NCCoE Celebrates CyberWeek with Students and Faculty

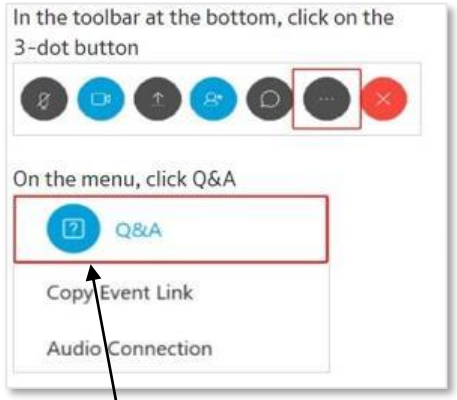
This webinar and the engagement tools are being recorded

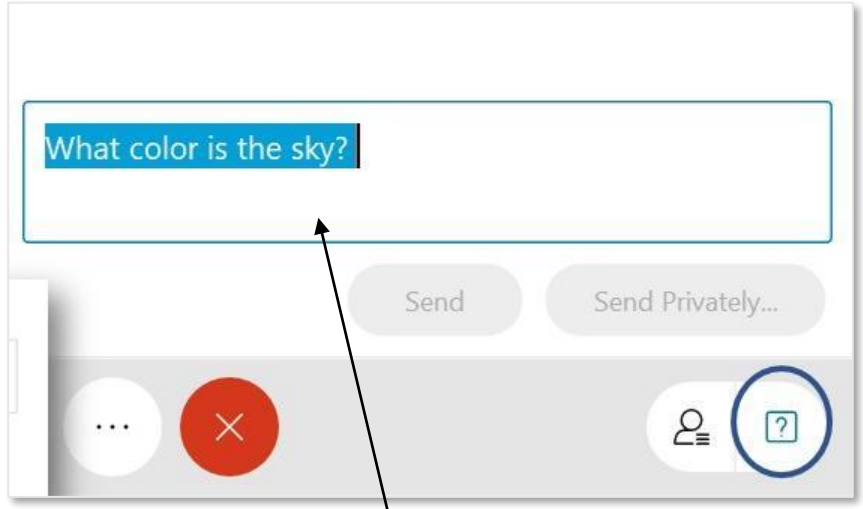
Thursday, October 20, 2022 | 1:00 p.m. ET

Celebrating 50 years of Cybersecurity at NIST

Submitting Questions

Please use the Q&A window to enter your questions.





1. To open the Q&A panel, click on the ellipses at the bottom of the screen for 'More Panels' and click on Q&A.

2. Type your question in the text box and click Send

Agenda

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1:00-1:15 p.m. EDT	**Welcome and Introductory Remarks** Jon Boyens, NIST
1:15-1:30 p.m.	**Introduction to the NCCoE** Natalia Martin, NIST NCCoE
1:30-2:10 p.m.	**Academic Engagement Opportunities at NIST** Kara Robinson, NIST
2:10-2:40 p.m.	**Panel Discussion** Jim McCarthy, Danielle Santos, Gini Khalsa
2:40-2:55 p.m.	**Q&A**
2:55-3:00 p.m.	**Closing Remarks** Natalia Martin, NIST NCCoE

Welcome and Introductory Remarks

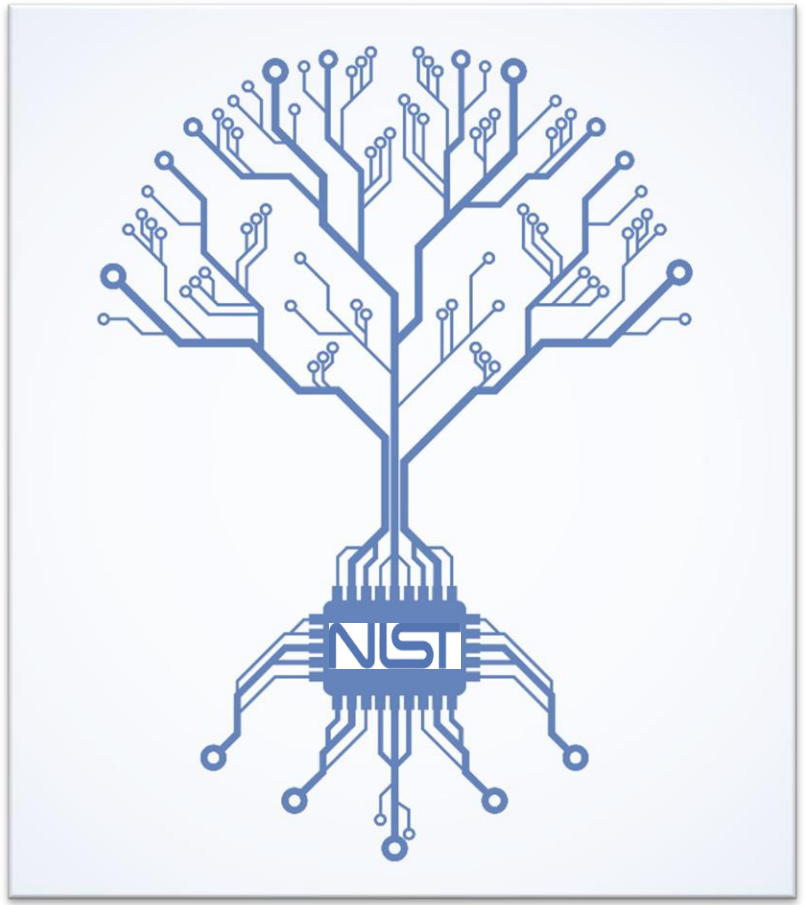
NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

Jon Boyens
Deputy Chief, Computer Security Division, National Institute of Standards and Technology (NIST)

Celebrating our 50th Anniversary

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

We **cultivate trust** by advancing cybersecurity & privacy **standards & guidelines**, **technology**, & **measurement science**.



