SCHOOL SAFETY SUMMIT

JUNE 15, 2023

RAISING CANE'S RIVER CENTER | BATON ROUGE, LA

Examining School Safety Through the Lens of Cybersecurity: A Different Approach

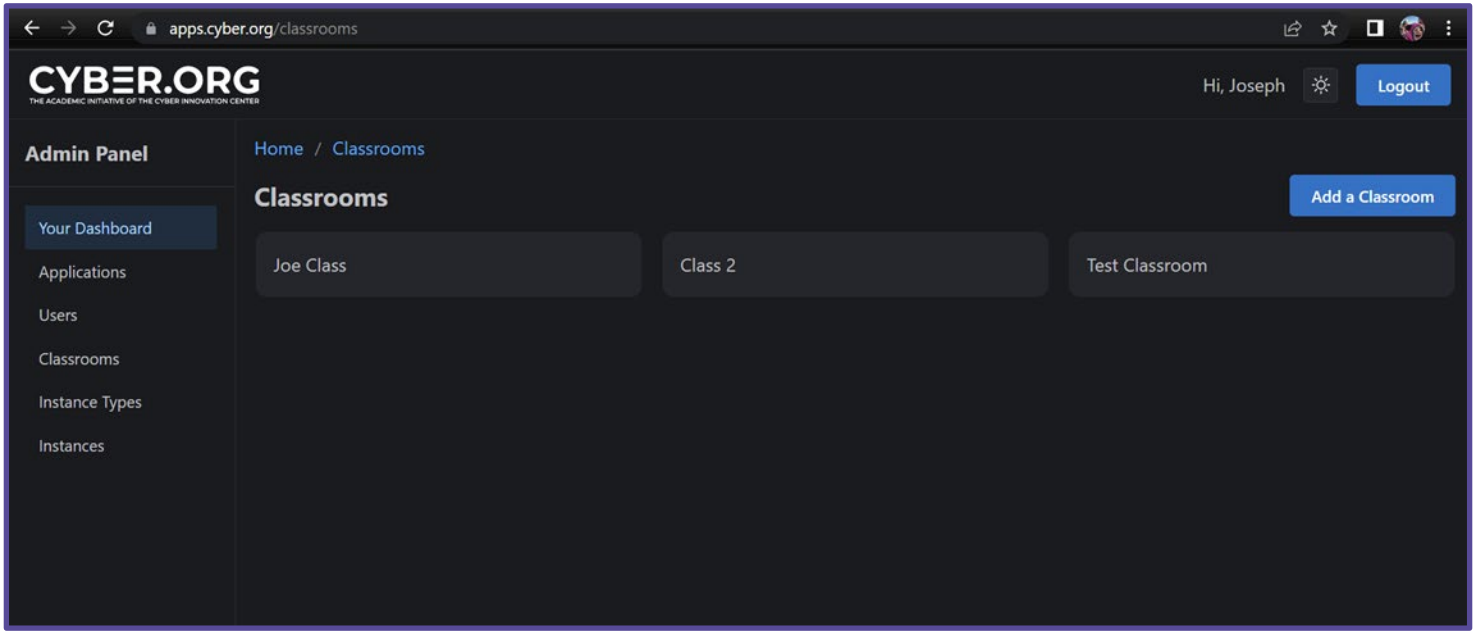
Objectives

1. Attendees will become familiar with CYBER.ORG's grant funded (CTE) curricula and Cyber Range.
2. Attendees will understand what the Cyber Range is and its purpose.
3. Attendees will learn how a Cyber Range creates real-world experiences for students in the classroom.
4. Attendees will understand the connection between Cybersecurity and School Safety.

