

CLASSIFIED

The Secret Career of MARY GOLDA ROSS,
Cherokee Aerospace Engineer



Whether you are creating new lessons or thinking of adding Mary Golda Ross's story from *Classified* to existing events, here are some items that would integrate the book and Ross's STEM values into your project.

Readers Theater Script • Google Slides • Event Poster Banner Asset • Nametag Template
YouTube Slides • Participation Award Medallion Template

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CONTENTS

Readers Theater Script

Whether you are sharing *Classified* in a classroom or in remote learning, we have created a script for 20 readers with 3 lines each. The downloadable document will allow you to adapt the read-aloud script to your needs. Imagine performing the book as a Readers Theater before a STEM exposition!

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Google Slide Background

Author Traci Sorell wrote *Classified* to put Mary Golda Ross's contributions "in the frame" of STEM teaching. If you are teaching a STEM unit in person or online, you can download a slide background with Ross's portrait framing it.

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Event Poster Banner Asset

If you are holding a STEM event for families or other students and wish to honor Ross's legacy, this downloadable can be added to any poster, flyer, or event signage. The image reads, "Our event honors Mary Golda Ross, Cherokee Aerospace Engineer."

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Nametag Template

To connect Mary Golda Ross's STEM journey to your students' STEM learning, you can use this nametag template for STEM expositions. The bottom of the nametag reads, "I am inspired by Mary Golda Ross, Cherokee Aerospace Engineer!"

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YouTube Slides

If you or your students are uploading videos of your rockets or other aerospace projects, you can download images that would include Mary Golda Ross in your productions. The three sequential slides read, "This project was inspired by... Cherokee Aerospace Engineer Mary Golda Ross...Read about her groundbreaking work!"

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Participation/Award Medallion Template

To award students for STEM engagement and expositions, we have included a cut-out medallion template. It features a portrait of Mary Golda Ross and the Cherokee values that influenced her career.

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Teaching Guide

We also offer a teaching guide full of pre-existing lesson plans and resources for grades 2-7, including aerospace STEM lesson plans, details on Native American contributions to the US Space Program, additional educator resources, a Cherokee values & STEM journaling sheet, and a Cherokee language lesson.

https://lernerbooks.com/classified_tg

Poster

You can also download a bilingual poster of the values Mary Golda Ross brought to her learning and her career.

https://lernerbooks.com/classified_poster

READERS THEATER SCRIPT

This Readers Theater script for the picture book *Classified: The Secret Career of Mary Golda Ross, Cherokee Aerospace Engineer* is laid out for 20 readers plus a single “Lead” role. If you have 20 readers, each reader will have three lines from the book to read aloud.

You are welcome to alter the roles in the document, but please do not alter the text. In respect for the book’s creators, please do not use this script as a replacement for the actual book in your classroom. As with all picture books, *Classified* is best experienced with Traci Sorell’s text and Natasha Donovan’s illustrations beautifully blended on the page. The book is available wherever books are sold and shared.

CLASSIFIED: READERS THEATER SCRIPT

Lead: Together, we will be reading the picture book biography *Classified: The Secret Career of Mary Golda Ross, Cherokee Aerospace Engineer* by Traci Sorell, illustrated by Natasha Donovan, and published by Millbrook Press.

The book begins with a note from author Traci Sorell on Cherokee Values:

- 1: While a written guidebook on Cherokee values does not exist, important lessons have been taught by Cherokee families to their children across the generations.
- 2: Mary Golda Ross’s Cherokee parents instilled the tribe’s values in their children. Some of the values that shaped Mary include:
- 3: gaining skills in all areas of life (both within and outside the classroom),
- 4: working cooperatively with others,
- 5: remaining humble when others recognize your talents,
- 6: and helping ensure equal education and opportunity for all.

Lead: The author also includes a quote from Mary Golda Ross, the subject of this biography:

- 7: “Do the best you can and search out available knowledge and build on it.
- 8: I started with a firm foundation in mathematics and qualities that came down to me from my Indian heritage.”

[Wait for the page to turn.]

READERS THEATER SCRIPT, CONTINUED

9: Young Mary Golda Ross pushed her pencil across the page.

10: Puzzling out math equations made her happy.

11: Teenage girls in the 1920s though weren't expected to enjoy or excel in math or science.

12: But Mary did, and she blazed a trail for others.

[Wait for the page to turn.]

13: In the hills of the northeastern Oklahoma, Mary's Cherokee tribe provided education for everyone.

14: Her great-great grandfather, John Ross, had served as Principal Chief of the Cherokee Nation.

15: He helped create a school that later became a state teacher's college, which Mary began attending at age sixteen.

16: When the boys refused to sit next to the only girl in math class, it motivated her to get better grades than they did.

17: And Mary didn't stop there.

[Wait for the page to turn.]

18: Holding true to her tribe's belief about gaining life skills in all areas, Mary took advantage of every opportunity to learn.

19: In college, she majored in math, believing "the world is so technical, if you plan to work in it, a math background will let you go farther and faster."

20: After graduation, Mary taught math and science to high school students.

1: Even so, she saw more ways to grow and contribute.

[Wait for the page to turn.]

READERS THEATER SCRIPT, CONTINUED

2: Mary moved to Washington, DC, where a supervisor at the Bureau of Indian Affairs (BIA) noticed her talent.

3: She was then hired to be the girls' advisor at the bureau's coed boarding school in Santa Fe, New Mexico.

4: The Cherokee value of instructing in a gentle, thoughtful way guided Mary as she encouraged the next generation of Pueblo and Navajo girls to learn and excel.