Celebrating our 50th Anniversary

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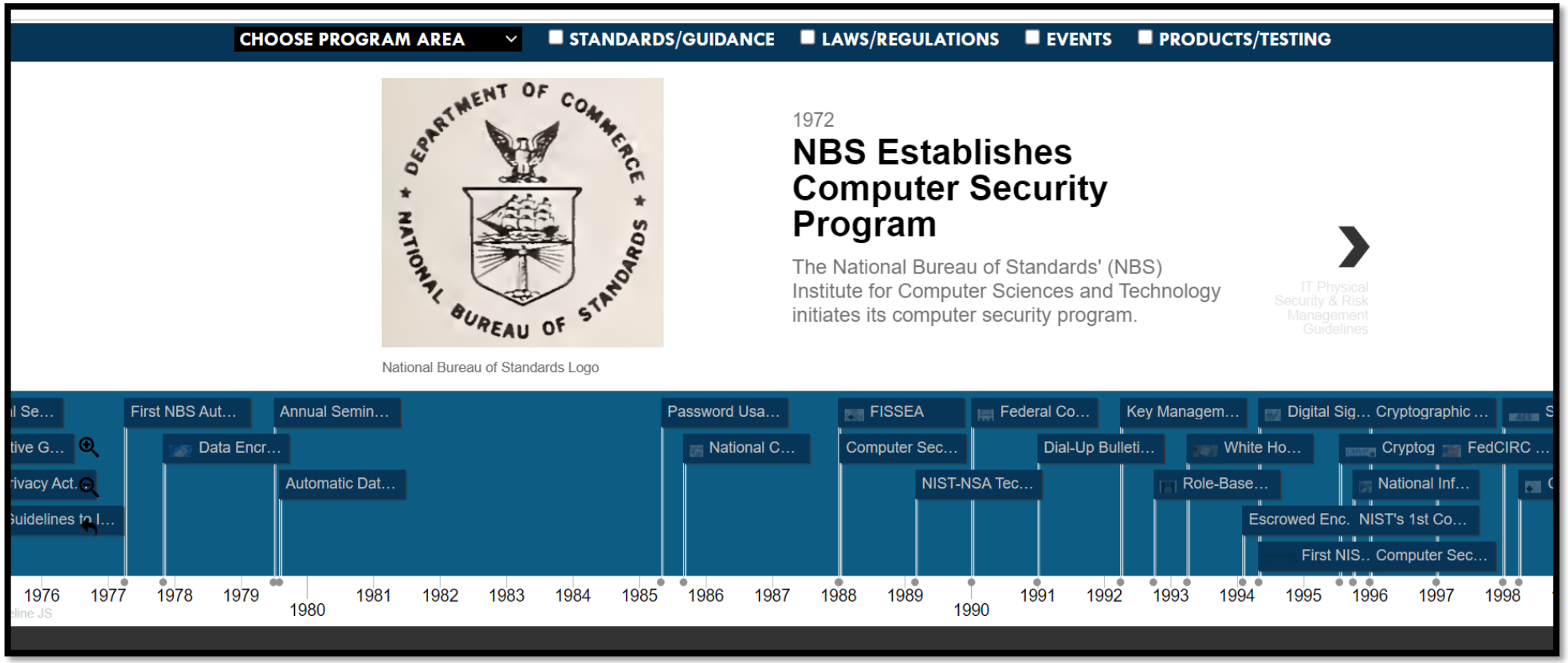
U.S. DEPARTMENT OF COMMERCE

NIST Cybersecurity Program History & Timeline



https://csrc.nist.gov/nist-cyber-history

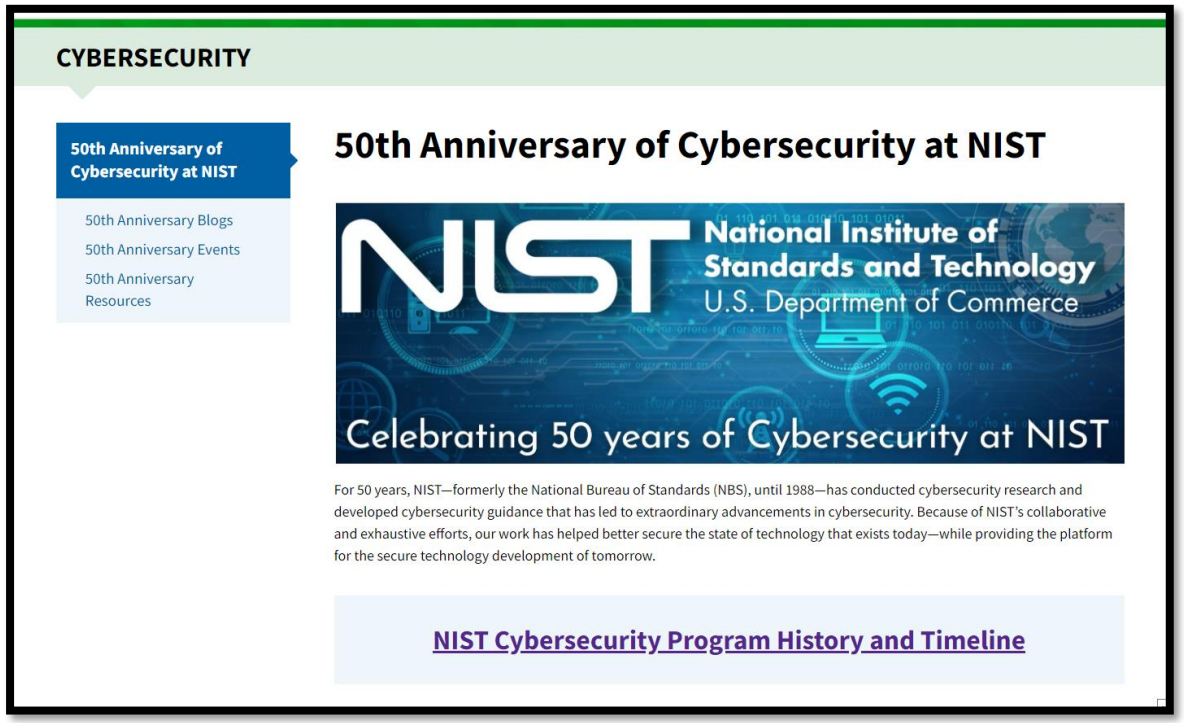
Celebrating 50 years of Cybersecurity at NIST