Agenda

- LET'S GO!!!! Credential Harvesting Lab
- Cybersecurity and School Safety
- Who are we?
- What do we offer?
- Explore the Cybersecurity Course
- What is the CYBER.ORG Cyber Range?
- Closure

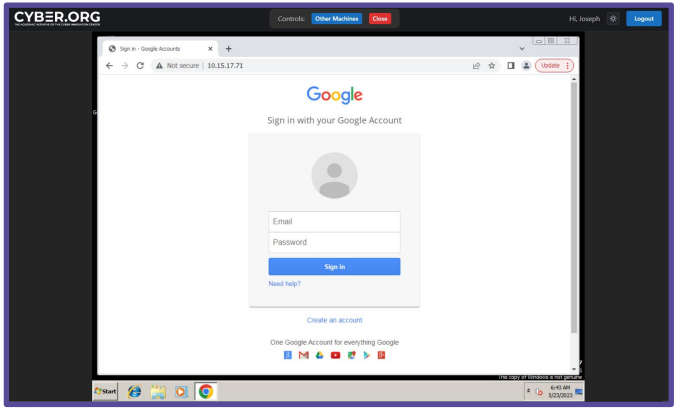
CYBER.ORG Cyber Range
Credential Harvesting Lab



Believes

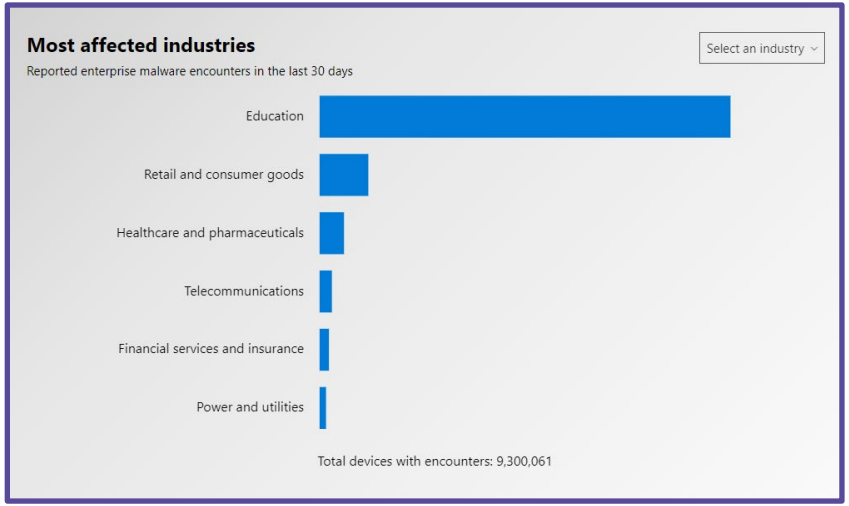
What is Credential Harvesting?

- A malicious actor attempting to obtain log-in credentials from victims
  - Create a fake website
    - Clone of a real website
  - Get the victim to visit the website
  - Victim enters their username/password
    - Does not actually authenticate
  - Malicious actor sees their username/password



Partnering to Safeguard K-12 Organizations from Cybersecurity Threats Cybersecurity and Infrastructure Security Agency (CISA) - January 2023

There is no more important institution to the future prosperity and strength of the United States than our nation's K–12 education system. K–12 schools and school districts have adopted advanced networking technologies that facilitate learning and make schools more efficient and effective. This technological gain, however, has introduced heightened risks. Malicious cyber actors are targeting K–12 education organizations across the country, with potentially catastrophic impacts on students, their families, teachers, and administrators.



From: Microsoft (May 2023)

Cybersecurity and School Safety…

- There has been a 300% increase in cybercrimes since the beginning of COVID-19, according to the U.S. FBI.
- 62% of nearly 5.8 million malware cases reported came from the education sector (Microsoft Security Intelligence, 2023).
- The number of K-12 students taking online courses is now approximately 4.5 million, a radical number given that online enrollment in 2000 was fewer than 50,000 students (OnlineSchools.org, 2023).

Cybersecurity and School Safety…

- As well as the threats all users face when going online, such as computer viruses and email scams, students are at risk from the following:

  Cyberbullying

  Inappropriate Content

  Sexting

  Sextortion/Ransomware

  Oversharing

  Online Predation

- Cyberthreats, viruses, and malware - Microsoft Security Intelligence

Who is CYBER.ORG?

- Who is CYBER.ORG?
  - Funded by CISA (CETAP)
  - Help close the workforce shortage
    - National security problem
- Who am I?
  - Willie Henderson, M.Ed.
    Cyber Education Specialist
    Louisiana CYBER.ORG Range Specialist

CYBER.ORG
THE ACADEMIC INITIATIVE OF THE CYBER INNOVATION CENTER

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The nation has a critical cybersecurity workforce shortage.

