Grades 9-12

Teacher Unit Plan
High School Grades

Cybersecurity Resources for Teachers & Educators

About the resources

These resources are a free, comprehensive set of teaching materials; created by cybersecurity experts and Canadian educators, and linking directly to the Ontario curriculum. Available in four grade groupings, the language, learning goals and activities have been adapted to learners in primary (grades 1 to 3), junior (grades 4 to 6), intermediate/senior (grades 7 and 8) and high school (grades 9 to 12).

Resources include start-to-finish teaching materials, such as unit plans and recommended rubrics for teachers, and corresponding lesson worksheets for students. Lessons cover various essential topics related to digital citizenship, cybersecurity and cyber safety – such as cyber respect and online kindness (cyberbullying), communicating safely online, positive digital footprint and more!

Using the resources

The goal of these resources is to provide a modern, curriculum-linked set of materials for Ontario educators and teachers, empowering and preparing them to equip youth with the knowledge and tools they need to use technology in a positive way, while at the same time being able to identify and prevent the associated risks.

These resources are accessible and can be easily implemented in the physical classroom or the online, virtual classroom environment.

The Catalyst has proactively offered two versions of all resources:

1. **A PDF version,** intended to be a downloadable, ready-to-use resource for educators and teachers. Download, print and share physical or digital copies with students for instant use.

2. **A Microsoft Word version** contains the same content as the PDF version. However, the Word version is editable, and allows for language and worksheets to be modified by educators and teachers as needed. It is recommended to edit the unit plans and lessons to accommodate the various learning needs and abilities of your students, or to incorporate additional or preferred modalities into the lessons.

Additional cybersecurity resources

La Cybersecurity, cyber safety and digital citizenship are relatively new areas of study; and, although these resources have been developed with the potential of limited technical or cyber experience in mind, we recognize that additional information may be needed to supplement an understanding of the topics covered.

We encourage educators and teachers to conduct independent research, and take advantage of the multitude of free resources available online, including the Rogers Cybersecure Catalyst youth resources: https://www.cybersecurecatalyst.ca/cybersecurity-for-k-12

About the organization

The *Rogers Cybersecure Catalyst*, 'the Catalyst', is a not-for-profit corporation owned and operated by Ryerson University. The Catalyst strives to empower Canadian citizens and businesses to take full advantage of the opportunities in the virtual space, and tackle the serious challenges of cybersecurity, through training and certification; commercial acceleration and support for cyber scale-ups; applied research and development; and public education.

About the initiative

 In 2019, the *Rogers Cybersecure Catalyst*, partnered with Rogers Communications Inc., to help develop the Canadian cybersecurity ecosystem and fuel Canada's digital economy. As a leading technology and media company in Canada, Rogers is committed to keeping Canadians cyber safe.

Together, the Catalyst and Rogers have identified a need to foster stronger collaboration between the cybersecurity community, academia and educational partners, to build awareness and understanding in cybersecurity, especially for youth.

Ontario Language Curriculum Overall Expectations

Oral Communication	Writing	Media Literacy
1. **Listening to Understand:** Listen in order to understand and respond appropriately in a variety of situations for a variety of purposes; 2. **Speaking to Communicate:** Use speaking skills and strategies appropriately to communicate with different audiences for a variety of purposes; 3. **Reflecting on Skills and Strategies:** areas for improvement, and the strategies they found most helpful in oral communication situations.	1. **Developing and Organizing Content:** Generate, gather, and organize ideas and information to write for an intended purpose and audience; 2. **Using Knowledge of Form and Style:** Draft and revise their writing, using a variety of literary, informational, and graphic forms and stylistic elements appropriate for the purpose and audience; 3. **Applying Knowledge of Conventions:** Use editing, proofreading and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression and present their work effectively; 4. **Reflecting on Skills and Strategies:** Reflect on and identify their strengths as writers, areas for improvement, and the strategies they found most helpful at different stages in the writing process.	1. **Understanding Media Texts:** Demonstrate an understanding of a variety of media texts; 2. **Understanding Media Forms, Conventions and Techniques:** Identify some media forms, and explain how the conventions and techniques associated with them are used to create meaning; 3. **Creating Media Texts:** Create a variety of media texts for different purposes and audiences, using appropriate forms, conventions and techniques; 4. **Reflecting on Skills and Strategies:** Reflect on and identify their strengths as media interpreters and creators, areas for improvement, and the strategies they found most helpful in understanding and creating media texts.

