CATEROFICATIONS OF A STATE OF A S



9-12	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Week 1 BE PRIVATE	10 Immutable Rules 45 mins	Social Media Privacy 45 mins	Ad-Blocking and Online Privacy 45 mins	Navigating Privacy Policies 35 mins	Cybersecurity and Protecting Personal Information 35 mins
Week 2 BE SECURE	Password Security Best Practices 45 mins	Understanding Virtual Private Networks (VPNs) 45 mins	Secure Your Personal Network 40 mins	Secure Your Personal Devices 35 mins	CyberStart Canada Challenge! 45 mins
Week 3 BE SKEPTICAL	Tackling Misinformation Online 45 mins	Recognizing Scams 35 mins	Understanding Media Bias 45 mins	The Business of Social Media 45 mins	Escaping Filter Bubbles 45 mins
Week 4 BE POSITIVE	Navigating Online Life in Post-Secondary 45 mins	Exploring Cybersecurity as a Career Path 45 mins	The Importance of Cybersecurity Preparedness 40 mins	Pink Shirt Day - Anti-Online Bullying Awareness 40 mins	Exploring STEM Fellowship and PicoCTF 45 mins

GIEDIROFIGILIS INDIESSONEINS



9-12	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Week 1 BE PRIVATE	10 Immutable Rules 45 mins	Social Media Privacy 45 mins	Ad-Blocking and Online Privacy 45 mins	Navigating Privacy Policies 35 mins	Cybersecurity and Protecting Personal Information 35 mins
Week 2 BE SECURE	Password Security Best Practices 45 mins	Understanding Virtual Private Networks (VPNs) 45 mins	Secure Your Personal Network 40 mins	Secure Your Personal Devices 35 mins	CyberStart Canada Challenge! 45 mins
Week 3 BE SKEPTICAL	Tackling Misinformation Online 45 mins	Recognizing Scams 35 mins	Understanding Media Bias 45 mins	The Business of Social Media 45 mins	Escaping Filter Bubbles 45 mins
Week 4 BE POSITIVE	Navigating Online Life in Post-Secondary 45 mins	Exploring Cybersecurity as a Career Path 45 mins	The Importance of Cybersecurity Preparedness 40 mins	Pink Shirt Day - Anti-Online Bullying Awareness 40 mins	Exploring STEM Fellowship and PicoCTF 45 mins

9-12	Day 1 - The 10 Immutable Rules of Cybersafety					
	Objective: This keynote will provide students with a general overview of all things cybersafety and set					
	a strong foundation for following lesson plans.					
	Before the lesson: Provide students with a link to the CyberDay Tipsheets OR print and provide					
	students with a physical copy of the handout if you prefer.					
	, , , , , , , , , , , , , , , , , , ,					
	Presentation: Video 30 mins					
	The 10 Immutable Rules of Cybersafety					
	Diameter 40.45 rains					
	<u>Discuss</u> : 10-15 mins ■ What do we mean by "Immutable" rules?					
	 What do we mean by inimitable rules? Discuss and define what immutable means and why these rules might be considered 					
	immutable.					
	 Which rule(s) did you expect to see on this list? Which one(s) surprised you? 					
	Review all 10 rules and reflect on which rules students already practice in their daily					
	life, which rules they will implement now, and which rules surprised them. • After watching this video, why do you think cybersafety is important?					
	Ask student to describe in their own words, why cybersafety is important to					
	understand and actively practice.					
	 What is Personal Identifiable Information (PII) and why should we care about protecting it? 					
Week 1	Explore common PII like full names, date of birth, email addresses, etc. Understand why this information is consitive and best prostings to protect it online.					
Be Private	why this information is sensitive and best practices to protect it online.					
	Reflect: 5 mins					
	Find a free application you frequently use on your phone. Look at the app permissions, look					
	up their privacy policy, and read carefully.					
	 Encourage students to critically analyze app permissions and read the privacy policy thoroughly. Ask them to take notes on any unexpected or concerning information. 					
	Share your findings with the class in the next session.					
	 Students will have the opportunity to discuss their discoveries, promoting peer 					
	learning and further reflection.					
	Sand have Ask your parent/guardian about how online privacy has changed in their lifetime. The					
	Send home: Ask your parent/guardian about how online privacy has changed in their lifetime. The vast amount of information (of all kinds) has expanded rapidly in the last 20 years. Ask how they feel					
	about the availability of information online and the steps they take to protect that information.					
	Optional questions for discussion:					
	Have you or your parent/guardian ever experienced a privacy breach or felt uncomfortable with because information was used online?					
	 with how your information was used online? What steps do you or your parent/guardian take to safeguard personal information while 					
	using online services or social media platforms?					
	External Resources:					
	Outcome Chart - Ontario - Digital Literacy					