Celebrating our 50th Anniversary

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

Join the celebration!

- Dedicated anniversary website
  - Info, resources, events, videos
- Special blog series
- @NISTcyber Twitter coverage
  - #NISTcyber50th
- GovDelivery blasts



www.nist.gov/cybersecurity/50th-anniversary-cybersecurity-nist

Celebrating our 50th Anniversary

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Cybersecurity Awareness Month

Get Involved

Key Behaviors

Resources

Events/Theme Days for October 2022

Cybersecurity Awareness Month — celebrated every October — was created in 2004 as a collaborative effort between government and industry to ensure every American has the resources they need to stay safer and more secure online. NIST has partnered with other federal agencies to help raise awareness about cybersecurity and engage with public and private sector partners through events and initiatives to raise awareness about cybersecurity, provide them with tools and resources needed to stay safe online, and increase the resiliency of the Nation in the event of a cyber incident. Let's remember to **#BeCyberSmart**.

This year, the focus is on four key behaviors throughout the month:

1. Enabling multi-factor authentication
2. Using strong passwords and a password manager
3. Updating software
4. Recognizing and reporting phishing |

www.nist.gov/cybersecurity/cybersecurity-awareness-month

Celebrating our 50th Anniversary

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Cybersecurity Career Awareness Week (10/17 – 10/22)

www.nist.gov/itl/applied-cybersecurity/nice/events/cybersecurity-career-awareness-week

Introduction to the NCCoE

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

Natalia Martin

Acting Director
National Cybersecurity Center of Excellence (NCCoE)

NIST NATIONAL CYBERSECURITY CENTER OF EXCELLENCE

Who We Are

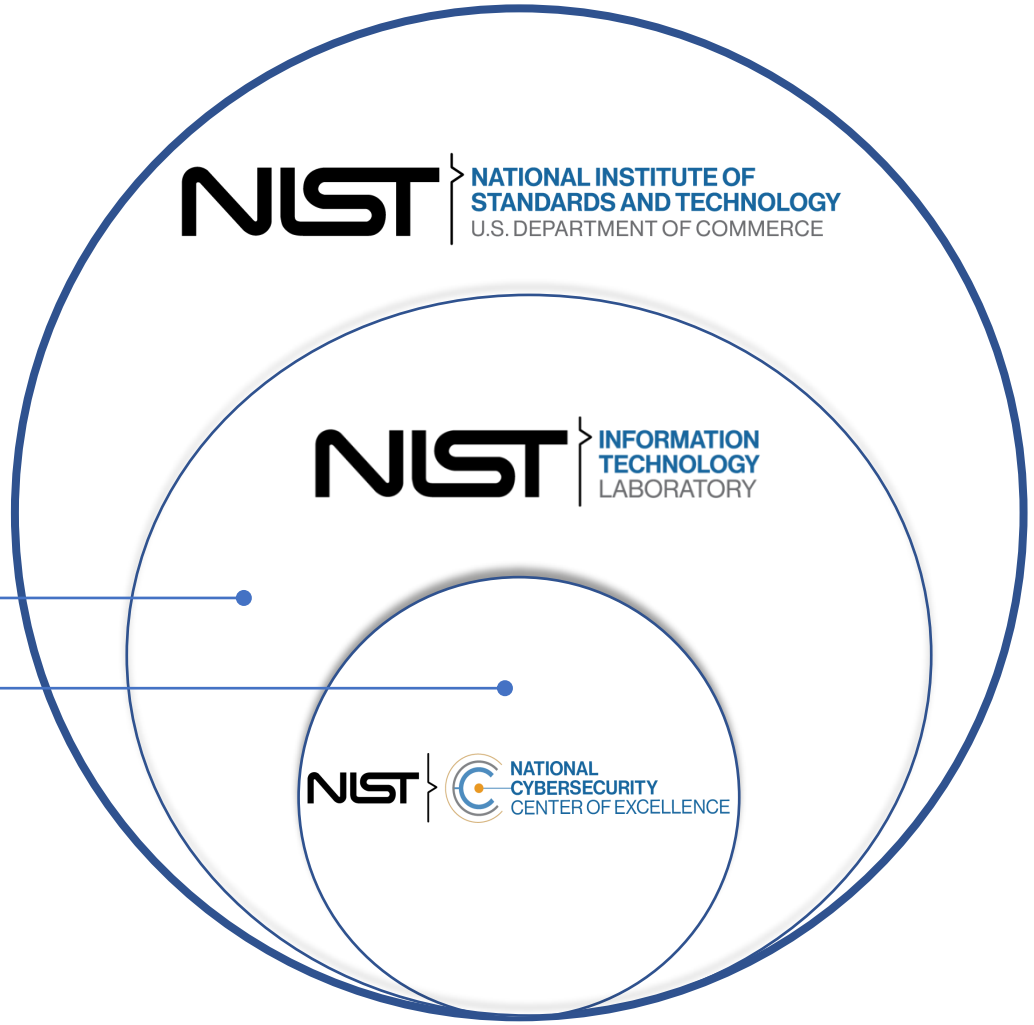
NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