Culminating Task Rubric: Recording a Podcast

Category	Level 4	Level 3	Level 2	Level 1
Knowledge	Demonstrates thorough knowledge of chosen topic	Demonstrates considerable knowledge of chosen topic	Demonstrates some knowledge of chosen topic	Demonstrates limited knowledge of chosen topic
Thinking	Uses planning skills, such as graphic organizers, with a high degree of effectiveness	Uses planning skills, such as graphic organizers, with a considerable degree of effectiveness	Uses planning skills, such as graphic organizers, with some degree of effectiveness	Uses planning skills, such as graphic organizers, with limited effectiveness
Use of Critical Thinking Process	Uses critical creative thinking with a high degree of effectiveness by showing multiple perspectives (5+ sources)	Uses critical creative thinking with considerable effectiveness by showing multiple perspectives (3-4 sources)	Uses critical creative thinking with some effectiveness by showing a few perspectives (2-3 sources)	Uses limited critical creative thinking skills and only uses 1-2 sources
Communication for Different Audiences and Purposes	Expresses and organizes ideas clearly; and uses conventions, voice and terminology of the discipline with a high degree of effectiveness	Expresses and organizes ideas clearly; and uses conventions, voice and terminology of the discipline effectively	Expresses and organizes ideas somewhat clearly; and uses some conventions, voice and terminology of the discipline	Ideas are disorganized; and there is limited use of conventions, voice and terminology of the discipline
Application of Knowledge and Skills	Transfers knowledge and research skills to new contexts (Podcast) with a high degree of effectiveness	Transfers knowledge and research skills to new contexts (Podcast) effectively	Transfers knowledge and research skills to new contexts (Podcast) somewhat effectively	Transfers knowledge and research skills to new contexts (Podcast) with limited effectiveness

Unit Overview

This unit is designed to teach students about the main topics in cybersecurity today. It will engage students in conversations on the subject area as it relates to their use of technology, while upholding the values of digital citizenship. Digital citizenship refers to the responsible and safe use of technology and the Internet by anyone who uses it to engage with society.

This unit has assessments throughout and leads to a culminating task: a student-developed Podcast on their chosen topic on a theme related to cybersecurity and digital citizenship.

Lessons Overview

Lesson 1 : Podcasts & Cybersecurity

Lesson 2 : Ready, Set, Go? Looking at Passwords

Lesson 3 : Listening for More (Information Verification)

Lesson 4 : YOU: The Podcaster. Managing Your Digital Footprint

Lesson 5 : Themes in Cybersecurity

Lesson 6 : Drafting the Podcast

Lesson 7 : Recording the Podcast*

Aucun document à remettre pour la leçon 7.

Teacher Resource: Recording The Podcast Rubric

For additional information on the topics covered or additional supporting materials, check out:

- the *Rogers Cybersecure Catalyst* downloadable Youth Resources:
  https://www.cybersecurecatalyst.ca/cybersecurity-for-k-12

Getting Started

Before beginning this unit, it's recommended that teachers take time with their class to explore key areas in cybersecurity – or give students independent time to do so themselves.

The *Rogers Cybersecure Catalyst* at Ryerson University has identified six overarching themes that have influenced the lessons in this unit: Cyber Respect & Online Kindness (a response to cyberbullying), Positive Digital Footprint (online image/reputation), Information Verification (separating truth from lies online), Privacy Online (strong and secure passwords and passcodes), Safe Communication Online and Safety Online (understanding online risks and device security).

