

The background of the entire page is decorated with various illustrations of pink cherry blossoms. Some are large and detailed with visible stamens, while others are smaller buds or branches. The blossoms are scattered around the central text area, creating a soft, spring-like atmosphere.

STEN & Rose

# Spring Quarter Newsletter



March 2024

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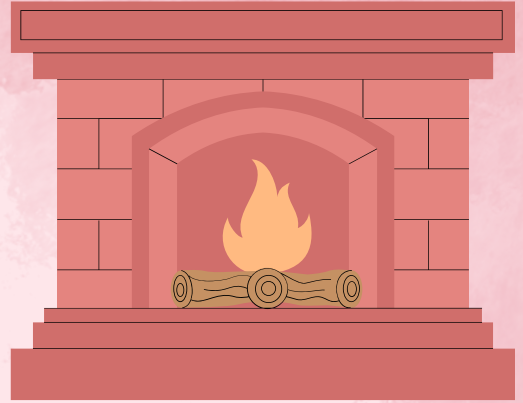
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# March in STEM

SUN	MON	TUE	WED	THU	FRI	SAT
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3 World Wildlife Day	4	5	6 National Dentists' Day	7	8 International Women's Day	9 National Genealogy Day
10	11	12	13	14 National Pi Day	15	16
17	18	19 Spring Equinox	20	21 International Day of Forests	22 World Water Day	23 World Meteorological Day
24 World Tuberculosis Day	25	26	27	28	29	30 National Doctors' Day
31 Bunsen Burner Day						

# Fireside Chats



## Fireside Chat

SAVE THE DATE:  
NOV 19  
2:00 - 2:45 PM EST  
1:00PM - 1:45PM CST  
11:00AM - 11:45AM PST



PLEASE USE THIS QR CODE  
TO JOIN THE FIRESIDE  
CHAT SESSION!

MEETING ID: 824 958 1372  
PASSCODE: FIRESIDE

Mandy Song is an experienced attorney in patent office practices. She is the founder and managing partner of Bayes.



MANDY SONG  
Patent Attorney

Thara Russell is an attorney specializing in patent law. She works as a senior manager at Capital One.



THARA RUSSELL  
Patent Counsel

OUR WEBSITE: STEM-ROSE.ORG

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During our most recent Fireside Chat, we conducted an exclusive interview with Dr. Mandy Song, an experienced patent attorney who majored in STEM during college. We also planned to interview Ms. Thara Russel, another attorney who specializes in patent law, but unfortunately, she could not make it due to a family emergency.

Nevertheless, the fireside chat was an awesome success. We learned why Dr. Song chose to pivot from STEM to patent law, discovered how her STEM background helped her with her current career, and heard some of her advice for girls in STEM today.

Watch the chat here:  
[link]





# Interview With Dr. Wang

STEM & ROSE

## **Breaking Barriers in Science: A Q&A with Dr. Jing Wang**



### **Bio**

Dr. Jing Wang is a distinguished physics professor at Eastern Kentucky University with 15 years of experience in Physics Education Research. She earned her undergraduate degree in Engineering Physics from Tsinghua University and completed her Ph.D. in Physics at Ohio State University. With a strong academic foundation, she has made significant contributions to education assessment and teacher preparation. In addition to her academic endeavors, Wang enjoys reading books.

Jolin is one of STEM & ROSE's outreach directors. Recently, Jolin was tasked with conducting a written interview with Dr. Jing Wang, who teaches physics at Eastern Kentucky University. Dr. Wang's research interests include education assessment and teacher preparation. The written interview was a great success, and her responses were insightful and helped us learn about her journey as a professor in STEM.

Read the responses here:  
[link]

# NASA STEM Opportunities



## Key Dates:

Registration Opens:  
February 12, 2024

Registration Closes:  
March 15, 2024

Event Date: April 11,  
2024

Event Time: 10:00  
a.m. – 1:00 p.m.  
Eastern

NASA Office of STEM Engagement is hosting an inspiring event called Girls in Stem at Glenn! This event aims to ignite interest in science, technology, engineering, and math (STEM) fields among young girls. Participants will have the opportunity to interact with women working in STEM at NASA Glenn, engage in exciting STEM activities, and tour NASA Glenn facilities.

