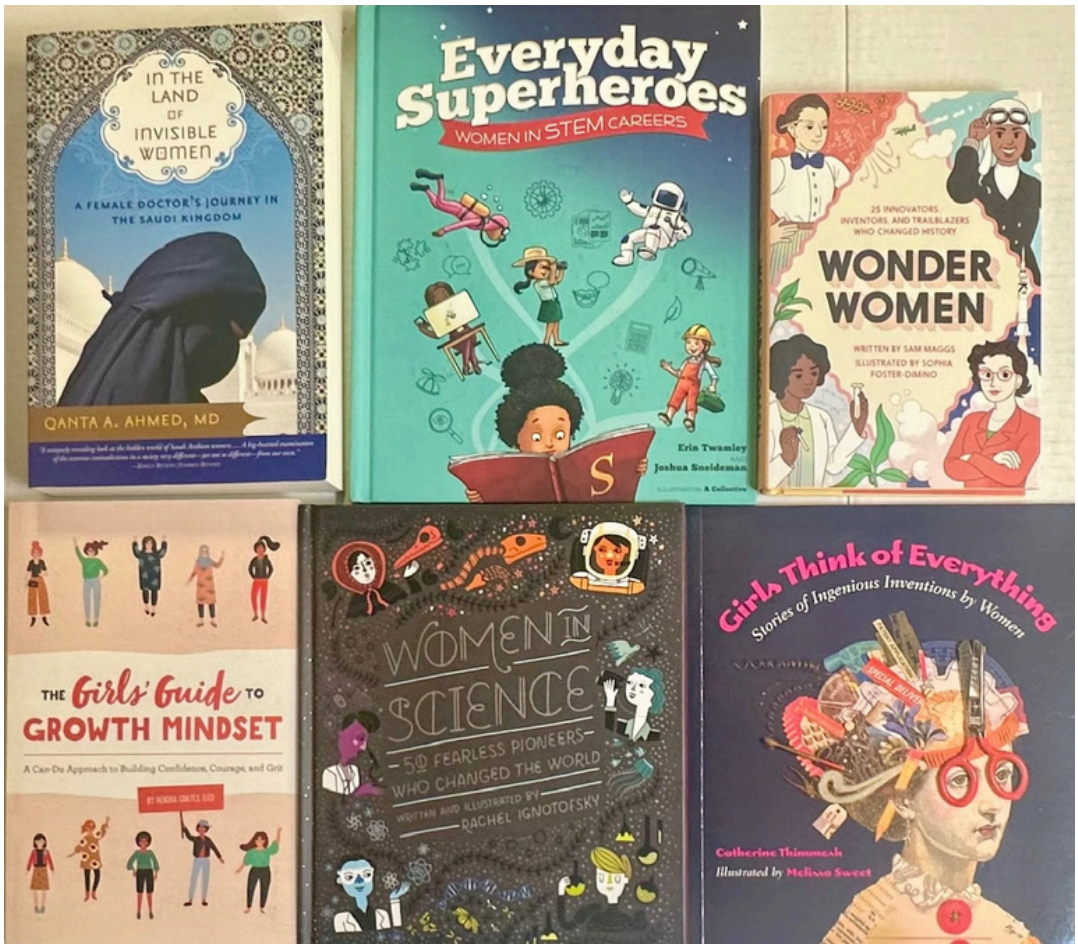
Women in STEM Advanced Book Collection



Mid-Valley
STEM-CTE HUB

www.midvalleystem.org
midvalleystemctehub@linnbenton.edu
Linn-Benton Community College
Albany Campus - CC-212

Mid-Valley
STEM-CTE HUB

Women In STEM Collection

Curious minds take flight in Trailblazers in STEM, a vibrant picture book kit celebrating real-life women who transformed their childhood passions into groundbreaking careers. Through richly illustrated biographies and engaging narratives, this kit invites young readers to explore the world of science, engineering, invention, and imagination through the eyes of girls who never gave up on their dreams.

These beautifully written and illustrated books do more than tell stories—they plant seeds of possibility. Through themes of curiosity, resilience, and innovation, *Trailblazers in STEM* encourages every reader to ask bold questions, embrace challenges, and see themselves as future changemakers.