Below is a high-level description of each of the six themes and topics mentioned throughout the subsequent lessons; however, for additional information on the topics covered, or additional supporting materials, check out the Rogers Cybersecure Catalyst downloadable Youth Resources, with modified versions available for grades 7-12:

https://www.cybersecurecatalyst.ca/cybersecurity-for-k-12

Cyber Respect & Online Kindness: Cyberbullying	Digital Footprint: A Positive Digital Image
When a person or a group targets an individual online with the intention of harassment, threat, humiliation or causing embarrassment, that's cyberbullying. It can include things like name-calling or spreading rumours, sharing personal content, or forcing someone to do something they don't want to do. Cyberbullies use different online methods, targeting individuals using text messages, direct messages (DMs), group chats, and comments on social media, or even while playing online games. The grade 7-12 digital resource contains information on what online bullying is and is not; forms of cyberbullying; and offers guidance on how to report it and navigate it with cyber respect and online kindness. Access the digital resource here.	"Digital footprint" refers to an online image or reputation; it's who the students appear to be and how people view them, based on their actions online. Everything they say and do online can easily become publicly visible, even if their privacy settings are turned on and set to the highest security setting. Students' online content can be shared, screen captured or printed without their knowledge. It's important for students to be kind and respectful toward others at all times, both in-person and online. The grade 7-12 digital resource contains information about what contributes to a positive digital footprint; how to build and maintain a positive image online; and how to help others build their own. Access the digital resource here.

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Information Verification: **Truth Online**	**Privacy Online:** **Passcodes**
It's becoming increasingly difficult to separate fact from fiction. Historically, people consumed news from mainstream media outlets that, for the most part, had reputations for credible and honest reporting. Now, because of the rise of the Internet, people have the ability to easily create and share content, which leads to the increased potential to share misleading, uninformed or possibly biased content. It's the responsibility of your students – and all Internet users – to ensure they're critical of the information they discover online. The grade 7-12 digital resource contains information on how to recognize misinformation; the implications of sharing false information; and how to verify information using important and practical skills. [Access the digital resource here.](#)	Passcodes, often referred to as passwords, are needed for individuals' safety and security, and to protect their privacy, online. Strong passcodes, as well as a different passcode for each account, stop others from getting into accounts and devices; and block dishonest people ("hackers") who try to try to guess passcodes. Passcodes should be mindfully cared for and never shared. Otherwise, students risk losing their accounts, damaging their reputation, or having their identity stolen. The grade 7-12 digital resource contains information on how to create a strong passcode, as well as tips on how to protect and manage passcodes. [Access the digital resource here.](#)

Safe Communication Online	**Safety Online: Understanding Online Risks**
Your students use technology primarily to communicate with each other – chatting with friends, commenting on posts, sharing pictures, and sending instant messages (IMs) to stay in touch. In addition to communicating with friends and peers, many social media platforms and mobile apps allow students to have conversations with people they've never met in-person; and sometimes it's hard to know who's on the other side of the screen or what their intentions are. The key to staying safe online is to limit the amount of private information they share publicly.	Online risks appear as scams, and malware or viruses, which could result in identity theft while using connected devices. In order for your students to keep their private information and accounts safe, they also need to keep their devices safe. Unfortunately, new schemes are becoming increasingly sophisticated; and without the proper understanding, students can unknowingly give up confidential information that allows cybercriminals to access their accounts or create new ones in their name.
The grade 7-12 digital resource contains information on how students can recognize potential risks while communicating online and empowers them to be mindful of the situations they place themselves in while online.	The grade 7-12 digital resource contains information on how students can avoid and prevent online risks to both themselves and their devices by browsing securely and downloading safely online.
[Access the digital resource here.](#)	[Access the digital resource here.](#)

Lesson 1: Podcasts & Cybersecurity

Lesson Plan for Parent(s)/Guardian(s)

Today, we're starting our Media Literacy unit with a focus on cybersecurity. Throughout this unit, students will conduct a deep-dive exploration on a topic of their choice that relates to cybersecurity, as well as their lives both now and in the future.

