Johnathan E. Black In Physics Juneteenth Essay 31 May 2021

## Neil DeGrasse Tyson A black physicist

"Ever since there have been people, there have been explorers, looking in places where others hadn't been before. Not everyone does it, but we are part of a species where some members of the species do-to the benefit of us all." -Neil DeGrasse Tyson

Imagine a world without great explorers and their discoveries. The world would be a very different place if this were the case. Neil DeGrasse Tyson is one of the world's most well-known African American scientists, and his ambition to explore space continues the great legacy of Black explorers like Matthew Henson, who discovered the North Pole, and Jean Baptist Point Du Sable, who explored present-day Chicago. And, where Henson and Point Du Sable utilized the compass, Tyson utilizes physics to assist him to discover unexplored areas in space.

African-Americans have a rich history in science that even extends to the field of physics. Erik Gregerson, an author for the *Encyclopedia Brittanica* writes that Neil DeGrasse Tyson is a world-renowned physicist who specializes in astrophysics, which is the study of how stars, planets, and other objects in the universe function. In addition to his love of science, Tyson has also worked as a teacher, actor, philosopher, television editor, and author, among other things. He is one of America's best physicists, as well as one of history's most influential black scientists and a fierce advocate for space exploration.

The tale of how and why Tyson became a physicist is fascinating. He was born in New York in 1958, and his interest in astronomy began when he was a child. It's simple to understand where his motivation came from, given he was born to parents who were both scientists. According to Eric J. Larson, Ph.D., Sunchita Tyson, Neil's mother, was a gerontologist which is someone who examines the aging process and old age. His father, Cyril deGrasse Tyson, on the other hand, was a sociologist, or someone who studies people or society. As a child, Tyson visited the Hayden Planetarium at the American Museum of Natural History in New York City. What he observed amazed him, and he developed a passion for physics as a result. Tyson received a master's degree in astronomy from the University of Texas and a bachelor's degree in physics from Harvard University. He also graduated from Columbia University with a Ph.D. in astrophysics.

Tyson's career took off when he graduated from college and began working for the Hayden Planetarium, the same planetarium that he had visited as a child. Larson states that Tyson worked there as a staff scientist at the time until 1996 when he took over as director of the planetarium. Many institutions, including the University of Maryland, the Hayden Planetarium, and Princeton University, have benefited from his research. He has also made several television appearances and has worked with National Geographic, PBS, the History Channel, and other organizations. Gregerson added that Tyson is also an author, having written or co-authored over 20 books on subjects including astronomy and philosophy. Astrophysics for People in a Hurry, Death by Black Hole, Letters from an Astrophysicist, Welcome to the Universe, Origins, and Astrophysics for Young People in a Hurry (which is aimed at a younger audience) are some of his most well-known works. He also works for NASA, which he advocates.

Along with his long list of accomplishments, he also faced many challenges that he had overcome. Larson states that as a young black boy, Tyson's neighbors frequently reported him to the police for observing the stars, which they considered to be suspicious activity. He would, in fact, climb to the top of his roof and gaze at the stars. Tyson would not stop staring at the stars no matter how many times the cops were called. School and his teachers were other obstacles he had to conquer. He never received favorable feedback from his teachers. In fact, his teachers never predicted that he would achieve greatness or excel at anything until middle school when his instructor discovered his interest in astronomy. Even as an adult, he struggled with troubles and had to overcome obstacles. In the whole United States, he was one of just seven African American astrophysicists.

Tyson's many contributions have helped to shape how I personally see myself represented in STEM. Because of Tyson, there are now more opportunities for black people who want to study subjects like physics or science. Tyson has helped many African Americans feel comfortable researching science and physics. He has motivated me even greater in the area and has pushed me to strive harder and achieve more. Tyson's curiosity and drive to excel and explore the universe inspires me to do the same. Since he excelled in physics, I feel comfortable with my interest in physics and learning more about it. For example, from the third through seventh grade, I participated in The Frank S. Greene Scholars Program, which helps build STEM confidence and competence in African-American youth in the San Francisco Bay Area. There, I was able to learn and be inspired by black scientists and educators.

There are countless ways Neil DeGrasse Tyson has impacted the science community. Through his research, he has become one of the scientists who represent the black community. He is a huge role model not only for African Americans but for anybody interested in physics and science.

## WORKS CITED

Gregersen, Erik. "Neil deGrasse Tyson". Encyclopedia Britannica, 3 Dec. 2021, https://www.britannica.com/biography/Neil-deGrasse-Tyson. Accessed 29 May 2022.

Larson, Ph.D., Eric J. "502 Bad Gateway." Neil deGrasse, academicinfluence.com/people/neil-degrasse-tyson. Accessed 30 May 2022. Famous Scientists. "Neil deGrasse Tyson - Biography, Facts and Pictures." *Famous Scientists*, 25 Feb. 2018, www.famousscientists.org/neil-degrasse-tyson.