A **solution-driven**, **collaborative** hub addressing complex cybersecurity problems

Who We Are

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

As part of the NIST family, the NCCoE has access to a foundation of **expertise**, **resources**, **relationships**, and **experience**



Information Technology Laboratory

Applied Cybersecurity Division

Who We Are

- Improve cybersecurity for businesses and commerce
- Lower the learning curve for cybersecurity
- Spark innovation in secure technology

NCCoE Academic Engagement

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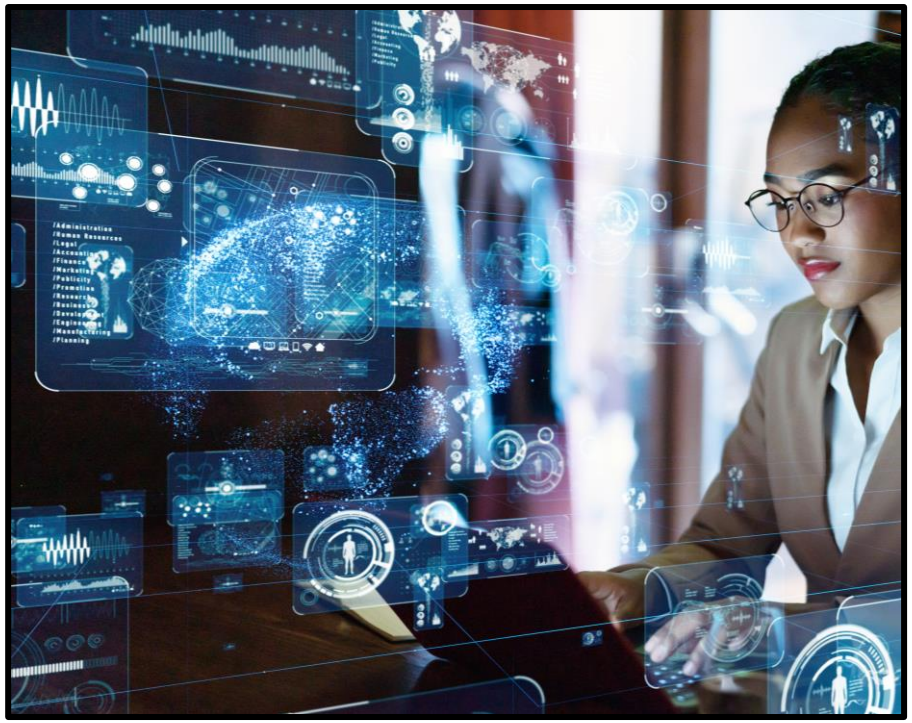
Promoting bi-directional knowledge sharing and **collaboration** opportunities between NCCoE and students, faculty, researchers, and administrators from the nation's K+ education communities.