In today's lesson, we'll be learning about podcasts, and how they're effective tools to communicate important information to large audiences.

Students will also learn how to efficiently use search engines to find relevant podcasts regarding issues in cybersecurity, such as cyberbullying, protecting passcodes, privacy online and more.

| Hook

10 minutes	*Greet students as they enter the classroom* *Great time to check in about well-being*
	Engage prior knowledge about podcasts by asking for a show of hands of who has listened to a podcast before. For those who have listened to a podcast: Where do they listen? What do they listen to?
	This will give you a clear sense of your students' familiarity with the subject matter.
	Sample Definition:
	Podcast: A podcast is a digital audio file made available on the Internet for downloading to a computer or mobile device, typically available as a series, new instalments of which can be received by subscribers automatically.
	Suggested Discussion Starter:
	Podcasts are a great way for people of all ages to listen to stories; learn about current events and history; and answer many of our burning questions. They have become increasingly popular, and there's a podcast for just about every topic. For this Media Literacy unit, we'll be using podcasts as a way to learn more about themes related to cybersecurity.
	Cybersecurity Thumbs Up/Thumbs Down
	Gauge relatability to important cyber topics by asking the following yes or no questions. Have students indicate their responses with a thumbs up for "yes," thumbs down for "no" or thumbs to the side if they're unsure.
	Read the prompts you believe relate most to your classroom, or adjust as needed:
	❏ I keep my passwords private and protected from others ❏ I use a different and unique password for each account I have ❏ I know someone whose device or account has been hacked ❏ My social media accounts are set to private ❏ There is no such thing as a "Delete" button for the Internet; once it's there – it's always there. ❏ If I suspected someone was being cyberbullied, I know how to help them ❏ I understand the difference between (cyber) bullying

	and conflict ❏ I only interact, chat or follow/add friends online that I know in real life ❏ I get my news from trusted and reliable online sources ❏ I can effectively use a search engine (i.e., Google) to get information ❏ I trust my gut when using technology ❏ I know how to turn off my location settings on my devices Encourage students to use these statements, as well as the discussion at the beginning of the unit, to help them start thinking about an area of cybersecurity that interests them – and that they will pursue further for their Podcast assignment (statements above relate to one or more of the six themes provided at the beginning of the unit plan).
Learning Goals & Success Criteria **5 minutes**	***Share learning goals for purposeful learning*** **Learning Goals** ❏ I can locate podcasts on the Internet ❏ I can relate to relevant topics in cybersecurity ❏ I can use a search engine effectively to filter my results
Input & Modelling	*Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding.* Model how to research the relevant topic on your preferred search engine (i.e., www.google.com). **Guided Exercise:** The Internet is a limitless place that is literally growing larger every day. It's full of information and resources; and the ability to conduct research effectively online is a practical and highly transferable skill set that has many benefits across all areas of our lives, including personal life, academics and future career. The most important thing to remember when searching the Internet is to include "exclusions". When students understand how to search the Internet to exclude irrelevant or duplicate results, they save a lot of time and find much better, more reliable information. Encourage your students to try using the Boolean search operators below: **Sample definition:** ● Boolean search operators: A structured search process that allows the user to insert words or phrases – such as AND, OR, NOT – to limit, broaden and define the search results. **Sample Operators:** **Operator:**

	" "
	Description:
	Words within quotes will be treated as phrases (e.g., only results with "Moonwalk dog trick" are retrieved, pages that have only the words moonwalk, or dog or trick will be excluded from the results).
	Operator:
	AND
	Description:
	This means only pages with all keywords will be included (e.g., results will only include pages with both "moonwalk" AND "dog trick").
	Operator:
	OR
	Description:
	Allows users to broaden their search criteria to avoid excluding relevant results (e.g., "moonwalk" AND "dog" OR "cat" AND "trick").
	Operator:
	Site
	Description:
	Limits the search to a specific website or multiple websites (e.g., site:youtube.com "moonwalk" AND "dog" AND "trick").
	Give students the opportunity to practice using the sample search operators on their own and see what they find, filling out the correlating search engine results on their Lesson 1 handout.
Guided & Independent Practice **20 minutes**	***Observe, prompt, support, enrich*** The students' task is to use the search operators and a search engine to look up and fill in their Ticket Out the Door.
Check for Understanding **10 minutes**	***Observations, formative assessment*** Ticket Out the Door: Each student is to… ● Use a search engine*, such as Google or www.listennotes.com, and use the search operators from the guided exercise to help them find three (3) podcasts that relate to different topics within cybersecurity.