Day 2 - Social Media Privacy

<u>Objective</u>: Students will explore the importance of privacy settings on social media, the risks of sharing personal information, and the significance of trusting online connections.

Before the lesson: Consider and review your privacy settings on social media to set a foundation for this lesson (optional).

Presentation: Article 15-20 Mins

Social Media Guide (cisa.gov)

Discussion Points: 15 Mins

Think before You Post:

 Discuss the potential implications of social media posts, such as their impact on future employment and personal reputation.

Privacy Settings:

 Explain the significance of privacy settings on social media platforms, covering topics like location sharing and public vs. private profiles.

Dangers of Sharing Personal Information:

 Highlight the risks of sharing personal information on social media, including identity theft and cyberbullying.

• Trusting Online Connections:

• Discuss the importance of connecting only with people students trust online. Explore the potential consequences of interacting with strangers.

Reflect: 10 Mins

Reflect on a time that you or someone you know was contacted by a stranger through social media. How did you/they react to this? Do you think it's okay to trust strangers on social media? Why or why not?

<u>Send home</u>: Review your privacy settings on social media, what are they? Did anything surprise you about these settings? What will you change after learning this?

External Resources:

Outcome Chart - Ontario - Critical Thinking and Problem Solving





Day 3 - Ad-Blocking and Online Privacy

Objective: Students will learn about ad-blocking software, its role in enhancing online privacy, and its impact on online advertising.

<u>Before the lesson</u>: Complete the send home activity yourself to set the foundation for this lesson (optional)

Infographic: 5-10 Mins

Why You Should Be Using Ad-Blocking Software

Discuss: 20 Mins

What is Ad-Blocking Software:

Define ad-blocking software and explain how it works to block online ads.

Enhancing Online Privacy:

 Discuss how ad-blockers can improve online privacy by reducing the tracking of online behavior.

Avoiding Advertising Overload:

 Explore the benefits of ad-blockers in reducing advertising overload and maintaining a smoother browsing experience.

• Ethical Considerations:

 Introduce the ethical considerations associated with ad-blocking and its impact on content creators.

• The Influence of Ads:

Share thoughts on the influence of ads on consumer behavior and personal choices.

Reflect: 15 Mins

Think about how often you see ads online. Do you enjoy seeing ads online? Do you feel that ads can influence your opinion on a product or service? Have you ever bought something online because you saw an ad for it?

<u>Send home</u>: Browse online through various pages like you normally would for 15 minutes. Be mindful about how many ads you encounter during this time. Do you notice any trends? After 15 minutes, write down as many ads as you remember during those 15 minutes. What about those ads specifically caught your attention?

External Resources:

Outcome Chart - Ontario - Critical Thinking and Problem Solving





Day 4 - Navigating Privacy Policies

<u>Objective</u>: Students will understand the purpose of privacy policies, the importance of reading them, and the potential risks of accepting without review.

Before the lesson: N/A

Infographic: 10 Mins

How to Skim a Privacy Policy before clicking "I accept"

Discuss: 15 Mins

• The Purpose of Privacy Policies:

 Explain the purpose of privacy policies and how they protect both users and companies.

• Reading Privacy Policies:

o Discuss why it's essential to read privacy policies before accepting them.

Skimming Effectively:

 Teach students how to skim through a privacy policy effectively, identifying key sections and potential concerns.

Privacy Policy Length:

 Discuss whether companies intentionally make privacy policies lengthy to discourage users.

Reflect: 10 mins

Have you ever accepted a privacy policy/term of service without reading any of it? Do you think companies intentionally make these documents long to discourage users from reading them? What are some risks associated with accepting privacy policies without reading them?

Send home: What is the Privacy Policy and what does it cover?

Open Facebook's lengthy privacy policy and skim for the key sections. Now read the key sections and see what you discover. What did you expect, and what surprised you? Would you reconsider accepting their policy after reading this?