Email: nccoe-studentlab@nist.gov

Website: www.nccoe.nist.gov/get-involved/collaborate-us-academic-engagement

NIST Academic Engagement

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U.S. DEPARTMENT OF COMMERCE

Kara Robinson

Academic Program Manager,
International and Academic Affairs Office,
NIST

NIST | NATIONAL CYBERSECURITY CENTER OF EXCELLENCE

Celebrating 50 years of Cybersecurity at NIST

INTERNATIONAL AND ACADEMIC AFFAIRS OFFICE
IAAO

Cara O'Malley
SURF

Chantale Denis
SHIP

Kara Robinson
PREP & SI

LaKesha Perry
NRC & GMSE

Lisa Hazel
PREP

Mission in STEM Education

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
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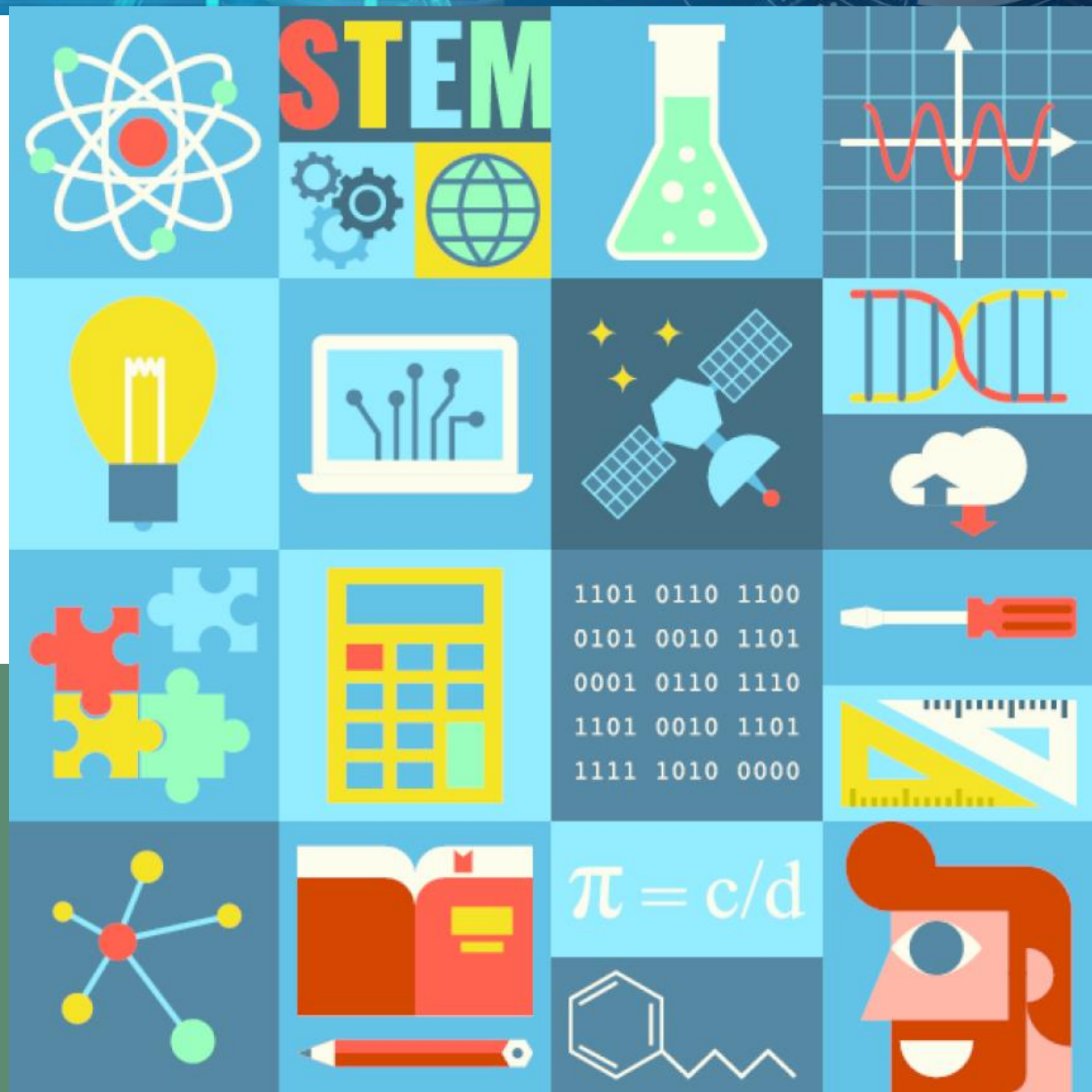
To develop a diverse, world-class pool of scientists and engineers to support NIST's mission in measurement science and standards research, and to support the development of a general population that understands and appreciates measurement science and standards.



The development and support of highly-skilled, talented people is an integral component of U.S. economic strength

NIST

SUMMER HIGH SCHOOL
INTERN PROGRAM
SHIP

Summer High School Internship Program (SHIP)

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- The Summer High School Intern Program (SHIP) is a NIST-wide summer intern program for students who will have finished their junior or senior year of high school by the start of the program and are interested in scientific research only.
- SHIP is an 8-week program
- 40 hours per week during the summer months.
- It's an unpaid volunteer program
- Some past participants have been included as authors of scientific papers.
- SHIP website: https://www.nist.gov/iaao/summer-high-school-intern-program

Eligibility Requirements

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

Interested in scientific research? Spend your summer at NIST!

- Must be a U.S. citizen
- Must be a high school junior or senior.
- Must be in good academic standing
- Minimum GPA of 3.0

Applying to SHIP

- **Students must apply and submit their entire application package on USAJOBS.gov. The announcement is tentatively scheduled to post on USAJobs between December and January.**
- **A completed application package consists of the following**
  - Resume
  - Transcript (Unofficial recommended)
  - Two letters of recommendation
  - Form signed by applicant/student and their parents, indicating availability for a contiguous 8-week period during the summer if a position is offered and you accept.
  - Personal Statement (one page)

NIST
SUMMER UNDERGRADUATE
RESEARCH FELLOWSHP
SURF

Summer Undergraduate Research Fellowship Program (SURF)

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- Founded in 1993 in the Physics Laboratory
- Provides opportunities for undergraduates to engage in hands-on research pertaining to the NIST mission under the guidance of a NIST scientist or engineer
- A partnership supported by NIST and participating colleges/universities for students majoring in science, mathematics, and engineering
- Eleven-week paid fellowships available in all the NIST laboratories @ Gaithersburg and Boulder campuses
  - $6,600 stiped, ~$4,500, ~$600 travel
- To date over 3,000 undergraduates have participated SURF
- The 2022 SURF Virtual Program – 156 participants
- SURF 2023 in person and virtual options
- SURF website: www.nist.gov/SURF

Eligibility Requirements

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- Must be a U.S. citizen or U.S. permanent resident
- Must be an undergraduate (freshman, sophomore, junior, or senior) majoring in biology, biochemistry, chemistry, computer science, engineering, mathematics, materials science, physics, or STEM field
- Must be in good academic standing
- Considering the pursuit of a graduate degree or career in STEM

Applying to SURF

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

- **Students must apply and submit their entire application package on USAJOBS.gov. The announcement is tentatively scheduled to post on USAJobs between December and January**

- **A completed application Package consists of the following**
  - Resume
  - Transcript (Unofficial recommended)
  - Two letters of recommendation
  - Proof of US citizenship or lawful residency
  - Proof of Health Insurance
- SURF website: www.nist.gov/SURF

NIST

GRADUATE STUDENT MEASUREMENT SCIENCE & ENGINEERING FELLOWSHIP PROGRAM (GSME)

Graduate Student Measurement Science and Engineering Fellowship (GMSE) Program

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

- Cooperative agreement with the Graduate Fellowships for Diversity (GFSD) Consortium
- NIST is one of the sponsoring employers in partnership with GFSD
- Awardees receive a $20,000 annual stipend in addition to tuition coverage and summer salary at NIST ($3k per month)
- Over 150 universities participate
- Internship opportunity for graduate students for summer and/or some or all of graduate research at NIST
- Facilitates links between university research groups and NIST
- Application time between August and December
- More information at https://www.nist.gov/iaao/academic-affairs-office/nist-graduate-student-measurement-science-and-engineering-gmse and https://stemfellowships.org/

GMSE graduate student Andre Thompson in one of NIST's Fire Research laboratories, testing the flammability of materials.

