Welcome to:

NEBRASKA STEM: FOR ONE, FOR ALL











A national initiative

MILLION GIRLS MOONSHOT



THE MILLION GIRLS MOONSHOT MISSION:

The Million Girls Moonshot seeks to re-imagine who can engineer, who can build, who can make. It will inspire and prepare the next generation of innovators by engaging one million more girls in STEM learning opportunities through afterschool and summer programs by 2025.

MGM'S FOUR TRANSFORMATIVE PRACTICES

- 1. Access to STEM Framework
- 2. Engineering Mindset
- 3. Role Models, Mentors, and Families
- 4. STEM Transitions and Pathways



A look at our state:

NEBRASKA WOMEN IN STEM LISTEN THEN ACT

NEBRASKA*
WOMEN IN STEM

Strategy Example #1 OMAHA STEM ECOSYSTEM



OMAHA STEM ECOSYSTEM

Julie Sigmon - Director

Mission: The Omaha STEM Ecosystem is building a stronger STEM Community by connecting education and business development for tomorrow's workforce.







STEM Community Platform

Launched in April 2020, the STEM
Community Platform is an online
clearinghouse of information about
program offerings, career information
and resources. The platform was created
in partnership with AIM Institute through
a sponsorship with COX Business. This
platform has allowed community
partners to come together to ensure
access and equity in education resources
for all community members.



Connects programs and resources to facilitate efficient and effective career pathways to close the talent gap.

O2 resource for sharing and promoting STEM programs and resources.

Communication tool for parents, students, educators, business, non-profits, and industry partners.

Strategy Example #2 LINCOLN STEM ECOSYSTEM





STEM "Coffee Chats"
Government, UNL, Duncan Aviation, Lincoln Electric System, LPS



LNKSE "Reverse Pitch" EventSTEM Nonprofits present to business





2020





Program Highlights

Construct Your EcoSTEM

Neogen-SCC Biotech Teacher Institute



Transfer Ownership to Lincoln Partnership for Economic Development

Donna Gould, IT Director at Monolith Materials

Gabby Johnson, Science Department Co-Chair, and Biology Instructor at SCC

2022 2024



Program Highlights

Neogen-SCC Biotech Teacher Institute

STEM Summer Institute - Spreetail/Talent+

Completion of Phase I: 2019-2022 Strategic Plan



BIO-CARE Project

- 3 years
- Industry partnership with Neogen
- Authentic research experience









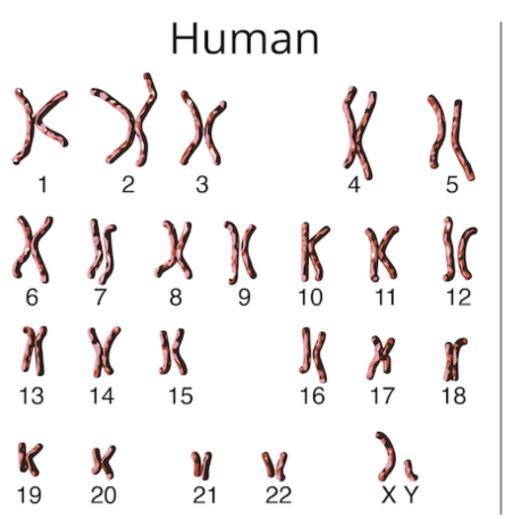
K9 Project Hypothesis

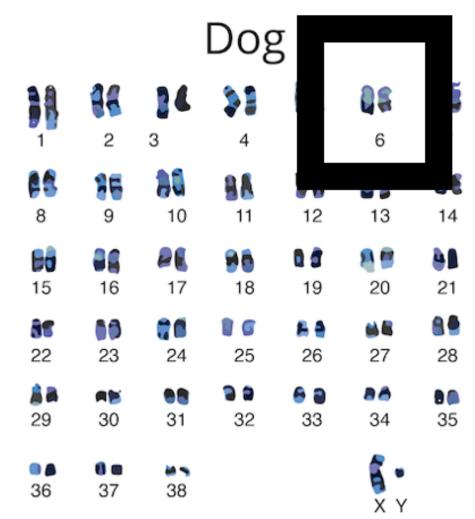
When comparing wolf and dog behavior, dogs display hypersocial behavior and wolves do not

Additional DNA was found in 2 locations on chromosome 6 of dogs that was not present in wolves.

Hypothesis: Extra inserted DNA in 2 gene locations on chromosome 6 is associated with increase in hypersocial behavior in dogs







Lets talk about it! DISCUSSION QUESTIONS

- 1. What does STEM engagement look like in your community (for programs) or what do your STEM outreach efforts look like (for partners)?
- 2. What has been your experience with partnerships between schools/afterschool programs and STEM businesses (successes and challenges)?
- 3. What barriers may exist in your school/community for students interested in pursuing a STEM field?
- 4. What do you wish you would have known about/had access to in grades K-12 related to STEM career field?
- 5. What role should the school day play in STEM education? What role should afterschool/out-of-school time experiences play in STEM education?



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