	● Put a star beside the podcast they believe is the most relevant/interesting.
	* CBC Podcasts (https://www.cbc.ca/radio/podcasts) is another website with free access to podcasts; however, their search function is not as user-friendly.
Closure	***Review, questions, wrap-up, discussion, appreciations*** Allow students a few minutes to log off their computers and tidy their workspace.
Resources	Headphones and laptops/Internet-connected devices
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ✔ ❏ Work samples/products ✔ ❏ Check-ins ✔ *As Learning:* ❏ Rubric ❏ Success criteria ✔ ❏ Self-reflection ❏ Other: Ticket Out the Door ✔ *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ❏ Other product
Notes	

Lesson 2: Ready, Set, Go? Looking at Passwords

Lesson Plan for Parent(s)/Guardian(s)

Today, students will be listening to a podcast for the purpose of learning the speaking and technical conventions used in podcasts.

Students will use these conventions when planning and delivering their very own Podcasts at the end of this unit.

Hook **10 minutes**	*Greet students* *Great time to check in about well-being* *Engage prior knowledge* With a partner or two (and a recording device, if possible) have students host a 30-second mock interview (practice podcast) about a topic related to passwords or passcodes (e.g., creating strong passwords, using passphrases, keeping passwords safe, the purpose of a password, etc.). Once the students are in their small groups and you've given them time to brainstorm, put a 30-second timer on and allow them to interview their peer(s). **Once the 30 seconds are up, ask the following question(s):** • What challenges and/or successes did you encounter during your podcast interview? • What would have been helpful to prepare you? Unsurprisingly, the amazing conversations we hear over podcasts are almost always carefully planned. This allows the direction of the podcast to be organized and come full circle in the span of one episode.
Learning Goals & Success Criteria **5 minutes**	Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this. ❏ I can listen to a podcast for the purpose of creating a podcast outline.
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. • Content • Process • Learning environment • Product Listening Activity Listen to the podcast as a class, or give students time to listen independently: • "Your Password is the Worst", available for free listening here: https://irlpodcast.org/season4/episode2/. Pause at 3 minutes and 7 seconds.

Class discussion:

- What communication conventions can you notice so far?
- Look for the following communication conventions:

  ❏ Introduction (Do the students remember the host's name or the name of the podcast?)
  ❏ Mention of the audience (hello to the audience or folks at home)
  ❏ Special guest(s)(are they interviewing someone?)
  ❏ Advertisements (or sponsorship, usually related to the main theme)
  ❏ Vocal segues (transition words and phrases)
  ❏ Sound effects
  ❏ Closing remarks (thank you for listening)

Optional Extension: Using the podcast "Your Password is the Worst" as a segue, take this opportunity to discuss the importance of passwords as it relates to cybersecurity – this may be an area of interest for your students' Podcast assignment.

Suggested Discussion Starter: Passcodes (more commonly called passwords) are needed for your safety and security, and to protect your privacy, online. Strong passcodes, as well as a different passcode for each account, stop others from getting into your accounts and devices by dishonestly pretending to be you. Passcodes should be mindfully cared for and never shared. Otherwise, you risk losing your accounts, damaging your reputation, or having your identity stolen.

Simple rules for creating strong passwords:

- Longer is stronger! Long passcodes are harder for others to guess, and hackers to decode. Most accounts require a minimum passcode length of 10 characters; however, 12-15 characters are recommended.
- Use a passphrase! A passphrase can be a few random words used together that are easy to remember.
- Never use any personal or private information in your passcode or passphrase – information that someone might already know or easily obtain.
- Create passcodes with a variety of characters! Including capital letters (ABC) and small letters (abc), numbers (123) and symbols (!, @, #). Using all four types makes for a strong passcode.
- Do not use repeating numbers like '777' or use a number count like '123', or a significant date like your birthday.