Applying for a GMSE Fellowship

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The online application process opens in late August and closes around the first of December each year, with exact dates posted on the GFSD site at https://stemfellowships.org. Applications are submitted directly to GFSD. The application packages are then forwarded to NIST in January, with selected students notified in the February to April timeframe.

Application checklist

- Minimum of three to a maximum of five letters of recommendation
- Personal and goals statement
- Research experience statement
- List of publications, presentations, and poster sessions
- Transcripts
- GRE Scores
- Applicants must be accepted at a participating GFSD-member university or college and progress through a full-time study program leading to a graduate degree in the physical science or related engineering fields

GMSE graduate student Huyen Vu in one of MML's laboratories preparing samples under subdued light for analysis.

GMSE Applicant Pool

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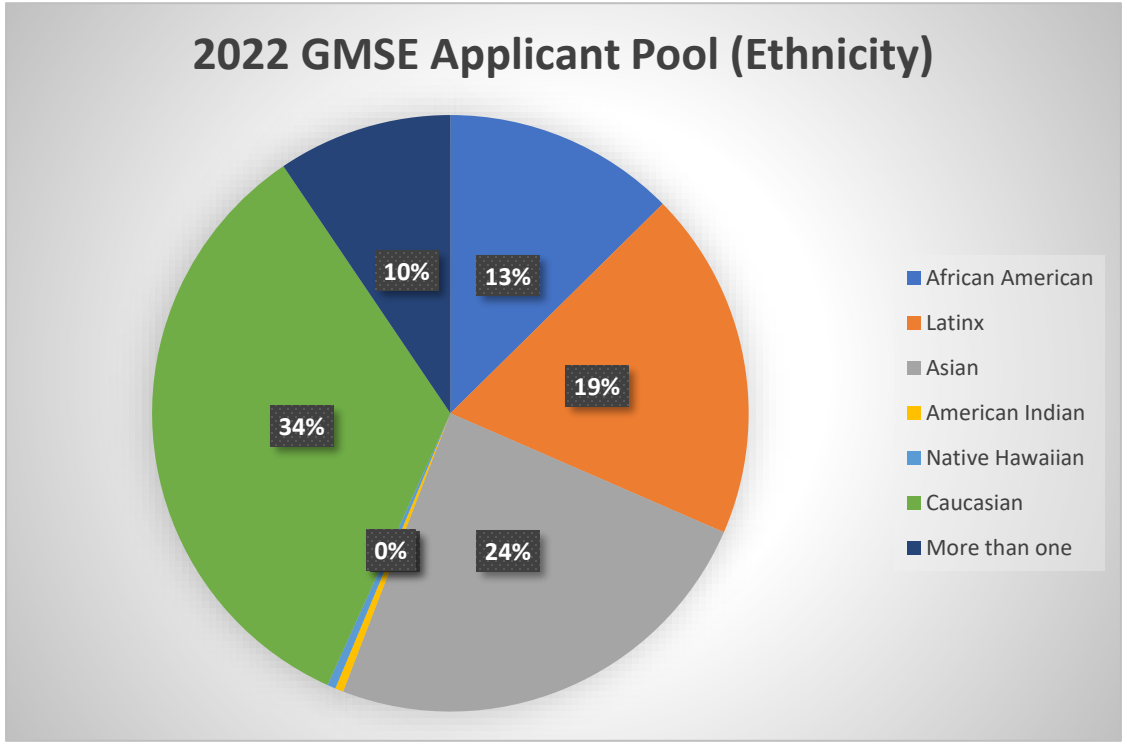