External Resources:

Outcome Chart - Ontario - Digital Literacy





Day 5 - Cybersecurity and Protecting Personal Information

<u>Objective:</u> Students will explore cybersecurity measures, online protection of personal information, and strategies for avoiding online scams.

Before the lesson: N/A

Article: 10 Mins

How becoming cyber secure can help protect your privacy

Discuss: 15 mins

Week 1

Be Private

- Cybersecurity and Privacy:
 - Discuss how becoming cyber secure can help protect personal privacy.
- Protecting Personal Information:
 - Share best practices for safeguarding personal information online, such as strong passwords and two-factor authentication.
- Recognizing Phishing Messages:
 - Define phishing messages and teach students how to recognize and avoid them.
- Application of Knowledge:
 - Ask students to share one thing they learned this week about protecting their privacy that they intend to use.

Reflect: 10 Mins

Have you or someone you know encountered a phishing scam (or another online scam)? What was your/their reaction? What can we do to avoid falling for online scams in the future?

Send home: New device checklist - Get Cyber Safe

Go through the new device checklist provided by Get Cyber Safe and mark off everything you have completed for your device(s). Is anything missing? Keep track and apply the remaining steps when you get home. Share with the class what you did to further secure your device.

Curriculum Links:

Ontario - Curriculum and Resources Critical Thinking and Problem Solving



GIERDIROFIGILIS INDIESSONEINS



See our daily view for more details!

9-12	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Week 1	10 Immutable Rules	Social Media Privacy	Ad-Blocking and Online Privacy	Navigating Privacy Policies	Cybersecurity and Protecting Personal Information
BE PRIVATE	45 mins	45 mins	45 mins	35 mins	35 mins
Week 2 BE SECURE	Password Security Best Practices 45 mins	Understanding Virtual Private Networks (VPNs) 45 mins	Secure Your Personal Network 40 mins	Secure Your Personal Devices 35 mins	CyberStart Canada Challenge! 45 mins
Week 3 BE SKEPTICAL	Tackling Misinformation Online 45 mins	Recognizing Scams 35 mins	Understanding Media Bias 45 mins	The Business of Social Media 45 mins	Escaping Filter Bubbles 45 mins
Week 4 BE POSITIVE	Navigating Online Life in Post-Secondary 45 mins	Exploring Cybersecurity as a Career Path 45 mins	The Importance of Cybersecurity Preparedness 40 mins	Pink Shirt Day - Anti-Online Bullying Awareness 40 mins	Exploring STEM Fellowship and PicoCTF 45 mins

0.42	Day 1 - Password Security Post Practices				
9-12	Day 1 – Password Security Best Practices				
	<u>Objective:</u> Students will learn about the importance of online security, how to use a password manager, the significance of multi-factor authentication (MFA), and how password managers can help protect against multi-account attacks.				
	<u>Before the lesson</u> : Conduct brief research on password managers identify two password managers for students to research as part of the send home activity (optional). Students can also be instructed to select two password managers of their choice and complete the activity that way.				
	Infographic: 10 mins Tips for Choosing Passwords				
Week 2 Be Secure	 What habits do you think are most important to ensure your online security? Encourage students to brainstorm and discuss habits like using strong passwords, not sharing passwords, and being cautious about phishing emails. How to use a password manager (tutorial) Provide a step-by-step tutorial on how to set up and use a password manager. Use a demo account or a widely available password manager for the tutorial (i.e. Google Chrome built-in password manager) What is multi-factor authentication, and why should you use it? Explain the concept of MFA, emphasizing its importance in adding an extra layer of security. Share real-world examples of MFA in action. How password managers help avoid multi-account attacks from hackers. Discuss how password managers generate strong, unique passwords for each account, reducing the risk of a security breach. Explain the benefits of autofill and secure storage. 				
	 Reflect: 15 mins Reflect on your current habits when securing accounts online. Ask students to evaluate their current online security practices and identify areas for improvement. Based on the lesson today, what habits and practices will you start to implement as soon as possible? Why? Encourage students to share the specific security habits they plan to adopt and explain why these changes are important. 				
	Send home: Download a password manager at home and secure 5 of your most important accounts. The next day, ask students about the process of using a password manager and encourage them to continue securing more accounts.				
	<u>Curriculum Links:</u> Ontario - Curriculum and Resources Digital Literacy				



Day 2 - Understanding Virtual Private Networks (VPNs)

<u>Objective:</u> Students will gain an understanding of Virtual Private Networks (VPNs), their importance for online security, and practical applications of VPNs in various contexts.