These are too easy to guess!

Guided & Independent Practice **20+ minutes**	***Observe, prompt, support, enrich*** Continue listening to the podcast as a class and listen for conventions together, pausing as needed.
Check for	**Class discussion:** Reflect back on the mock interview at the

Understanding **10 minutes**	beginning of the class and their practice podcast on the topic of passwords. Why might it be important to plan when and where conventions will be used?
Closure	Great writers plan greatly! We'll be creating scripts for our own Podcasts moving forward. Share some appreciation for your students who were engaged and listening for this intended purpose of planning.
Resources	Resources for the Educator
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ✔ ❏ Checklist ❏ Conferencing/conversations ✔ ❏ Work samples/products ✔ ❏ Check-ins *As Learning:* ❏ Rubric ❏ Success criteria ❏ Self-reflection ❏ Other *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ❏ Other product
Notes	

Lesson 3: Listening for More (Information Verification)

Lesson Plan for Parent(s)/Guardian(s)

The concept of "truth" has never been more unclear than it is today. Before the rise of the Internet, people consumed news from mainstream media outlets that, for the most part, had reputations for credible and honest reporting. Now, people have the ability to easily create and share content, which leads to the increased potential to share fake or misleading content that's uninformed, or possibly biased, in nature.

In today's lesson, students will be learning how to critically assess what they see on the Internet and in the media, in order to verify if what they're consuming is true.

Hook **10 minutes**	*Greet students* *Great time to check in about well-being* *Engage prior knowledge, reminder of the last lesson* Now that students can listen for conventions (Lesson 2), you'll be sharing tools for consuming information, and detecting whether or not the information is true. Have your students heard the term "fake news" before? If not, lead a class discussion and see what they already know about fake news; the spread of online lies; and the importance of checking that what you see, hear or read online is, in fact, true. **Sample conversation starter:** *"Fake news" is a common phrase these days, especially for teens.* Fake news often refers to false or misleading information presented as real, informed news - also known as misinformation or disinformation (definitions provided below). It's hard to say why misinformation, disinformation or false content is created, or what the creator's intentions were when they shared it. Often, the goal is to prompt an extreme reaction, such as anger or excitement. Sometimes, it's to change readers' beliefs about a certain topic; to make money by selling a product or idea; or it originates from advertising companies. On the other hand, it could've been a genuine mistake – authors, bloggers or journalists could've forgotten to check the facts, or honestly believed they had the correct information. **Sample definition:** ● **Misinformation:** False or incorrect information that is shared with others, regardless of whether the intent was to mislead others or not. ● **Disinformation:** The deliberate creation and/or sharing of false information in order to deceive, or cause disruption or disorder. **Class discussion:** Can you think of any recent examples of fake news being shared online? How about on social media? How did you know whether what you were seeing or reading was real or fake?

| Learning Goals & Success Criteria

5 minutes | Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this.
	❏ I can use critical thinking skills to recognize false information that's presented in the media.
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding.

Notes for Accommodations go here (supplementary materials)
- *Content*
- *Process*
- *Learning environment*
- *Product*

Implications of Sharing False Information

There can be serious implications or consequences for sharing false information, misinformation or disinformation online, including:

- **Damage to credibility:** You may lose personal or professional credibility if it becomes clear that you lack the skill to detect misinformation or verify the authenticity of content before sharing it.
- **Compromised reputation:** If you share controversial or offensive content, people may feel that you share the same opinions and views.
- **Academic penalty:** Quoting or citing incorrect information may result in loss of marks and/or poor grades.
- **Loss of employment:** Believing mistaken information can lead to poor decisions; and if that information is controversial or hateful, it may damage your professional reputation, result in job loss, or become a barrier to employment.
- **Negative impact on self-esteem:** Constantly seeing curated social media posts can make you feel inadequate about your own life when you're really only seeing the glorified version the creator wants you to see.