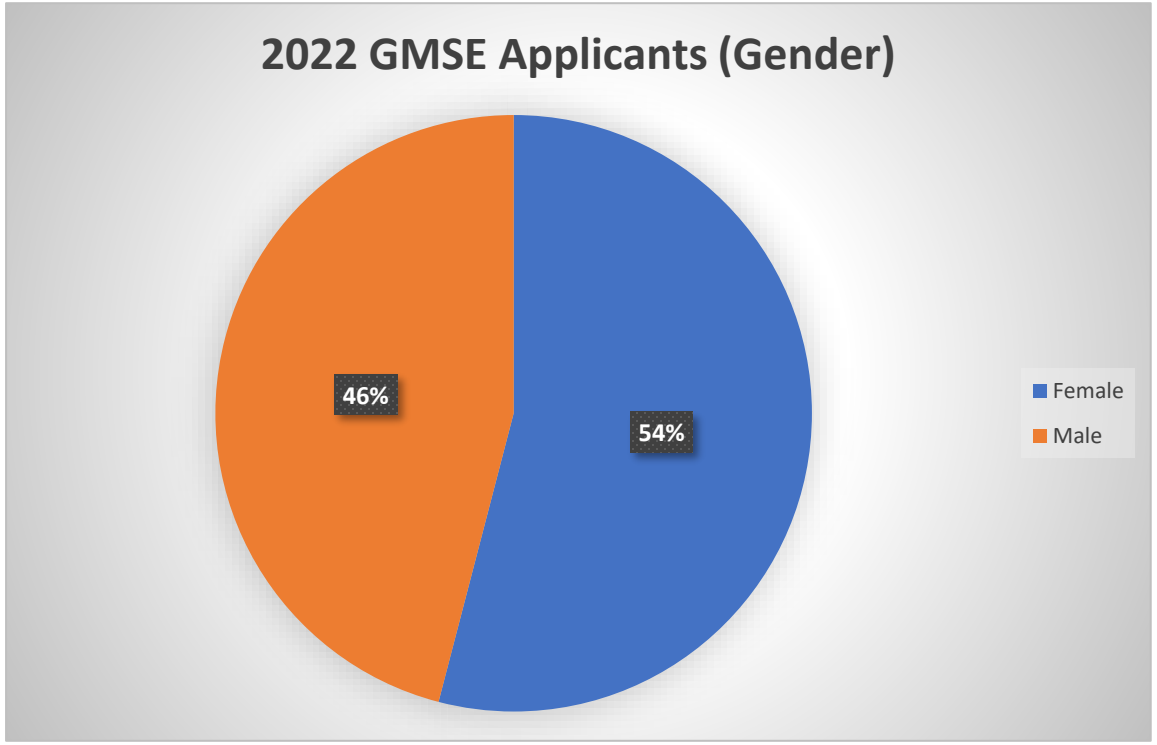

NIST
PROFESSIONAL RESEARCH
EXPERIENCE PROGRAM
PREP

Professional Research Experience Program (PREP)

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- Cooperative agreement to establish a collaborative research relationship between NIST and U.S. institutions of higher education in the following disciplines including (but may not be limited to)
- Open to US citizens and foreign nationals with work authorization
- Opportunities are available to the labs and administrative offices
- PREP website: https://www.nist.gov/iaao/academic-affairs-office/nist-professional-research-experience-program-prep

PREP Universities

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- Brown University
- Georgetown University
- Johns Hopkins University, Morgan State University and SUNY Binghamton Consortium
- Montgomery College
- Towson University
- University of District of Columbia
- University of Maryland College Park

Categories of PREP Researchers

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- Undergraduates
- Post-Bachelor's Degree
- Graduate Students
- Master's Degree Holders
- Postdocs
- Research faculty

PREP Researcher Appointments

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PREP Researchers are requested from the PREP Universities as result of the following:

- NIST advisor meets a researcher at a conference, or through a reference.
- NIST sends a request to a PREP University to advertise and recruit a researcher for an opportunity.
- Propose a research idea to a NIST research scientist.

Postdoctoral Research Associateships Program

NIST Postdoctoral Research Associateships Program

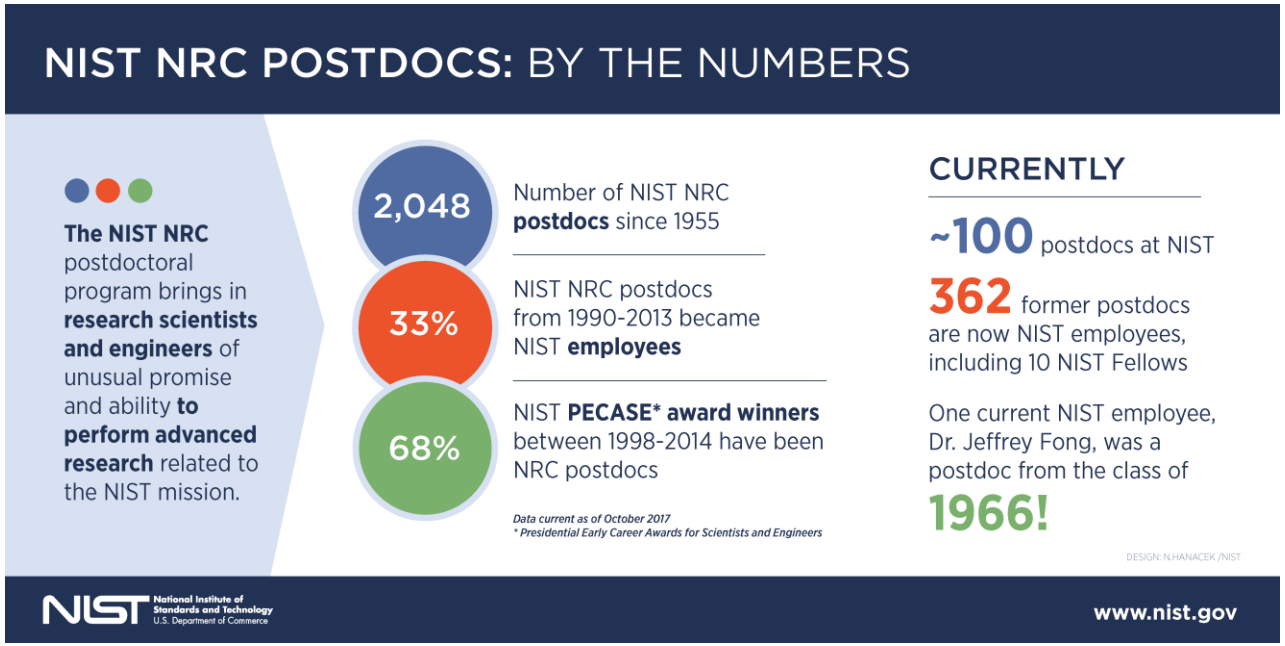
NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY U.S. DEPARTMENT OF COMMERCE

- Provides a maximum of a two-year temporary Federal excepted service appointment for outstanding scientists and engineers

- Awardees are chosen through a national competition administered by the National Research Council of the National Academy of Sciences

- Research opportunities include those in chemistry, physics, materials science, mathematics, computer science, and engineering.

- Competitions held Feb 1 and Aug 1 of each year. Start dates for the positions are June through December and January to June, respectively



NIST Postdoctoral Research Associateships Program

NIST NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
U.S. DEPARTMENT OF COMMERCE

- Congressionally-mandated program with a line item in the NIST budget (approximately $11.4M per year)
- Limit of 120 slots per year, with central funding available for approximately 40 – 45
- Current Annual Salary of $74,950 (FY23), plus $3k travel
- U.S. Citizenship is required, and have held a Ph.D. less than five years at the time of application
- To apply, please see :
  https://www.nist.gov/iaao/academic-affairs-office/nist-nrc-postdoctoral-research-associateships-program
  http://sites.nationalacademies.org/pga/rap/

Applying for a NRC Postdoctoral Research Associateship Award

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U.S. DEPARTMENT OF COMMERCE

What do I need to do before applying?