Before the lesson: Conduct research on two password managers of your choice (or provided by teacher). Review their privacy policies, terms of service, offerings, history, etc. Now, create a pros and cons list for each competitor and decide which one you would feel more comfortable using. Explain your reasoning.

Article & Infographic: 10 Mins

<u>VPNs - Get Cyber Safe</u> <u>Public Wifi Safety</u>

Discuss: 20 Mins

- What is a VPN, and why is it used?
 - Define a VPN as a secure connection that acts like a tunnel between your device and the internet, providing additional security and privacy. Discuss why VPNs are used to protect online data.
- Examples of good times to use a VPN for added security (travel, public networks, confidential documents, etc.)
 - Explore scenarios where using a VPN is beneficial, such as when traveling, using public
 Wi-Fi, or handling confidential information.
- Examples of VPNs available: how to use them + strengths and weaknesses of each one.
 - o Introduce different types of VPNs, including browser extensions, device apps, and router-based VPNs. Discuss the strengths and weaknesses of each type.

Reflect: 15 Mins

- Why would a student want to use a VPN while working on a local network?
 - Encourage students to think about scenarios where students might want to protect their online activities, even on a local network.
- What about a government official working from home?
 - Explore the unique security needs of government officials working remotely and how VPNs can help safeguard sensitive government data.
- What about an accountant at a bank?
 - Discuss the responsibilities of bank accountants and the importance of VPNs in securing financial transactions and customer information.
- Why do you think VPNs are useful for various people with different responsibilities?
 - Encourage students to reflect on the universal applicability of VPNs and how they cater to diverse security needs.

<u>Send home</u>: Conduct research on two VPNs of your choice (or provided by teacher). Review their privacy policies, terms of service, offerings, history, etc. Now, create a pros and cons list for each competitor and decide which one you would feel more comfortable using. Explain your reasoning.

Curriculum Links:

Ontario - Curriculum and Resources Digital Literacy

Be Secure

Week 2



Day 3 – Secure Your Personal Network

Objective: Students will learn about the importance of creating a guest network to protect their devices and personal information in a connected home environment.

Before the lesson: N/A

Infographic: 5-10 Mins

Secure Your Network: How to Make a Guest network to protect your devices and information

Discuss: 20 Mins

- What smart devices do you have in your home?
 - Begin the discussion by having students identify and share the smart devices they have in their homes, fostering awareness of their connected environment.
- The risks of having smart devices connected to your personal network.
 - Discuss the potential security risks associated with connecting smart devices to the main personal network, including privacy concerns and unauthorized access.
- How to create a guest network to protect your information.
 - Provide step-by-step instructions on setting up a guest network at home to protect personal information and enhance security.
- How do guest networks help protect your information?
 - Explore the mechanisms by which guest networks isolate smart devices, reducing security risks and safeguarding personal information.

Reflect: 10-15 Mins

- After learning this information, would you use a guest network on your personal/home network? Why or why not?
 - Encourage students to reflect on the benefits of guest networks and their own willingness to implement one in their homes. Discuss the rationale behind their decisions.

<u>Send home</u>: Use the guide provided for the lesson to create a guest network at home! If you already have one set up, ask your parent/guardian why they set up a guest network and discuss the benefits of this strategy.

Curriculum Links:

Ontario - Curriculum and Resources Critical Thinking and Problem Solving





Day 4 – Secure Your Personal Devices

<u>Objective:</u> Students will learn essential steps to secure their devices and enhance cybersafety, including the importance of strong passwords, regular updates, and awareness of potential cyber threats.

Before the lesson: N/A

Infographic: 5 Mins
Device Security Visual

Discuss: 20 Mins

- What makes a device secure or not?
 - Discuss the key factors that contribute to a device's security, including strong passwords, multifactor authentication, and regular app and OS updates.
- What is Malware, and how does it affect your devices?
 - Explain what malware is and how it can compromise the security of your devices.
 Discuss the potential consequences of malware infections.
- Regularly check for OS and app updates to ensure you use the most secure version of that service.
 - Emphasize the importance of keeping both the device's operating system and apps up to date to stay protected from vulnerabilities.
- Bluetooth & Airdrop: Leaving them on could expose you to cybercrime!
 - Discuss the risks of leaving Bluetooth and Airdrop enabled when not in use and how cybercriminals can exploit these features.