Efforts to close the cyber workforce gap MUST begin in K-12 classroms.

Our Impact

as of March 2022

- **25,000+** teachers enrolled in CYBER.ORG content *from 50 states and 4 US territories*
- **3.4 million** students currently impacted by CYBER.ORG content
- **19,000+** teachers trained to teach cybersecurity both through in-person and virtual professional development

Our Approach

Supporting K-12 educators and students to build foundational cybersecurity awareness, cyber career awareness, and technical cybersecurity skills.

- Cultivate State Partnerships
- Develop Classroom Resources
- Lead Professional Development
- Support Student & Community Events

Our Goal:
Cyber Education for All Students

By ensuring that all students receive a cybersecurity education, we build a steady stream of cyber-literate students who are prepared for the workforce after school.

Louisiana Believes

Visit CYBER.ORG to learn more!

CYBERSECURITY & INFRASTRUCTURE SECURITY AGENCY CISA

CYBER.ORG

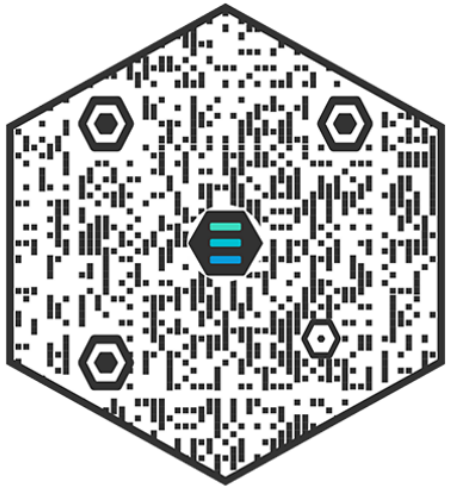
THE ACADEMIC INITIATIVE OF THE CYBER INNOVATION CENTER

NO-COST CYBERSECURITY CLASSROOM RESOURCES

CLASSROOM CONTENT

PROFESSIONAL DEVELOPMENT

CAREER AWARENESS



Cybersecurity Courses

Cybersecurity

Cybersecurity Basics

Introductory Technology Courses

IT Fundamentals

Cyber Literacy

Coding Fundamentals

Robotics in the Classroom

Integrated Cybersecurity Courses

Cyber Society

Computational Thinking

Science +

STEM EDA

Believes

What is the Cybersecurity Course?

- Lays a foundation of understanding all the essential knowledge and skills needed to begin a future in the cyber workforce.
- Part of LDOE's Cyber Security Jump Start Pathway
- Prepares students for Industry Based Certifications:
  CompTIA Security+