Grade Level	5th - 12th
Reading Level	Advanced

Mid-Valley
STEM-CTE HUB

Contents of Kit

- **Joan Procter, Dragon Doctor by Patricia Valdez & Felicita Sala -**Joan Procter, Dragon Doctor tells the captivating story of Joan, a girl fascinated by reptiles who grew up to become a pioneering curator and designer of the London Zoo's Reptile House, inspiring others with her passion and determination.

- **Grace Hopper: Queen of Computer Code by Laurie Wallmark & Kety Wu -** Grace Hopper: Queen of Computer Code tells the story of Grace Hopper, a pioneering computer scientist who coined the term "computer bug" and helped computers "speak English." Celebrated for her curiosity and rule-breaking spirit, Hopper's achievements continue to inspire young learners interested in science and math.

- **Wood, Wire, Wings by Kirsten W. Larson & Tracy Subisak -**Wood, Wire, Wings tells the story of Emma Lilian Todd, an inventive thinker who loved solving problems and dreamed of creating flying machines. Drawing inspiration from nature and learning from her failures, Lilian persevered to design aircraft that could truly fly.

- **CLASSIFIED: The Secret of Mary Golda Ross, Cherokee Aerospace Engineer by Traci Sorell & Natasha Donovan -** CLASSIFIED: The Secret Career of Mary Golda Ross tells the inspiring story of the first female engineer at Lockheed Aircraft, who helped design top-secret aerospace projects. Guided by her Cherokee values and love of math, Mary Golda Ross broke barriers and mentored future generations of Native Americans and women in STEM.

- **Queen of Physics: How Wu Chien Shiung Helped Unlock the Secrets of the Atom by Teresa Robeson & Rebecca Huang -** Queen of Physics tells the story of Wu Chien Shiung, a pioneering physicist who defied gender and racial barriers to become a global leader in nuclear physics. Nicknamed the "Queen of Physics," she made groundbreaking discoveries in beta decay and earned historic firsts in academia and science.

Mid-Valley
STEM-CTE HUB

Learning Extensions

STEAM Connections: Engineering - Math - Design

Learning Objectives:

- Cultivate early interest in STEM through engaging stories of real-life women innovators.
- Understand how curiosity, creativity, and perseverance lead to discoveries and inventions.
- Explore key STEM concepts through biographies of scientists, engineers, and inventors.
- Strengthen reading comprehension through narrative nonfiction and vocabulary development.
- Promote identity-building by connecting personal interests to real-world STEM careers.

Career Connections:

- **Zoologist -** Studying and caring for animals, designing habitats like Joan Procter's reptile house.
- **Computer Scientist -** Writing code and developing early computer languages, like Grace Hopper.
- **Inventor/Aeronautical Engineer -** Designing flying machines, inspired by Emma Lilian Todd's innovations.
- **Aerospace Engineer -** Creating spacecraft and secret aircraft systems like Mary Golda Ross.
- **Physicist -** Researching atomic structure and nuclear physics, following in Wu Chien Shiung's footsteps.

Essential Employability Skills:

- Curiosity & Inquiry
- Resilience & Growth Mindset
- Creativity & Innovation
- Critical Thinking & Analysis
- Communication & Storytelling
- Cultural Awareness & Inclusion
- STEM Literacy & Technical Understanding

Mid-Valley
STEM-CTE HUB

Resources and Accessibility

Safety Guidelines

- **Avoid Food and Drinks Near Books -** Encourage clean, dry reading areas to prevent spills, stains, or water damage.
- **Handle Books Gently -** Model how to turn pages carefully, avoid bending spines, and store books upright or flat.
- **Use Clean Hands -** Have students wash or sanitize hands before handling shared books to keep materials in good condition.
- **Designate a Safe Storage Spot -** Store books in a sturdy, dry, and clearly labeled bin or tote to protect them from wear and tear between uses.

Accessibility

- **Use Book Stands or Holders -** Provide angled book holders or clipboards to support independent reading for students with mobility or motor challenges.
- **Pair Audio with Print -** Use audiobooks or teacher-read recordings when available to support students with reading disabilities or visual impairments.
- **Incorporate Read-Alouds and Peer Reading -** Offer opportunities for shared or buddy reading to help students who benefit from auditory learning or support with decoding.
- **Offer Visual Aids and Discussion Prompts -** Supplement books with images, models, or key vocabulary cards to reinforce understanding and engagement.

Library Catalog

Library Resources

Feedback

QR to feedback survey