Prior to applying, identify and contact a prospective Adviser and a Research Opportunity. You must assure that the adviser has a mutual interest in hosting you as a post doc.

How do I apply for an Associate award?

The application is completed online in the NRC WebRap system. Before applying, carefully review the Research Associateships website. Follow the *Getting Started* instructions and proceed to *How to Apply*.

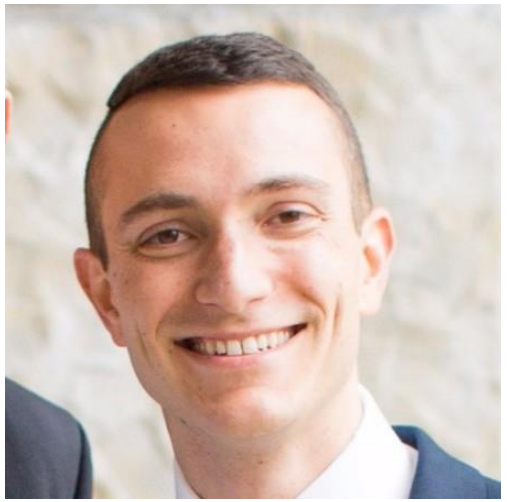
Application requirements:

- Academic Transcripts
- Dissertation Abstract
- Statement of Previous and Current Research
- List of Publications and Presentations
- Research Proposal
- Letters of Recommendation

Recent pipeline success stories

Parastoo Delgoshaei,
EL
Co-op, GMSE, NRC,

Andre Thompson, EL
GMSE, NRC,



Ryan Need, MML
SURF, NRC

Academic Affairs Strategic Outreach

- Trade shows
- Profession Conferences
- Career Fairs
- Webinars
- Email listserves
- Meetings with internal and external stakeholders

Cybersecurity Careers Panel

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U.S. DEPARTMENT OF COMMERCE

Danielle Santos
Manager of Communications and Operations, National Initiative for Cybersecurity Education (NICE)

Jim McCarthy
Senior Security Engineer, National Cybersecurity Center of Excellence

Gini Khalsa
IT Specialist, National Cybersecurity Center of Excellence

Follow us on Twitter: @NISTcyber #NISTcyber50th

Learn More About the NCCoE:
www.nccoe.nist.gov/our-approach/about-center

Learn More About Cybersecurity Career Awareness Week:
www.nist.gov/itl/applied-cybersecurity/nice/events/cybersecurity-career-awareness-week

Submitting Questions

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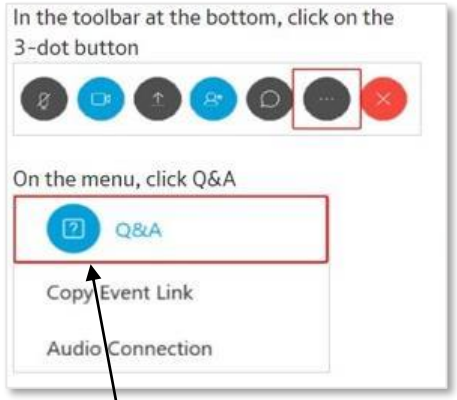

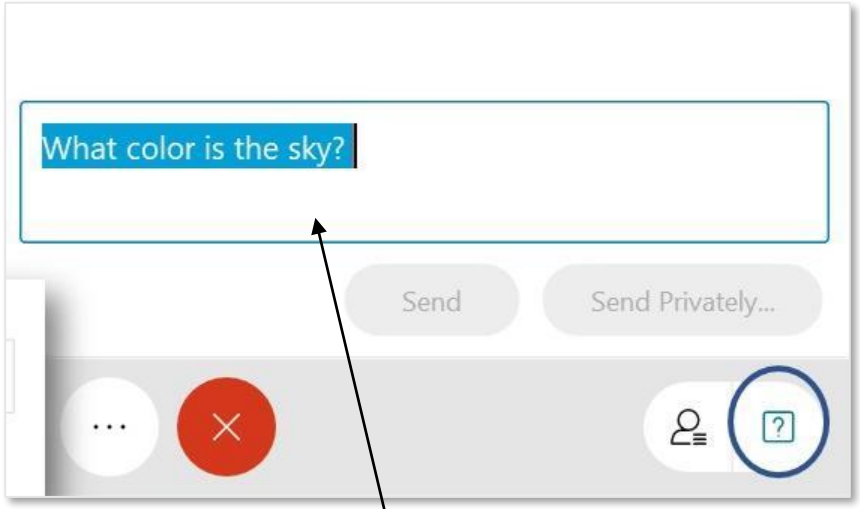

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2. Type your question in the text box and click Send

Closing Remarks

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Natalia Martin

Acting Director
National Cybersecurity Center of Excellence (NCCoE)

NIST NATIONAL CYBERSECURITY CENTER OF EXCELLENCE

NIST Careers

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Careers at NIST:
www.nist.gov/careers

USAJobs.Gov
www.usajobs.gov

Celebrating 50 years of Cybersecurity at NIST

Stay Engaged

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Follow us on Twitter: @NISTcyber
#NISTcyber50th

Learn More About the NCCoE:

www.nccoe.nist.gov/our-approach/about-center

Learn More About Cybersecurity Career Awareness Week:

www.nist.gov/itl/applied-cybersecurity/nice/events/cybersecurity-career-awareness-week

Contact Us: nccoe-studentlab@nist.gov

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