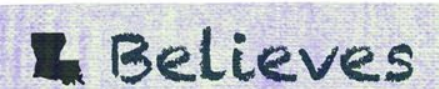
Security+ Objectives

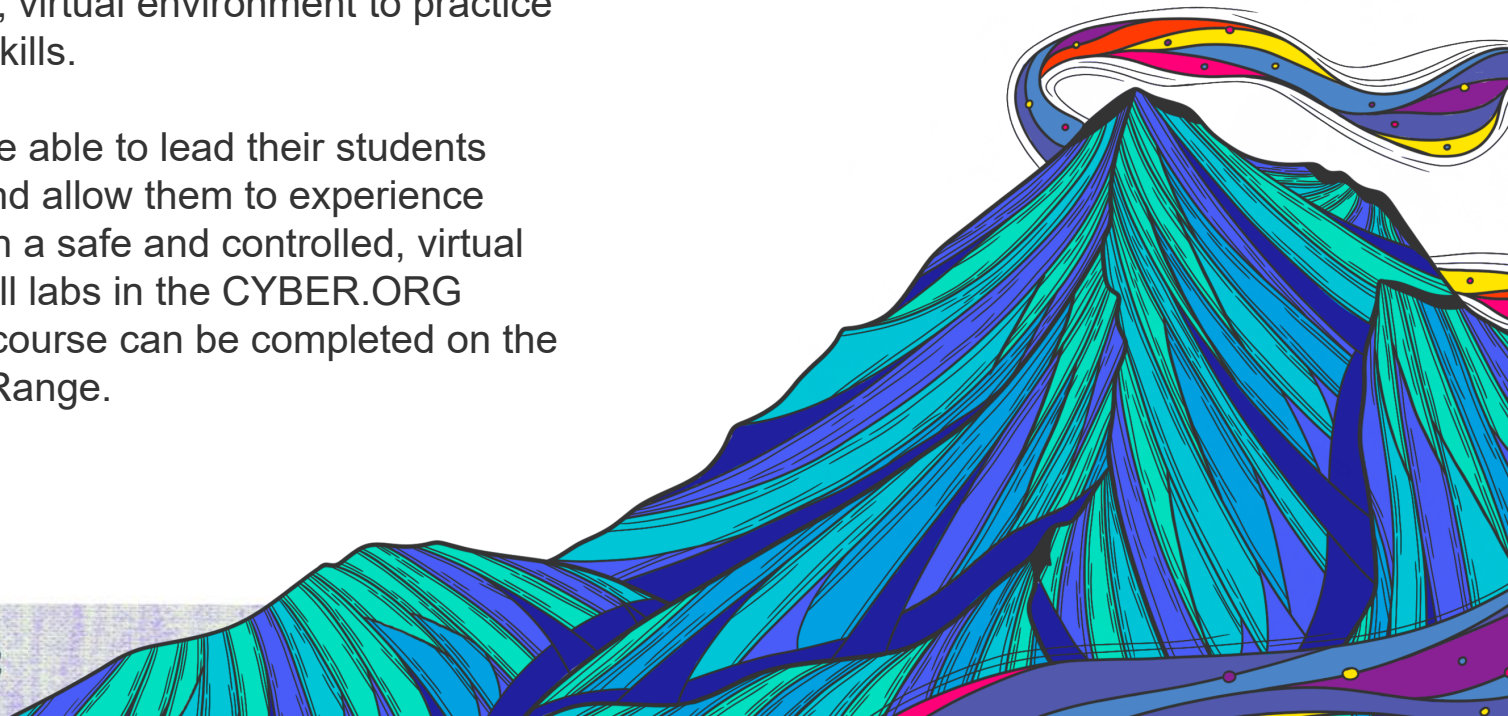
- Aligned to CompTIA's SY0-601 Objectives
  - Exam will be updated in 2025
- Covers threats, attacks, vulnerabilities, risk management, cryptography, PKI, access management, etc.
- Experience is recommended
  - **Two years of experience in IT administration with a security focus**
- $392 per exam (Vouchers available: District CTE Funds)
- Certificate is good for 3 years
- Pros and Cons: Looks amazing on a resume and less content than A+; difficult for some students

CYBER.ORG
RANGE

A no-cost, safe, virtual environment to practice cybersecurity skills.

