


Name: _____

Date: _____

Black History Month: 21st Century Science Vocabulary

Directions: Each February, people all over the United States celebrate Black History Month, a time dedicated to an important and powerful group within our national community. Before you engage in the readings on the next pages, define these science vocabulary words so that you feel prepared and have confidence!

 Vocabulary Word	What is the definition?
advance:	
significant:	
contribution:	
segregation laws:	
civil rights:	
discrimination:	
calculations:	
patent:	
progress:	
physicist:	
mathematician:	

Black History Month: 20th Century Scientists

Directions: Use the following readings about Katherine Johnson and Edward Bouchet to learn more about famous and influential Black scientists from the 20th century. First, read the biography about Katherine Johnson. Then, read the biography about Edward Bouchet. Highlight or take notes as you read. After Bouchet's reading, answer the questions in complete sentences.

Reading 1 of 2

Katherine Johnson Biography (1918-2020)

Katherine Johnson was a Black American and influential mathematician who lived to be 101 years old.

During her lifetime, she made many **significant contributions** to science. Early in her career, Johnson entered the workforce as a "computer." Before people had the digital computers we know and love today, people were hired to solve complex problems. Johnson was one of these people and did all of her "computing" to support America's booming space industry. She did this alongside other women who were also called "computers." Even though they had an important role, **segregation laws** kept Johnson and these women from receiving fair treatment. For example, they had to walk to a different building to use the restroom because laws prevented them from using White bathrooms. These women also couldn't take credit for the work they did by putting their names on reports.

However, as Johnson grew into her career, **civil rights progressed**, and technology created change, Johnson contributed to many projects for NASA (National Aeronautics and Space Administration). When NASA first began using actual computers to make **calculations**, they depended on Johnson to check the computer's work.

As a result of being both Black and a woman, Johnson felt that she had to be especially confident and direct with many upper level coworkers, who were mostly White men. Through her strength and smarts, she earned respect. Johnson's skills, personality, and dedication made her an essential part of the world of science.

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Black History Month: 20th Century Scientists

Directions: Use the following reading to learn more about a famous and influential Black scientist from the 20th century. Highlight or take notes as you read. Use the Johnson and Bouchet readings, answer the questions below in complete sentences


Reading 2 of 2

Edward Bouchet Biography (1852-1918)

Dr. Edward Bouchet was a physicist who was one of the first Black men to graduate from Yale College, a school for very dedicated learners. He earned a doctorate in physics, which is the highest title a person can earn from a college.

Even though he was very educated, Bouchet had a difficult time finding a job after earning his degree from college. This was because of **discrimination**. However, Bouchet was able to find jobs in schools where he taught both chemistry, physics, and astronomy. He delivered many speeches for students in order to spark their interest in science. Additionally, he was also dedicated to getting students the supplies they needed and asked for more lab space and tools so students could perform experiments.

He faced many challenges as a Black man in society, but remained committed to both science and education all his life.



 **Question:** If Katherine Johnson and Edward Bouchet met, what thoughts might they share with one another?


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Black History Month: 21st Century Scientists

Directions: Each February, people all over the United States celebrate Black History Month, a time dedicated to an important and powerful group within our national community. Use the following readings to learn more about famous and influential Black scientists from the 21st century. After each reading, respond to the questions in full-sentences. Highlight or take notes as you read.

 Mark Dean (1957-)	 Dr. Hadiya-Nicole Green (1981-
<p>Mark Dean is an American computer scientist. With a team of people, he helped create the first ever personal computer in the 1980s. Without him, we might not have access to all the device we enjoy each and every day. After that, he invented the computer parts that allow modern computers to connect to accessories. In fact, he is the inventor of many computer parts and functions. He has many patents that protect his ideas and creations.</p> <p>After he retired from his work as a computer scientist, Dean decided to become a teacher at a college.</p>	<p>Dr. Hadiya-Nicole Green is an American physicist and doctor. She developed a cancer treatment that uses lasers to target bad cells without harming healthy cells. She has been practicing using this technology with mice and hopes that her work can someday be applied to humans.</p> <p>Dr. Green created the Ora Lee Smith Cancer Research Foundation in memory of her aunt, who sadly passed away from cancer. Dr. Green is also an educator at Tuskegee University, where she teaches and mentors Black students.</p>

 **Question:** How have Mr. Dean and Dr. Green's contributions to science helped society advance? What can be learned from their experiences?