Reflection: 10 Mins

• For iPhone users: everyone in class turns on Airdrop. Look at the access you have to everyone's phone through Airdrop; Scammers can take advantage of this access by sending malicious files directly to your iPhone and potentially stealing your information.

<u>Send home</u>: Check the updates section on your phone. How many apps need an update? Remember that updates often make your device/apps less vulnerable to cyberattacks. Updates should always be downloaded as soon as possible.

Curriculum Links:

Ontario - Curriculum and Resources Digital Literacy

Week 2 Be Secure



Day 5 – CyberStart Canada Challenge!

<u>Objective:</u> Students will explore the importance of cybersecurity across various industries. By participating in CyberStart program, students will be introduced to fundamental aspects of cybersecurity through interactive games and challenges.

<u>Before the lesson</u>: Reminder: Account needs to be verified before playing and it can take a day or 2 to get verified so students and teachers should make an account in advance be accepted. Register as soon as possible (ideally before the lesson) so you can get started on challenges ASAP!

Video & Article: 15-20 Mins

CyberStart Canada CyberDay 2023

Inspiring Women in Cybersecurity

Discuss: 15 Mins

- Why is Cybersecurity an important field for all industries?
 - Discuss the critical role of cybersecurity in protecting sensitive data, infrastructure, and operations across various industries, emphasizing its universal relevance.
- The evolution of online communication and why cybersecurity is needed in the global economy.
 - Explore how online communication has evolved and the constant need for cybersecurity in an interconnected global economy. Highlight the growth of cyber threats.

Why is cybersecurity education important for students and teachers?

• Discuss the importance of cybersecurity education to empower individuals with the knowledge and skills needed to navigate the digital world safely.

Reflect: 10 Mins

- Do you think games and challenges like this one are useful for developing skills in a complicated field like cybersecurity? Why or why not?
- How could the experience developed through these challenges help you secure a job in the future?

Send home: Visit the website: CyberStart Canada - Free cybersecurity program for youth

• Try out CyberStart and experience all the games and challenges they have to offer. CyberStart hosts tournaments often where students can compete against each other to earn points and win prizes. Check often for updates on tournaments and special challenges!

Curriculum Links:

Ontario - Curriculum and Resources Digital Literacy





GIERDIROFIGILIS INDIESSONEINS



9-12	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Week 1 BE PRIVATE	10 Immutable Rules 45 mins	Social Media Privacy 45 mins	Ad-Blocking and Online Privacy 45 mins	Navigating Privacy Policies 35 mins	Cybersecurity and Protecting Personal Information 35 mins
Week 2 BE SECURE	Password Security Best Practices 45 mins	Understanding Virtual Private Networks (VPNs) 45 mins	Secure Your Personal Network 40 mins	Secure Your Personal Devices 35 mins	CyberStart Canada Challenge! 45 mins
Week 3 BE SKEPTICAL	Tackling Misinformation Online 45 mins	Recognizing Scams 35 mins	Understanding Media Bias 45 mins	The Business of Social Media 45 mins	Escaping Filter Bubbles 45 mins
Week 4 BE POSITIVE	Navigating Online Life in Post-Secondary 45 mins	Exploring Cybersecurity as a Career Path 45 mins	The Importance of Cybersecurity Preparedness	Pink Shirt Day - Anti-Online Bullying Awareness 40 mins	Exploring STEM Fellowship and PicoCTF 45 mins