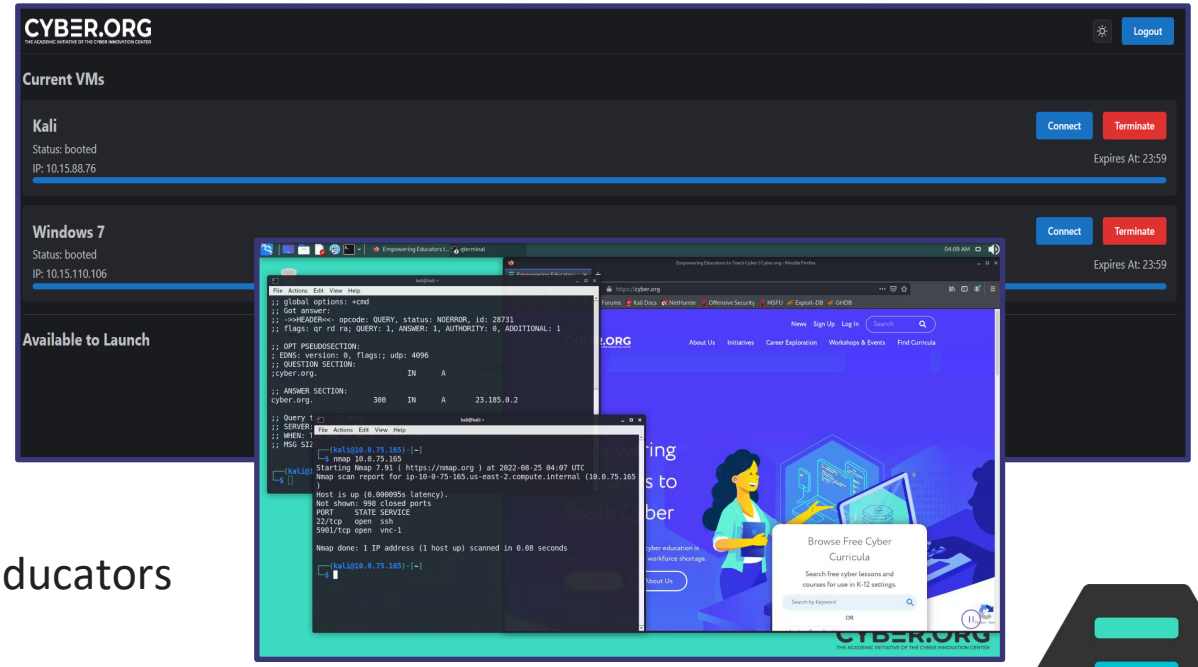
Teachers will be able to lead their students through labs and allow them to experience cyber-attacks in a safe and controlled, virtual environment. All labs in the CYBER.ORG Cybersecurity course can be completed on the CYBER.ORG Range.





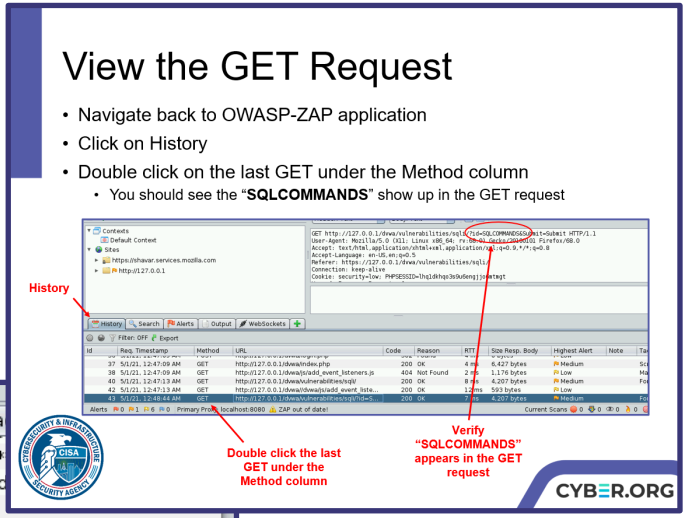
The CYBER.ORG Range

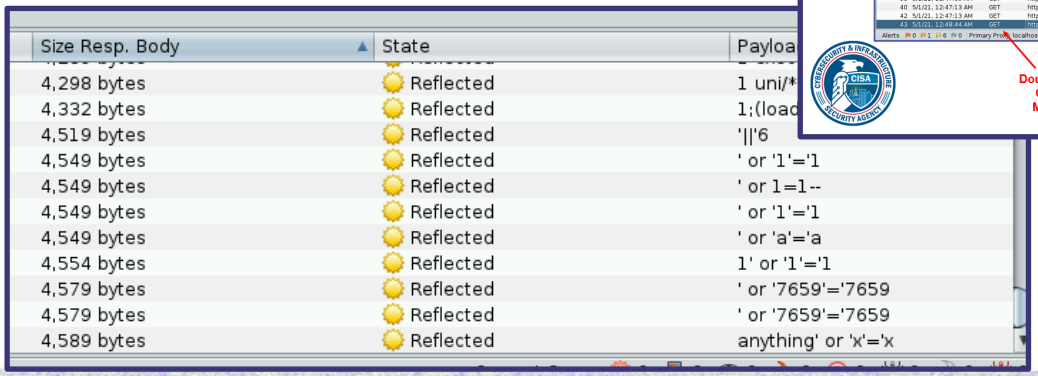
- Cloud hosted
- Browser based
- No software to install
- Scalable
- Engaging
- Interactive
- **No-Cost** to all US K-12 Educators