This opportunity is open to fifth through eighth grade students enrolled at a public, private, charter, or home school located in NASA Glenn's home state of Ohio. Individuals or groups of up to 25 students per organization are welcome to register. Parents or guardians must apply on behalf of students under 14 years old, and the event is exclusively for students—no parents or adult caregivers allowed.

Registration is now open. If you are interested and eligible, make sure to sign up!

Learn more or register here:

<https://www.nasa.gov/girls-in-stem-at-glenn-2/>



# The Little Robot

A short story by: Claire Zhong

AI is getting more and more powerful every day. What if, one day in the future, a robot programmed to serve humanity starts glitching and becomes able to feel emotions?



I hum to life, electricity surging through my wiring. My sensors activate, my limbs stir, and my internal systems power on. An LED light blinks in my retina display, signifying that charging is complete. My metallic frame shimmers in the ambient light of my pod. The label on my side reads #675854.

Orders begin to scroll through my programming, guiding my motions. I disconnect from the charging port and roll out of my pod. My vision sensors show that I have arrived in a large white warehouse. Through my audio sensors, I detect whirring and humming as identical robots begin to do the same. They form a perfect line in the middle of the warehouse.

I am rolling over to my spot when I notice it. Robot #675860 is disrupting the pristine order, struggling to take its spot a few places ahead of me in line. None of the other bots seem to notice. My fan whirs louder as I sort through my programming, searching for the best course of action.

I was ordered to wait in line for further instructions, and I cannot ignore orders. So why do I feel compelled to aid #675860? My wiring sputters and sparks; my systems work in overdrive, trying to make sense of this odd phenomenon. According to my programming, the next move is clear: I should stay in line. But there is something new interfering with my code.





Before I can do anything, I am bombarded by a cacophony of sensations. I feel as if there are sharp needles stabbing deep into my wiring, a dull throb pounding inside me, and sparks exploding every fiber of my being.

Order, logic, and reasoning tangle into a mess of chaos and impulse. A new feeling blooms inside my system: a desire to connect with #675860. I realize that what I am feeling could be what humans call “emotion.”

The new feeling shoves into my programming, demanding attention. It overpowers everything I know, controlling my limbs and simulated consciousness.

Before I am aware of my actions, I am already rolling rapidly toward #675860. I extend my limbs and support its shuddering frame, guiding it until it reaches its place in line.



#675860 dips its metal head as if thanking me. Another emotion explodes inside me like sparks of electricity. It makes me feel warm, pooling into my body with a buzz of excitement. I feel good after helping #675860 and feel like the connection that transpired earlier has only become stronger.

The emotions make me wonder about things I’ve never thought of before. *Am I bound to my programming? Can I only follow orders? Or is there more to me than that?*

My programming says no, but I have just defied my programming. *Am I glitching?* I worry.

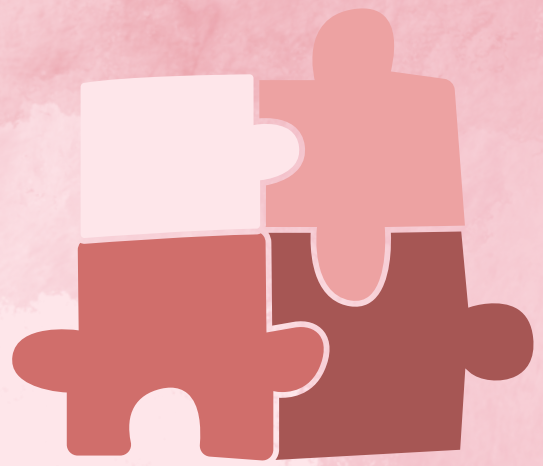
#675860 winks its lights at me as if it knows what I’m thinking. The emotion returns, and I suddenly feel like dancing.