9-12	Day 1 - Tackling Misinformation Online					
9-12 Week 3 Be Skeptical	Day 1 - Tackling Misinformation Online Objective: Students will explore the spread of misinformation online, its impact on public trust, and methods to combat it. Before the lesson: Visit the WHOIS Database and decide if you would like to use it as a resource for the send home activity. Article: 10 Mins How to identify misinformation, disinformation, and malinformation Discuss: 20 Mins • Why Misinformation Spreads: • Discuss the reasons behind the rapid spread of misinformation online, including psychological factors and social media platforms. • Threats of Misinformation: • Explore the threats that misinformation poses to public trust, decision-making, and society as a whole. • New Era of Misinformation: • Introduce new challenges, such as Al-generated content and deepfakes, in the realm of misinformation. • Tackling Misinformation: • Discuss strategies and best practices for identifying and countering misinformation. • Avoiding Being a Victim: • Explore the best methods to ensure you aren't inadvertently spreading or falling victim to misinformation.					
	 of misinformation. Tackling Misinformation: Discuss strategies and best practices for identifying and countering misinformation. Avoiding Being a Victim: Explore the best methods to ensure you aren't inadvertently spreading or falling 					



Day 2 - Recognizing Scams

<u>Objective:</u> Students will learn to identify common types of scams, understand why scams work, and know what to do when approached by scammers.

Before the lesson: Create a slideshow with examples of REAL scam messages (text, email, etc.) and FAKE scam messages created by the teacher. Use this for send home activity (or during class)

Infographic: 5 Mins

Scam Red Flags: Look out for these!

Discuss: 20 Mins

• Common Types of Scams:

Discuss different common types of scams and their target demographics.

Spotting Scams:

 Teach students how to effectively spot red flags and warning signs that indicate a potential scam.

Why Scams Work:

Explore the psychological and technological factors that make scams successful.

Responding to Scammers:

 Discuss what students should do if they are approached by a scammer, emphasizing the importance of reporting and not engaging.

Reflect: 10 Mins

Can you think of any scams you or a friend/family has encountered recently? What was the scam, and how did you/they identify it as a scam? How did they respond to the scam?

<u>Send home</u>: Provide students with fake Vs real scams slideshow. Task the students with identifying which scams are real and which are fake. Ask them to record their answers and be prepared to discuss their reasoning tomorrow.

Curriculum Links:

Ontario - Curriculum and Resources Digital Literacy

Week 3 Be Skeptical



Day 3 – Understanding Media Bias

<u>Objective</u>: Students will explore how media bias influences perceptions, the role of social media algorithms in strengthening media bias, and strategies to break free from media bias.

Before the Lesson: N/A

Infographic: 15 Mins

Understanding Human Biases and Their Role in Misinformation and Social Media

Discuss: 20 Mins

- Captivating Attention on Social Media:
 - o Discuss how social media platforms are designed to captivate our attention.
- Media Bias:
 - Define media bias and teach students how to spot it in news sources.
- Social Media Algorithms:
 - Explain how social media algorithms reinforce our personal biases and create filter bubbles.
- The CRISP Scan:
 - Introduce the CRISP scan as a tool for responsible scrolling and information consumption.

Reflect: 10 Mins

Reflect on times you may have been exposed to different types of media biases? Discuss with the class how that could or has influenced you.

<u>Send home</u>: Scroll through social media for at least 20 minutes and actively think about the CRISP scan. How often did you use the scan? Did you find it helpful to scroll mindfully and be conscious of the information you consume?

External Resources:

Outcome Chart - Ontario - Communication





Day 4 - The Business of Social Media

<u>Objective:</u> Students will explore the business model of social media, how ads get our attention, and the concept of mindful scrolling.

Before the lesson: Review the AD/NOT AD activity in the slideshow or video. Determine if you want students to complete this activity during class or as a send home activity.

Slideshow OR Video: 20 Mins
Know Your Worth on Social Media

Discuss: 15 Mins

• The Business of Social Media:

Understand how social media platforms profit from users' attention.

Social Media Ads:

 Learn to recognize what social media ads look like and how they capture our attention.

Examples of Ads Exercise:

Use video/slideshow to show examples of ads and discuss what students notice.

Scrolling Mindfully:

 Teach students how to scroll mindfully on social media to avoid falling into attention traps.

Reflect: 10 Mins

Share insights and observations regarding the strategies used by social media and advertisers to capture your attention. Were you already aware of these strategies? What part of this lesson surprised you?

<u>Send home</u>: Pick a social media platform and scroll through 20 posts, keeping a list of AD/NOT AD. For ADs, write what was being sold. Discuss your findings with the class tomorrow, including the ratio of AD/NOT AD, types of products/services, and any trends you notice.