5: Mary soon found that others outside the classroom needed her math and science knowledge too.

[Wait for the page to turn.]

6: After the United States entered World War II in 1941, Mary left her teaching career and moved once again, this time to Los Angeles, California.

7: Mary got a job as a mathematician for the Lockheed Aircraft Corporation.

8: She helped solve a design problem affecting the safe operation of the P-38 Lightning Fighter, one of Lockheed's fast-flying planes, and she enjoyed the research.

9: Now she wanted to design and build aircraft and spacecraft as an engineer.

[Wait for the page to turn.]

10: At that time, only men served as engineers in the large corporation. Mary thought back to when she was the lone girl in her math and science classes.

11: She wasn't intimidated. But she knew she needed more training.

12: Mary focused. The company helped her take engineering classes at a nearby university. She had to balance her job duties and homework.

13: Would the men Mary worked with accept her as their equal?

[Wait for the page to turn.]

READERS THEATER SCRIPT, CONTINUED

14: They did! Mary became Lockheed's first female engineer and helped other women join the field.

15: She modeled the Cherokee value of working together in mind and heart.

16: She shared her knowledge and asked questions to improve designs.

17: Her male colleagues respected her intellect, her drive to solve problems, and how she worked in the team.

18: None of them realized, though, what would come next.

[Wait for the page to turn.]

19: With World War II almost over, the race between the United States and the Soviet Union to reach outer space sped up.

20: The company selected Mary to be one of forty engineers in a super-secret work team. Mary described their mission as "taking the theoretical and making it real."

1: What did that even mean?

2: It meant Mary worked on projects that people had only imagined and some no one had ever thought of before.

3: No vessel had ever flown nonstop around the Earth—with or without a pilot. Flying beyond Earth?

4: That seemed impossible! Determined, she and her colleagues would figure out how to do it.

[Wait for the page to turn.]

5: When Mary accepted the invitation to join Lockheed's top-secret group, known as the Skunk Works division, she knew most of her work would be classified.

6: Today a lot of it still is.

7: When Mary appeared on a "guess my job" TV game show, she surprised the host when her line of work was finally revealed.

8: Even though Mary worked on world-changing projects, she never sought the spotlight.

[Wait for the page to turn.]

READERS THEATER SCRIPT, CONTINUED

9: Along with her colleagues, Mary researched orbiting satellites—like those that monitor weather patterns and send signals to televisions.

10: She designed concepts for space travel to Venus and Mars.

11: Her critical work on spacecraft later helped the Apollo space program send astronauts to the moon!

12: What if nobody ever knew her name or recognized her as the important engineer she was?

[Wait for the page to turn.]

13: That didn't matter to Mary. Her life reflected another Cherokee value—humility.

14: Mary never bragged or drew attention to her skills.

15: Her work, including helping to put a man on the moon, spoke for itself.

16: Whenever Mary received awards, she always thanked her colleagues because she knew no one person deserved credit for what everyone had done together.

[Wait for the page to turn.]

17: In her quiet, steadfast way, Mary kept right on blazing a trail for others to follow for the rest of her life.

18: Although her work was classified, Mary still had much to share.

19: She never stopped recruiting American Indians and young women to study math and science and helping support them to become engineers.

20: Mary's work and her legacy of service have helped many others become trailblazers too.



CLASSIFIED

The Secret Career of **MARY GOLDA ROSS**,
Cherokee Aerospace Engineer

Classified: The Secret Career of Mary Golda Ross, Cherokee Aerospace Engineer by Traci Sorell and illustrated by Natasha Donovan (Millbrook Press).
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OUR EVENT HONORS

MARY GOLDA ROSS

Cherokee Aerospace Engineer

Read about her STEM contributions in the book *Classified: The Secret Career of Mary Golda Ross, Cherokee Aerospace Engineer* by Traci Sorell and illustrated by Natasha Donovan (Millbrook Press). Image © Natasha Donovan.



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$$v(t) = -2g \int_0^{t_2} \frac{D}{W} v dt$$

$$= \int_0^{t_2} \frac{D}{W} v dt$$

$$\frac{1}{2} C_a$$

I am inspired by **MARY GOLDA ROSS**
Cherokee Aerospace Engineer

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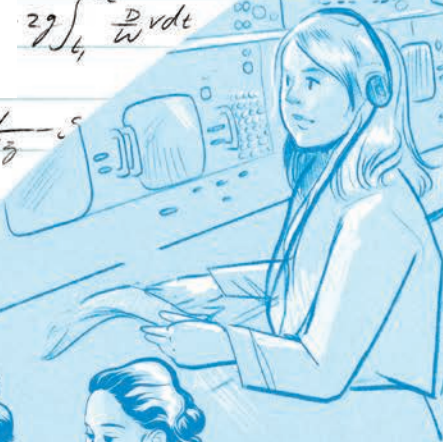
This project was inspired by...

$$x_2 - x_1 = \int_{t_1}^{t_2} v \cos \delta dt$$

$$2g \int_{t_1}^{t_2} \frac{D}{w} v dt$$

$$\delta_2 - \delta_1 = \int_{t_1}^{t_2} \left[\frac{v}{L_0 g} - c \right]$$

$$= x_2 - x_1 = \int_{t_1}^{t_2} v \cos \delta$$



$$v = \int_{t_1}^{t_2} \frac{D}{w} \left[\frac{L_0}{L_0 g} - c \right]$$

equations (13) and (15)
Since $\delta = \delta_2$

Cherokee Aerospace Engineer

MARY GOLDA ROSS



**Read about her
groundbreaking work!**

