CYBERSECURITY

Cybersecurity involves defending devices and services from electronic attacks by hackers, spammers, and cybercriminals. It is the protection of computer systems, networks, hardware and software, and electronic data.

Why a career in Cybersecurity? Well, according to the U.S. Bureau of Labor Statistics, the potential for growth in this career is quite significant. Check out these statistics:

$103K
median salary

33%
job outlook through 2030

$372B
expected market growth by 2028

To understand the dynamics of this career and deepen your knowledge, skill sets, and professional identity, we encourage you to fully engage with the expedition's resources and activities and take charge of your learning. You will have the opportunity to:

REFLECT on an industry expert's video and your future aspirations. Be sure to reflect throughout the expedition.

STRETCH your knowledge and skills.

INNOVATE by collecting and analyzing data, completing a passion project, and solving a real-world problem.

SHOWCASE your findings to an audience in an engaging way by using appealing technology applications.

Meet Tony Gibson from Verizon, a Senior Manager of Security Operations and Compliance, who:

- *has over 20 years of experience in multiple areas of I.T.,*
- *proudly served in the U.S. Army;*
- *works directly with system architects, developers, support staff, and management teams to drive security strategy; and*
- *is a conduit between Verizon's Chief Security Office and Application Development and Operations.*

FUTURE READY LEARNING

CYBERSECURITY

TONY GIBSON

Security Strategy & Operations Verizon

Press PLAY ▶

As you reflect on Tony's video, think deeply about these questions:

- What excites you about cybersecurity?
- What skills or traits would help you succeed in a cybersecurity career?
- What parts of Tony's work can you see yourself doing?
- What else would you like to learn about cybersecurity?
- How do you plan to stretch your learning about cybersecurity?

STRETCH ⛶

INNOVATE

Dive into these resources to expand your learning and skills:

- Watch [a cyberattack unfold](#).

- Learn about [Cyber Security in 7 minutes](#).

- Check out [Cyber.org's Cyber Safety Video series](#).

- Participate in [cybersecurity challenges](#).

- Channel your inner [Cyber Sleuth](#) and see if you can identify which direct messages (DM) you can trust.

- Combine fun with learning with [Chack](#) (hacker chess).

- Explore what [ethical hacking](#) means.

- Join [Hack the Box](#), a dynamic hacking community, and take your cybersecurity skills to the next level!

- Attend the [Air Force Association's Cyber Camp](#).

- Investigate college and career data on Cybersecurity:
  - [Cybersecurity Competency Model](#)
  - [Cybersecurity Pathways Tool](#) (an interactive way to explore roles in cybersecurity)
  - [Cyber career profiles](#) by [cyber.org](#)
  - The 10 HBCUs with the [best computer science programs](#)
  - U.S. News' best [cybersecurity undergraduate programs](#)

We encourage you to continue researching this topic and collect a list of resources that feeds your curiosity, learning, and passion for Cybersecurity.

It's time to think about what you would like to investigate and create:

- Use the choice boards (on the next 2 pages) to select a project idea and presentation method to showcase your data, findings, and learning.

- Reflect on what excites you about cybersecurity or what fuels your interest? Then, as you ideate and innovate, implement [the Cybersecurity Framework](#) created by NIST:

Adapted from: [the NIST Cybersecurity Framework](#)

INNOVATE

Use the Innovate Choice Board to select a project that you are passionate about or one that relates to a real-world problem you want to investigate and solve:

Choice 1: Develop a campaign (social, digital, or non-digital) or lunch event at your school that is focused on cybersecurity basics. Using the resources in this Expedition, create materials or media to help your school implement cyber safety. (You may even consider inviting a guest speaker.)

Choice 2: Design a personal cybersecurity plan and safety goals after conducting research and reviewing this Cyber-Security Planning Guide.

Choice 3: Register for CyberStart America, an immersive cybersecurity training game where you can advance your skills and win scholarships.

Document your learning journey as you participate in the challenges. Share what you learned and where you improved or further developed your talent.

Collect a list of activities you found to be the most challenging then identify goals to continue to stretch your learning.

CYBERSECURITY INNOVATE CHOICE BOARD

Choice 5: Choose your own cybersecurity project. Discuss it with your educator then GO FOR IT!

Choice 4: After researching the basics of cybersecurity, collect information on the number of ways that an intruder can illegally access devices that are not connected to the Internet. How can you minimize such risk?

How would you advise your family and friends to protect themselves?

Create a tutorial in a format of your choosing to share with your class, family, and friends.

SHOWCASE

Use the Showcase Choice Board to select a presentation style to share your innovative project to a local, national, or global audience:

Choice 1: Create a YouTube video to detail your learning through the project challenge.

Choice 2: Create a blog to highlight your findings and learning journey.

Choice 3: Create a digital portfolio to showcase your data and findings using Google Sites or Bulb to showcase your project and learning journey.

Meet Window Snyder, a computer security expert, author, and the founder and CEO of Thistle Technologies. Follow her on Twitter!

Choice 5: Share your findings with an audience - your class, a mentor, or connect with the academy's Advisory Board. Pretend you were asked to talk about cybersecurity for a news show. Allow for a Q&A, then solicit feedback on the quality of your visuals and how you shared your findings.

Choice 4: Code or create a simple webpage to showcase your findings and learning. Consider Replit or Wix.

If you would like to share your project with NAF, please submit it HERE. You must have your educator's permission before sharing. (NAF will not share your work without your educator's and your approval).

Choice 6: Showcase your project in a format of your choosing.

NAF