External Resources:

Outcome Chart - Ontario - Communication

Week 3 Be Skeptical



Day 5 - Escaping Filter Bubbles

<u>Objective:</u> Students will understand what filter bubbles are, how they are created, their limitations, and strategies to diversify information sources.

Before the lesson: N/A

Slideshow: 15 Mins Filter Bubble Trouble

Discuss: 20 Mins

- What is a Filter Bubble?
 - o Define filter bubbles and explain how they are created through everyday interactions.
- Online Algorithm Role:
 - Discuss how online algorithms increase filter bubbles by reinforcing personal perspectives and biases.
- Limitations of Filter Bubbles:
 - Explore the limitations and drawbacks that filter bubbles create in terms of information diversity and understanding different perspectives.
- Diversifying Information Sources:
 - o Discuss strategies to diversify information sources and escape filter bubbles.

Reflect: 10 Mins

Discuss with the person beside you something that caught your attention online recently. Was this topic brought up again with your friends? What were everyone's thoughts on it? Reflect on how these instances can create filter bubbles without our awareness.

<u>Send home</u>: Reflect on the filter bubbles you have found yourself in or are currently in. Consider how media and your surroundings may have influenced this bubble and the potential implications of being in this filter bubble for an extended period.

External Links:

Outcome Chart - Ontario - Communication







9-12	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Week 1 BE PRIVATE	10 Immutable Rules 45 mins	Social Media Privacy 45 mins	Ad-Blocking and Online Privacy 45 mins	Navigating Privacy Policies 35 mins	Cybersecurity and Protecting Personal Information 35 mins
Week 2 BE SECURE	Password Security Best Practices 45 mins	Understanding Virtual Private Networks (VPNs) 45 mins	Secure Your Personal Network 40 mins	Secure Your Personal Devices 35 mins	CyberStart Canada Challenge! 45 mins
Week 3 BE SKEPTICAL	Tackling Misinformation Online 45 mins	Recognizing Scams 35 mins	Understanding Media Bias 45 mins	The Business of Social Media 45 mins	Escaping Filter Bubbles 45 mins
Week 4 BE POSITIVE	Navigating Online Life in Post-Secondary	Exploring Cybersecurity as a Career Path	The Importance of Cybersecurity Preparedness	Pink Shirt Day - Anti-Online Bullying Awareness	Exploring STEM Fellowship and PicoCTF

45 mins

45 mins

40 mins

40 mins

45 mins



Day 2 - Exploring Cybersecurity as a Career Path

<u>Objective:</u> Introduce students to the concept of a career in cybersecurity. Students should gain a general understanding of what cybersecurity professionals do, various jobs that exist in the industry, and why cybersecurity is important across all industries.

Before the lesson: Get students to write down what they expect a career in cybersecurity to look/be like, and their interest in the field.

<u>Presentation</u>: Article 15-20 Mins Become a Cybersecurity Pro

Discuss: 15 Mins

- The Cybersecurity industry needs skilled workers. After learning the foundations of cybersecurity, could you see yourself pursuing a career in cybersecurity?
 - Discuss the career prospects in the cybersecurity field and encourage students to consider if they can envision themselves pursuing a career in this industry.
- What does a cybersecurity professional do?
 - Explore the roles and responsibilities of cybersecurity professionals, shedding light on their contributions to digital security.
- Why is cybersecurity important for companies of all sizes? How does cybersecurity protect public organizations like governments and hospitals?
 - Delve into the significance of cybersecurity for organizations of varying sizes and discuss how it plays a crucial role in safeguarding public entities like governments and hospitals.

Reflect: 10 Mins

Review your expectations written before class. After today's class, how has your opinion/expectation changed? Did anything surprise you about cybersecurity? Are you any more or less interested in the field now? Why?

<u>Send home</u>: Look up cybersecurity breaches in the news. These breaches cost companies millions of dollars to resolve. In many cases, they can save a lot of money by preparing for the worst before it happens. This is the value cybersecurity professionals have.

External Resources:

Outcome Chart - Ontario - Global Citizenship and Sustainability

Week 4 Be Positive



Day 3 – The Importance of Cybersecurity Preparedness

<u>**Objective:**</u> Students will reflect on their preparedness to deal with cybersecurity, assess the value of establishing good cybersafety practices, and understand the consequences of neglecting cybersafety.

Before the lesson: N/A

Presentation: Interactive Infographic 10 Mins

What's the harm?