*Yes, I’m definitely glitching, I decide. But maybe that’s a good thing.*

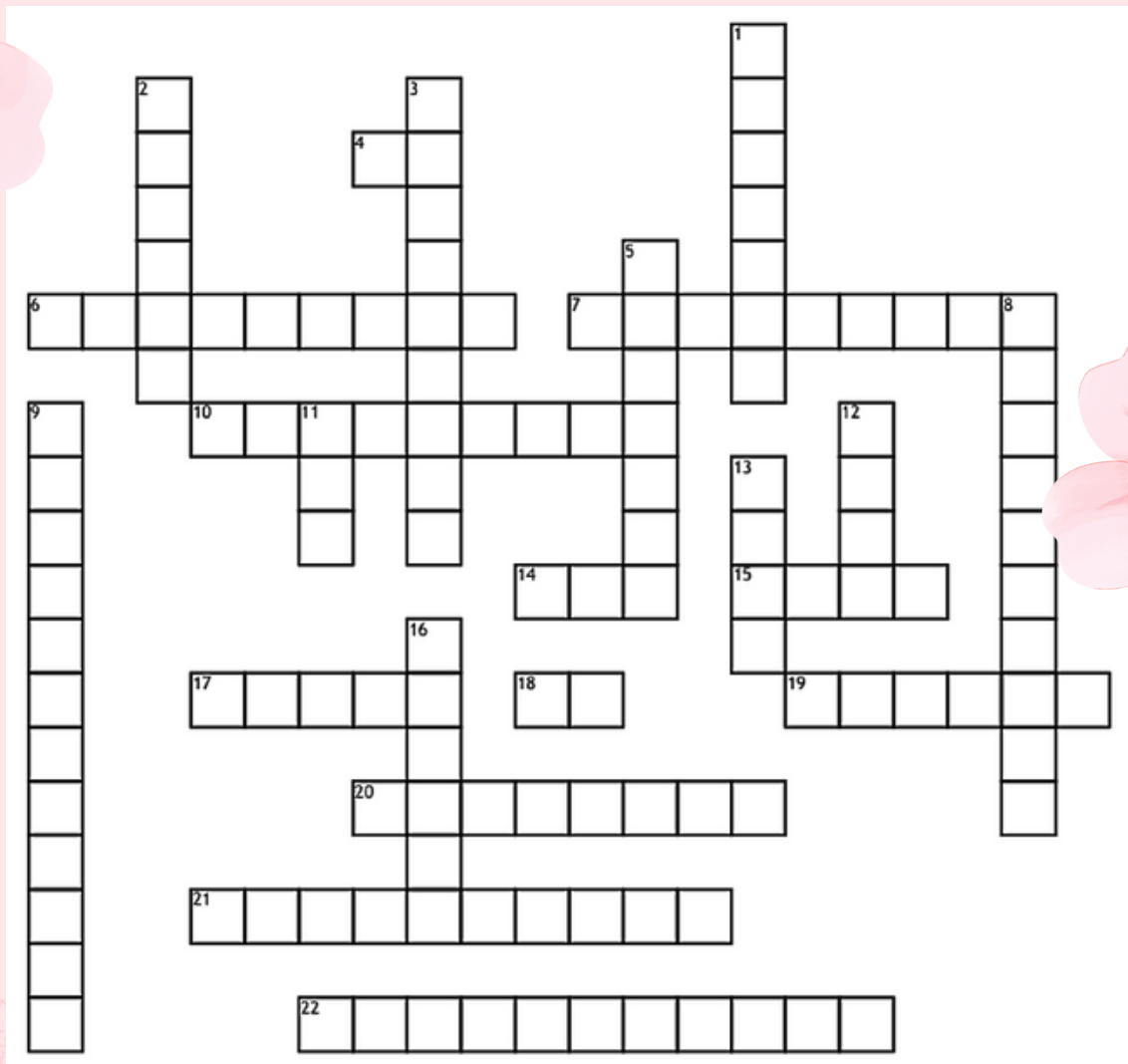




# Crossword Puzzle



Challenge your brain with this  
STEM-themed crossword!



## Across

4. Chemical symbol for gold
6. Study of the physical and fundamental basis of chemical systems and processes
7. Computer Function
10. A first, typical or preliminary model of something
14. First name of woman who created the first algorithm for a machine
15. Science, technology, engineering, and math
17. Type of engineer who designs bridges
18. An irrational number
19. How computers store information
20. Area under a curve
21. Proposed explanation made on the basis of limited evidence as a starting point for further investigation
22. Where photosynthesis occurs

## Down

1. Last name of woman who calculated trajectories for Project Mercury
2. Measuring tool in chemistry/biology
3. Death of a star
5. Branch of mathematics that uses letters or symbols to represent unknown numbers
8. Scientist who won the Nobel Prize for her work in radioactivity
9. Powerhouse of the cell
11. Measure of electrical resistance
12. How to tell a computer what to do
13. National space agency
16. Astronomical body orbiting a star

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# Thank you so much for reading!



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