Using the Range for Experience

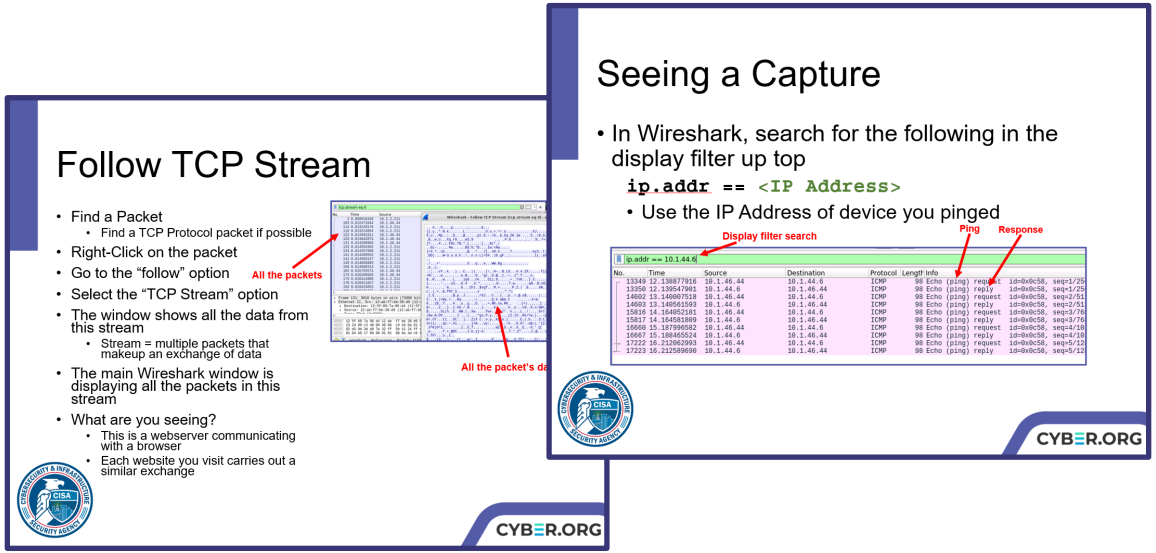
- “Example” Labs - Fuzzing Lab
  - Learn what fuzzing is
  - Learn how to use fuzzing
    - Also use OWASP-ZAP
    - And SQL Injection