Social Media and Falsehoods*
*Content not in the Lesson 3 handout, to be discussed as a class.

As a continuation of the last point in the implications section, discuss the role social media plays in the spreading of misinformation.

Social media has many upsides, but it also has some downsides, including being used to spread lies and rumours, and create falsehoods that exaggerate people's influence and lifestyle. If your students have social media profiles, it's important for them to understand that: |

- The number of friends, followers or subscribers someone has can give the impression that this person is more popular, or has more "influence", than they really do.
- Filters are commonly used on social media; some are easy to recognize, while others are hard to spot, and make people appear more attractive or flawless.
- Social media content can be designed to display whatever self-image the author wants others to see, creating the illusion that they have a more perfect/exciting life than they truly do.
- Social media can be used to create and spread rumours at a very fast rate; and the number of posts and shares that contain a rumour can make it appear to be true when it is, in fact, a lie.

Fact-checking 101

Fact-checking and online research are important and practical skills that translate to many areas of students' personal, academic and professional lives.

- Is this too good, or too bad, to be true?

- Does this reinforce stereotypes about people or groups?

- Does it seem to be telling me what I want to hear, or what I already believe or feel?

- Does the body of the story match the headline?

- When was the story published? Is it new?

- If it's a few years old, why is it circulating now?

- Does the story have a named writer or producer?

- Have I heard of the organization that published it before?

- Does this organization have reporters and writers who can be found online or on social media? Do their names or bios appear on the organization's website?

- What is the domain name (or web address) of the website?

- Have I heard of it before? Can I look it up?

- Does it sound like the address of a similar website with a different ending?

- Can I find another source that confirms this information? Can I find one that counters it?

	Important note: Advise students that, if they discover misinformation or false information being shared online, they should "check it, not spread it!" Ask them to consider reporting the fake news to the social media or website platform on which it was found.
Guided & Independent Practice **20 minutes**	***Observe, prompt, support, enrich*** Ask students to find one article online, and decide whether it's true or a lie. Remind students to use the Boolean search operators from Lesson 1, to help them effectively use the Internet for research and browsing.
Check for Understanding **10 minutes**	***Observations, formative assessment*** Have students present their site, and their reasons for believing it's credible or fake, in small groups or as a class.
Closure	***Review, wrap-up, discussion, appreciations***
Resources	Resources for the Educator
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ✔ ❏ Work samples/products ❏ Check-ins *As Learning:* ❏ Rubric ❏ Success criteria ✔ ❏ Self-reflection ❏ Other *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ❏ Other product
Notes	

Lesson 4: YOU: The Podcaster. Managing Your Digital Footprint

Lesson Plan for Parent(s)/Guardian(s)

Today, students will be learning about the impact their Digital Footprint (online image) has on their personal and professional reputations. This lesson will serve as an introduction to the responsibility of representing themselves, their family, and their school community and community-at-large. Students will also explore the impact their Digital Footprint has when observed by decision-makers in their lives, such as potential employers, sports scouts, talent agents and school admissions officers.

| Hook

10 minutes | *Greet students*
Great time to check in about well-being

Engage prior knowledge by asking: What do you think we mean when we say Digital Footprint?

Suggested definitions:

- **Digital Footprint:** Your online image or reputation; it's who you appear to be and how people view you based on your actions using connected devices; everything you post, comment on and share online, as well as what is shared and said about you.
- **Online Image:** A mental picture or public perception of who you are and the characteristics that you represent, especially through media.

Class discussion: What do you think contributes to your Digital Footprint? If someone were to search your name, what would they find?

Suggested examples or responses:
- Content published or posted online (e.g., blogs, photos or status updates).
- Social media or video game accounts.
- Subscriptions to content (e.g., YouTube channels).
- Reviews/ratings of companies, services or experiences (e.g., giving a restaurant you recently visited a review).
- Connections and online communities; individuals or groups you're associated with are a reflection of who you are (e.g., you may be/appear to be guilty by association).

