evidence and rhetoric, assessing the stance, premises, links among ideas, word choice, points of emphasis, and tone used. |
| CCSS.ELA-LITERACY.SL.11-12.4 | Present information, findings, and supporting evidence, conveying a clear and distinct perspective, such that listeners can follow the line of reasoning, alternative or opposing perspectives are addressed, and the organization, development, substance, and style are appropriate to purpose, audience, and a range of formal and informal tasks. |
| <strong>History/Social Studies</strong> | |
| CCSS.ELA-LITERACY.RH.9-10.1 | Cite specific textual evidence to support analysis of primary and secondary sources, attending to such features as the date and origin of the information. |
| CCSS.ELA-LITERACY.RH.9-10.2 | Determine the central ideas or information of a primary or secondary source; provide an accurate summary of how key events or ideas develop over the course of the text. |
| CCSS.ELA-LITERACY.RH.9-10.3 | Analyze in detail a series of events described in a text; determine whether earlier events caused later ones or simply preceded them. |
| CCSS.ELA-LITERACY.RH.9-10.4 | Determine the meaning of words and phrases as they are used in a text, including vocabulary describing political, social, or economic aspects of history/social science. |
| CCSS.ELA-LITERACY.RH.9-10.5 | Analyze how a text uses structure to emphasize key points or advance an explanation or analysis. |
| CCSS.ELA-LITERACY.RH.9-10.6 | Compare the point of view of two or more authors for how they treat the same or similar topics, including which details they include and emphasize in their respective accounts. |
| CCSS.ELA-LITERACY.RH.11-12.1 | Cite specific textual evidence to support analysis of primary and secondary sources, connecting insights gained from specific details to an understanding of the text as a whole. |
| CCSS.ELA-LITERACY.RH.11-12.2 | Determine the central ideas or information of a primary or secondary source; provide an accurate summary that makes clear the relationships among the key details and ideas. |
| CCSS.ELA-LITERACY.RH.11-12.3 | Evaluate various explanations for actions or events and determine which explanation best accords with textual evidence, acknowledging where the text leaves matters uncertain. |
| CCSS.ELA-LITERACY.RH.11-12.4 | Determine the meaning of words and phrases as they are used in a text, including analyzing how an author uses and refines the meaning of a key term over the course of a text (e.g., how Madison defines faction in Federalist No. 10). |
| CCSS.ELA-LITERACY.RH.11-12.6 | Evaluate authors' differing points of view on the same historical event or issue by assessing the authors' claims, reasoning, and evidence. |</p>
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<td>CCSS.ELA-LITERACY.WHST.9-10.1</td>
<td>Write arguments focused on discipline-specific content.</td>
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<td>CCSS.ELA-LITERACY.WHST.9-10.7</td>
<td>Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem; narrow or broaden the inquiry when appropriate; synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation.</td>
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<tr>
<td>CCSS.ELA-LITERACY.WHST.9-10.8</td>
<td>Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the usefulness of each source in answering the research question; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and following a standard format for citation.</td>
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<td>CCSS.ELA-LITERACY.WHST.9-10.9</td>
<td>Draw evidence from informational texts to support analysis, reflection, and research.</td>
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<td>CCSS.ELA-LITERACY.WHST.11-12.8</td>
<td>Gather relevant information from multiple authoritative print and digital sources, using advanced searches effectively; assess the strengths and limitations of each source in terms of the specific task, purpose, and audience; integrate information into the text selectively to maintain the flow of ideas, avoiding plagiarism and overreliance on any one source and following a standard format for citation.</td>
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**Next Generation Science Standards**


N/A