Discuss: 20 Mins

- How much more prepared do you feel to deal with cybersecurity after all of these lessons?
 - Encourage students to evaluate their readiness to handle cybersecurity challenges and discuss their level of confidence.
- Is the effort required to establish good cybersafety worth it?
 - Engage in a discussion about the effort involved in practicing good cybersafety and whether the benefits outweigh the costs.
- What's the harm of neglecting cybersafety altogether?
 - Explore the potential consequences of neglecting cybersafety practices, emphasizing the risks involved in doing so.
- "I haven't been affected before, so what are the odds that I get affected now?"
 - Discuss the misconception that past online experiences guarantee future safety, highlighting the importance of continuous vigilance.

Reflect: 10 Mins

Reflect on a time when you or someone you know approached an online problem with the attitude of "what's the harm?" and it backfired. Emphasize the idea that prevention is easier than resolution and the importance of taking proactive steps to protect oneself online.

<u>Send home</u>: Read through the infographic from this lesson and summarize all the reasons for kids, youths, and adults to care about establishing strong cybersecurity practices. Relate your reasonings to everything you learned in previous weeks' lessons.

Curriculum Links:

Ontario - Curriculum and Resources Digital Literacy





Day 4 - Pink Shirt Day - Anti-Online Bullying Awareness

<u>Objective:</u> Students will learn about Pink Shirt Day, its significance in combating bullying, and reflect on their roles in preventing cyberbullying.

<u>Before the lesson</u>: Conduct brief research on Pink Shirt Day to ensure you understand the meaning behind the day and prepare an introduction for the lesson.

Presentation: Infographic 10 Mins

<u>Pink Shirt Day – Anti-Online Bullying Awareness</u>

Discuss: 20 Mins

What is Pink Shirt Day?

 Discuss the origins and meaning of Pink Shirt Day and its representation as a symbol against bullying.

Evolution of Bullying

 Explore how bullying has evolved from physical schoolyard incidents to online platforms. Discuss the differences between cyberbullying and in-person bullying.

Combating Bullying Together

 Engage students in a conversation about the importance of collective action to combat bullying, whether in person or online.

Reflect: 10 Mins

Talk to the person beside you about a time you witnessed bullying. What was your reaction? How did you respond. If you could go back in time, would you do anything different?

<u>Send home</u>: Reflect on how cyberbullying affects individuals and make a promise to hold yourself accountable and stand up for anyone you witness being cyberbullied. We can work together to decrease the adverse effects of cyberbullying one step at a time.

External Resources:

Outcome Chart - Ontario - Communication

Week 4 **Be Positive**



Day 5 - Exploring STEM Fellowship and PicoCTF

<u>**Objective:**</u> Students will learn about STEM Fellowship's mission, its focus on STEM disciplines, and explore the relationship between cybersecurity and PicoCTF.

<u>Before the lesson</u>: Get course login for PicoCTF so students can try the problems later today. Register in advance to ensure verification does not overlap with scheduled lesson.

Review both websites and determine which sections you want to share with students. Alternatively, create a slideshow with screenshots of either website.

Presentation: 15 Mins

STEM Fellowship Program OR picoCTF

Discuss: 15 mins

- STEM Fellowship's Mission:
 - Discuss STEM Fellowship's mission and its objectives in promoting STEM (Science, Technology, Engineering, and Mathematics) education and experiences.
- Focus on STEM Disciplines:
 - Explore the specific STEM disciplines that STEM Fellowship focuses on and how they relate to what students have learned in cybersecurity.
- PicoCTF and CyberSafety:
 - Discuss how PicoCTF relates to cybersecurity and whether students see themselves participating in such challenges.
- PicoCTF's Goal:
 - Understand the goal of PicoCTF and its role in promoting cybersecurity skills and knowledge.

Reflect: 15 Mins

Reflect on the discussions and activities regarding STEM Fellowship and PicoCTF. Ask students how they envision themselves participating in STEM-related activities, especially in the context of cybersecurity.

Send home:

Competition Overview - CyberTitan | Canada's cyber security education initiative.

Review the CyberTitan Competition information page. Look into how the competition is structures and what students learn by participating. Consider registering a team for next year's CyberTitans competition!

External Resources:

Outcome Chart - Ontario - Global Citizenship and Sustainability



