



Impact Statement

Claire Fang, Grade 8

Our Star, Henrietta Swan Levitt, 2026

Colored pencil on paper, 18 x 12 inches

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Unsung Hero: Henrietta Swan Leavitt

As a child, I always wondered about our universe and space. I thought that the idea of space was very fascinating. I often asked myself questions: How big is the universe? How much have we discovered? How did we discover the stars that we know today? When I was scrolling through the Unsung Hero list, Henrietta Swan Levitt stood out to me. Yes, it was due to my love for space but also her story. Choosing Henrietta would also allow me to share her story of perseverance and highlight her as the perfect role model for kids who are working toward a dream but feel like giving up. She is also the ideal inspiration for those afraid of trying new things. By taking an astronomy course, she was able to find her lifelong passion for the stars.

Henrietta was born on July 4, 1868, in Lancaster, Massachusetts. At first, she studied art and music at Oberlin College. However, she transferred to the Society for the Collegiate Instruction of Women. In her final year, she took an astronomy course, which led her to discover her lifelong passion for stars. Unfortunately, after graduating in 1892, Henrietta became very sick with an illness that left her deaf. Even though her health slowed her down, her passion in astronomy never faded. In 1895, she began volunteering at the Harvard College Observatory and worked with other women. They were known as “computers,” who were placed in charge of studying variable stars using photographic glass plates of the night sky. Throughout her career, she discovered 2,400 variable stars. In 1908, Henrietta made a discovery about Cepheid Stars, which are a special type of variable star. She noticed that the longer it took a star to go from bright to dim and back again, the brighter the star was. This discovery became known as the period-luminosity relationship. Due to this discovery, astronomers were able to calculate the distance to faraway stars and galaxies by measuring how long their light cycles lasted. It also led to Hubble’s proof that the universe is expanding, also known as Hubble’s Law.

Additionally, the Hubble Space Telescope was made possible due to Henrietta’s work. To this day, it continues to use Henrietta’s period-luminosity relationship to measure the universe’s rate of expansion. The last major contribution Henrietta developed was a standard system of measuring stars, which became known as the “Harvard Standard.” It was adopted in 1913. During her lifetime, Henrietta never got to see the result of her work. Even though she was chosen as an applicant for the Nobel Peace Prize in physics in the year 1925, she had already died 4 years prior due to cancer. Today, her name still lives on in the sky through the 2,400 stars she discovered, the asteroid 5383 Leavitt, and a crater on the Moon named in her honor.

During her lifetime, Henrietta achieved many accomplishments. My goal when creating this artwork was to show her story and achievements she accomplished during her lifetime. The bottom half of the artwork shows Henrietta observing a photographic glass plate of the night sky, which emphasizes how she often worked day and night observing the photographic plates to see if there were any changes in the light. The building in the window is Harvard Observatory College, which is the place she worked at and made discoveries and developed systems. At the top of the artwork, I drew three stars with a measuring tape, which represents the fact that she developed a standard system of measuring stars. Among the three stars that I drew, two were the Hubble Space Telescope and the Milky Way. The Hubble Space Telescope symbolizes how her work led to Hubble's discovery and how her work is still being used today by the Hubble Space Telescope. The Milky Way represents the thousands of stars she discovered that were located in the Milky Way during her lifetime. The middle star is her portrait, which represents how she is a star, a role model, and someone that many generations can look up to (in the sky).

Henrietta is a role model for many people, including me. Two factors that make her admirable and inspirational are that she tried something new and never gave up. Since she tried something new by taking an astronomy class in her final year of college, she was able to discover her passion for the stars and space. This led her to make major and impactful contributions to space discovery and the space community. Without her, we would not have been able to have Hubble's Law, or the Hubble Space Telescope. This is a perfect example of how trying something new can lead one to discover something new and make a giant impact in the world. As someone who does not like taking risks, learning about her story made me realize that I should try new things, even if they do not seem interesting at first. It may end up becoming something great in the future. Another factor that makes her inspirational is how she never gave up. After she developed hearing loss and became deaf, Henrietta never gave up and stopped studying the stars. This example emphasizes that when there are obstacles in the way, you should never give up on your passion or dream. Henrietta's story is something different, which makes her unique from other heroes and important figures. In the future, I hope to share her story with others through this artwork. Her impact remains with us every time we look up in the sky and admire the stars.

References:

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[https://www.womenshistory.org/education-resources/biographies/henrietta-swan-leavitt#:~:text=More%20than%20three%20years%20after,instead%20\(he%20did%20not\)](https://www.womenshistory.org/education-resources/biographies/henrietta-swan-leavitt#:~:text=More%20than%20three%20years%20after,instead%20(he%20did%20not))