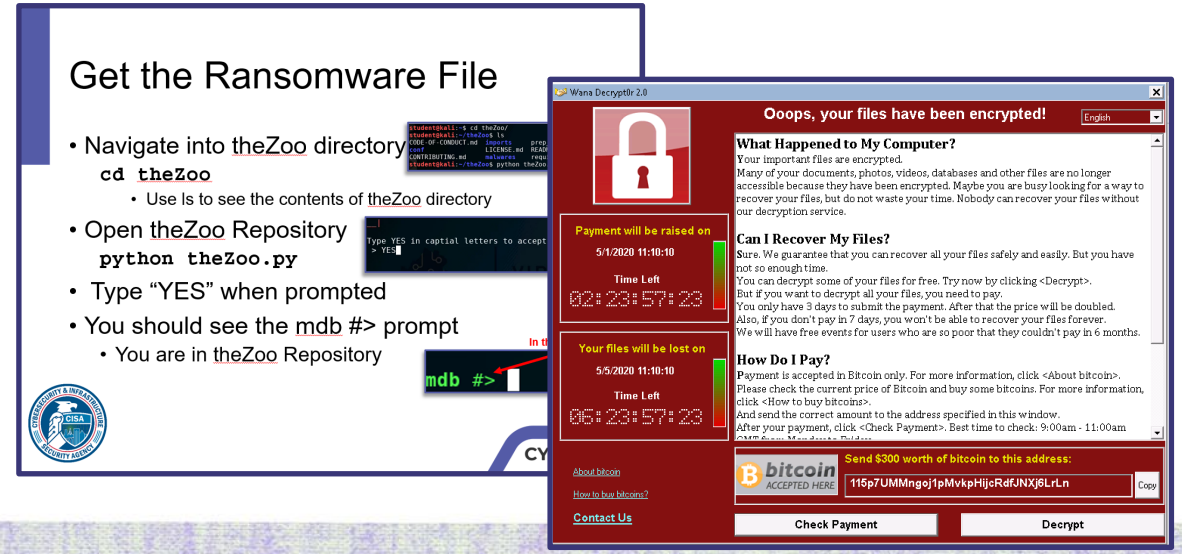
Using the Range for Experience

- “Tool” Labs - Wireshark Lab
  - Learn how to capture packets, view packets, and understand packets
  - Understand the risks of using the internet “in a café”



Using the Range for Experience

- “Attack” Labs - Ransomware Lab
  - Use the actual WannaCry payload
  - Understand how a ransomware attack works
  - Understand how to defend against a ransomware attack



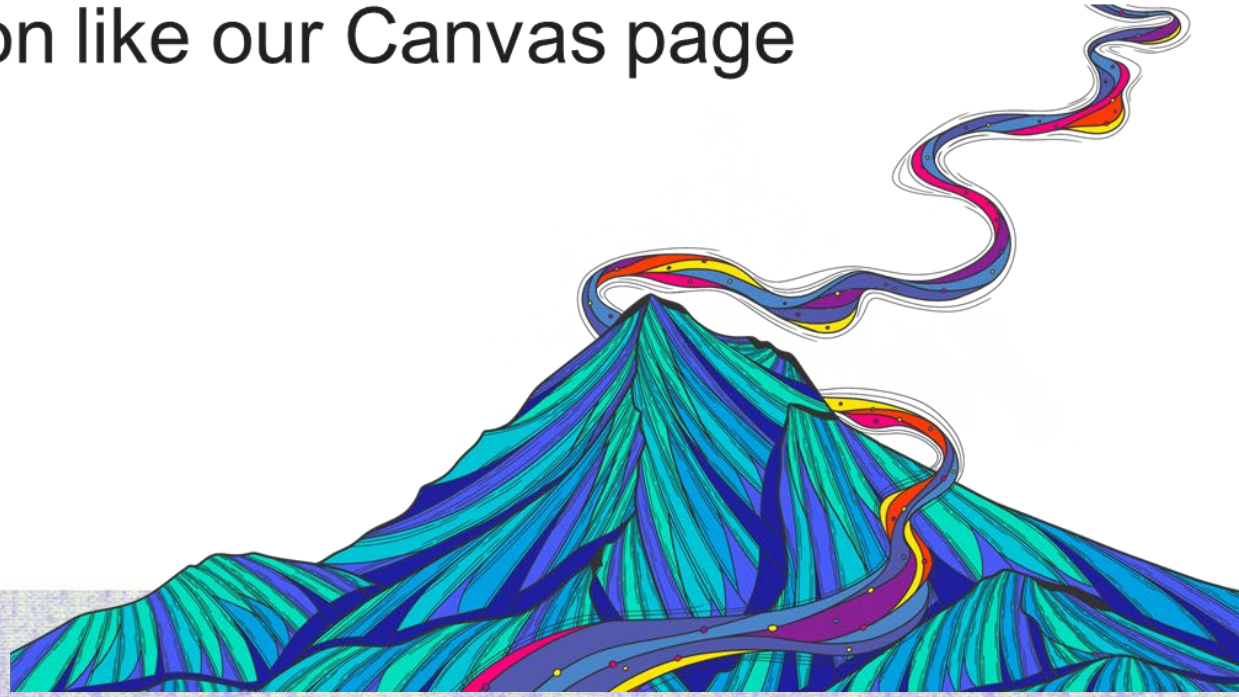
Sign-up for our curricula

[Curricula Sign Up | Cyber.org]

Click the sign-up button in the top right corner

Sign up for the CYBER.ORG Range

- https://apps.cyber.org/login
- Human verification like our Canvas page



Believes

Contact Me

- **Willie Henderson**
- Cyber Education Specialist
- LA CYBER.ORG Range Specialist
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Thank you for attending,
“Create a GREAT day!”