ADULT ADVOCATES NEWSLETTER - JANUARY 2024

Empowering the Future - Women in Engineering and Technology

Welcome to January's edition of our newsletter, where we turn the spotlight on women's pioneering contributions to engineering and technology. As we celebrate key dates like Technology Day, Learn Your Name in Morse Code Day, Kid Inventor's Day, and Data Privacy Day, we focus on the vital role women play in shaping a tech-savvy future. **This month, in honor of National Mentoring Month, we emphasize the importance of mentorship in guiding young women toward careers in STEM.**

National Mentoring Month: Guiding the Next Generation of Women Engineers

January is National Mentoring Month, a time to acknowledge the transformative impact of mentorship in the field of engineering. This month, we encourage you to explore resources from the National Mentoring Partnership and the STEM Mentoring Program. These platforms offer invaluable insights and tools for fostering the growth of aspiring female engineers. Mentorship is a key driver in ensuring diverse representation and fostering inclusive environments in STEM fields. One of SWE's core values is mutual support, meaning that the organization fosters mentoring and the development of professional and personal networks. SWE members can take advantage of mentoring opportunities at conferences and through the SWE Mentor Network and Mentoring Committee. Get involved today!

Technology Day: Celebrating Women's Innovations

On Technology Day, celebrated on **January 6th**, we honor the remarkable achievements of women in technology. From developing groundbreaking software to pioneering new hardware, women engineers are at the forefront of technological advancement. Notable examples include Ada Lovelace, known as the first computer programmer for her work on Charles Babbage's early mechanical general-purpose computer, and Grace Hopper, a computer scientist who invented the first compiler for a computer programming language.

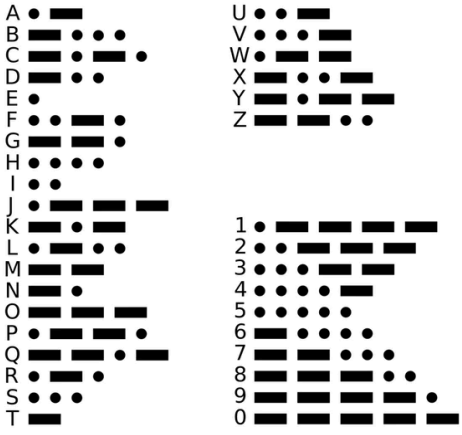
Data Privacy Day: The Role of Women in Cybersecurity

In an era where data security is paramount, Data Privacy Day, on **January 28th**, emphasizes the importance of protecting personal information. Women in cybersecurity play a crucial role in this field, developing secure systems and educating the public about data privacy. Host seminars or workshops on data privacy, inviting female cybersecurity experts to share their knowledge and experiences.

- ***Women Decoded WW2 Messages:*** During World War II, women played a significant role in code-breaking operations. At Bletchley Park in the UK, a large team of women, including Mavis Batey and Joan Clarke, were crucial in deciphering the Enigma and Lorenz ciphers.
- ***Rise in Leadership Roles:*** In recent years, the number of women in leadership roles within cybersecurity has been steadily increasing. According to Cybersecurity Ventures, **women now hold 25% of cybersecurity jobs globally, up from 10% in 2013**.
- ***Pioneers in Cybersecurity Education:*** Dr. Dorothy E. Denning, a renowned security researcher, has been influential in the development of cybersecurity education. She authored one of the first textbooks on the subject, "Cryptography and Data Security," helping shape the curriculum for cybersecurity courses worldwide.
- ***First Woman to Receive the National Medal of Technology and Innovation:*** Shirley Ann Jackson, a theoretical physicist, and the 18th president of Rensselaer Polytechnic Institute, was awarded the National Medal of Technology and Innovation in 2016. Her research in telecommunications paved the way for developments in portable fax, touch-tone telephones, solar cells, fiber optic cables, and the technology behind caller ID and call waiting.
- ***Increasing Diversity in Cybersecurity:*** Organizations like WiCyS (Women in CyberSecurity) and Girls Who Code are actively working to increase the participation of women in cybersecurity. They provide resources, mentorship, and scholarships to support and encourage women to pursue careers in this field.

