

Dr. Gladys West

(October 2019)

A lot of us use GPS to find new places, to help us when we get lost, or to escape traffic. Yes, we often use GPS, but most of us do not know that an African American woman named Dr. Gladys West was the person to help develop it. Dr. West is a mathematician from Virginia. In 2018, at the age of 87, she was inducted into the Air Force Space and Missile Pioneers Hall of Fame by the United States Air Force.

As a child, Dr. West did not aspire to work in a factory or on a farm like many other people. To escape these two job paths, Dr. West knew she had to hit the books and do well so she could be at the top of her class. She did and she went to Virginia State University. Math was her major and when she was done with that, she went back for her Master's degree as well. These were great accomplishments for an African American woman at that time in history

because most colleges did not let people of color attend. However, historically black colleges, like Virginia State, gave talented people like Dr. West the opportunity to attend classes.

Dr. West went to work at the Naval Surface Warfare Center Dahlgren Division, where she led a number of big projects. She was also a computer programmer. She held these jobs and got her second Master's at the same time.

In the 1960s, Dr. West took part in a study about the planets of Pluto and Neptune. After this, she began to look at data from satellites so she could make accurate models of our planet. She did a good job getting the shape just right, so she was made project manager of SeaSat, the first satellite orbiting Earth that could sense oceans.

Between the mid-1970s and 1980s, Dr. West programmed an IBM computer to provide more exact data to model the shape of the Earth. Dr. West had to

use complex math rules to explain gravity, tides, and other things that distort our planet's shape. All of this is the basis for the GPS we use today.

Dr. West was at her job for 42 years. However, she is not well known to the rest of the world. That is because for Dr. West, it was never about fame or fanfare—it was about doing a good job. And she did. After all, we can find our way home from just about anywhere, thanks to Dr. West.

Teacher Resources

Please note: this non-controlled readable text passage features a ***description text structure***. As such, it is written to be ***at least 80% decodable at Substep 4.2***. A specific decodability score is listed below.

- This text passage is 80.05% decodable at Substep 4.2

Text Easability Scores

If you would like to measure the text easability scores of this passage, please follow the directions below.

1. Visit the Coh-Metrix Text Easability Assessor website at <http://tea.cohmetrix.com/>. If you do not already have a login and password, create one. It is free and easy to sign up for access to the website.
2. Once you have created an account and sign in, you will be taken to a page with an empty, white text box. Copy and paste the text from this passage into the empty, white text box. Make sure you are only copying and pasting the body of the passage. Do not include the title, date, or any of the resources present in the passage.
3. When you have pasted the passage into the text box, click on the red button beneath the text box that says "Analyze." There will be a short delay and after a few seconds, you will see a bar graph appear to the right of the screen.
4. The bar graph will give you the percentages for several text characteristics including: narrativity, syntactic simplicity, word concreteness, referential cohesion, and deep cohesion.
5. Below the bar graph, the Flesch Kincaid Grade Level is also included for your benefit.
6. Lastly, a paragraph is provided that explains the meaning of the measurements of the text characteristics for your particular passage.
7. Once you have completed measuring your passage, you can click on the "Clear" button below the text box and measure another passage, if you wish.

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