Learn Your Name in Morse Code Day: Encouraging Curiosity and Connectivity

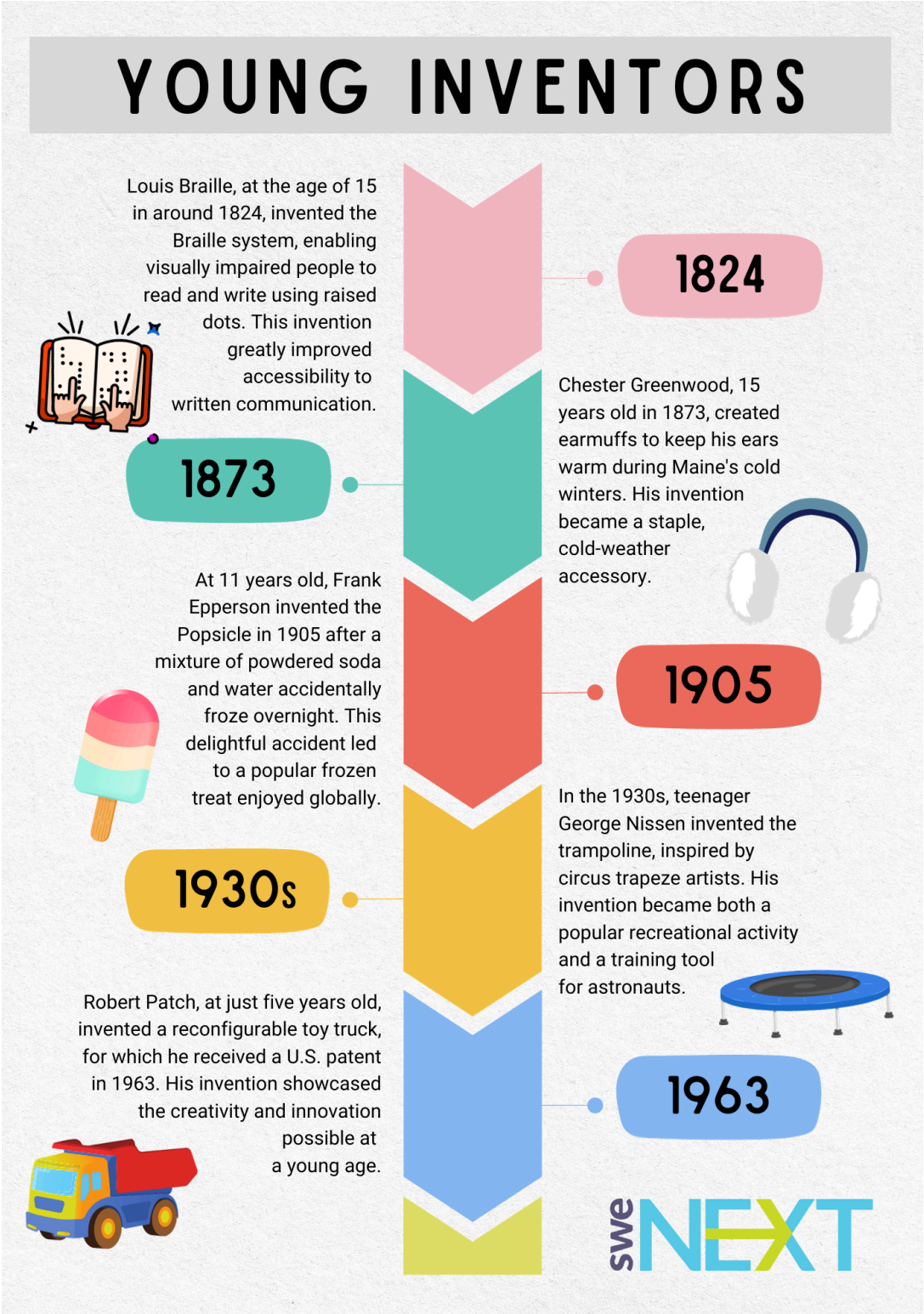
January 11th is an excellent opportunity to introduce students to the basics of Morse code, a form of communication that has played a vital role in technological history. Morse code is a method of transmitting text information as a series of on-off tones, lights, or clicks. Encourage your students or mentees to learn their names in Morse code, fostering a connection with the historical aspects of communication technology. Each letter and number is represented by a combination of dots *(short signals)* and dashes *(long signals)*.



Try a Morse Code Translator to hear your message aloud!

Kid Inventor's Day: Fostering Creativity and Problem Solving

On Kid Inventor's Day, **January 17th**, we spotlight young minds who are making strides in engineering and technology. This day is a chance to encourage creativity and innovative thinking in young girls, inspiring them to become the inventors and problem solvers of tomorrow. Consider organizing invention fairs or idea brainstorming sessions in schools and community centers.



Follow SWE Outreach on Social Media

Get in on the conversation and join our **Outreach Incubator Facebook page** to engage in discussions and receive tips for conducting outreach. Educators can join our **SWENextEd Facebook page** to find even more classroom resources.

SWENext HQ is also on social media!

Engage with fellow SWENexters, gain access to fun activities and see what SWENext is up to!

- **Facebook**
- **X, formerly known as Twitter**
- **Instagram**
- **YouTube**

Did someone share this email with you?

Subscribe Here to receive the monthly Adult Advocate Newsletter.