Give students a few minutes to write or draw their responses to the *What contributes to your digital footprint?* section of their Lesson 4 handout, or assign as homework. Together as a class, use the responses to make a visual anchor chart to record answers online (virtual learning environments) or on chart paper (in-class learning environments). |

| Learning Goals & Success Criteria

5 minutes	Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this. ❏ I know the importance of having a positive Digital Footprint ❏ I understand the consequences of an unhygienic Digital Footprint
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. ***Notes for Accommodations go here (supplementary materials)*** ● *Content* ● *Process* ● *Learning environment* ● *Product* Discuss with your students the types of online posts that they should avoid, as these may damage their reputation. With a lot of their lives being documented on almost a daily basis – by friends, family and themselves – it's important to ensure that their online reputation is as positive as their offline one. Have students fill in the blanks in the *Online posts that may damage your brand* section of their Lesson 4 handouts as you discuss. **Suggested examples or responses:** ● Provocative or inappropriate messages, photographs, videos or information. ● References to drinking, using drugs or any sort of criminal behaviour. ● Discriminatory posts related to race, gender, sexual orientation or religion. ● Harmful or hurtful words to talk about yourself or others. ● False information related to certifications and qualifications. ● Confidential or sensitive information about yourself or others. ● News from an unreliable source and, therefore, potentially sharing false information. ● Posting too frequently may also be viewed negatively. Remind students that everything they say and do online can easily become visible, even if their privacy settings are turned on and set to the highest security setting. Their content can be shared, screen captured or printed even without their knowledge. Content such as conversations through direct messages (DMs) or interactions with content (comments, shares and reactions) can all become part of their Digital Footprint, so remember to always take care with what they share.

Guided & Independent Practice **20 minutes**	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. ***Notes for Accommodations go here (supplementary materials)*** ● *Content* ● *Process* ● *Learning environment* ● *Product*
Check for Understanding **10 minutes**	***Observe, prompt, support, enrich*** Have students answer the following reflection questions to check for their understanding on the topics covered in Lesson 4: When was the last time you scrolled back to the early days of your social media profiles? What was your first Tweet or Facebook status update? Is it something you'd be embarrassed about if a teacher or employer saw it? **Optional Extension:** Have students conduct a scavenger hunt on their various online profiles, or Google themselves, to see if they can find the following: ● 1 post demonstrating kindness, understanding and/or helpfulness ● 1 post showcasing an achievement or positive contribution of another person/organization ● 1 post they shared from a peer that includes positive comments
Closure	*Review, wrap-up, discussion, appreciations* Collect reflections or share responses as a class.
Resources	Resources for the Educator
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ❏ Work samples/products ❏ Check-ins ✔ *As Learning:* ❏ Rubric ❏ Success criteria ✔ ❏ Self-reflection ❏ Other *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ❏ Written Reflection ✔

Notes	

Lesson 5: Themes in Cybersecurity

Lesson Plan for Parent(s)/Guardian(s)

Today, students will be choosing the topic for their Podcast and begin their inquiry into the topic. Students will develop guiding questions for their Podcasts, and may ask those questions during their interviews or research process.

Hook 10 minutes	*Greet students* *Great time to check in about well-being* *Engage prior knowledge*
Learning Goals & Success Criteria 5 minutes	Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this. ❏ I can develop three guiding questions to guide the research for my Podcast
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. ***Notes for Accommodations go here (supplementary materials)*** ● *Content* ● *Process* ● *Learning environment* ● *Product* Individually, or in small groups, guide students through a brainstorming session to choose the main topic for their Podcasts. Use the overarching themes from the *Getting Started* section of this unit plan and/or the list from the Lesson 1 as a guide: ❏ I keep my passwords private and protected from others ❏ I use a different and unique password for each account I have ❏ I know someone whose device or account has been hacked ❏ My social media accounts are set to private ❏ There is no such thing as a "Delete" button for the Internet; once it's there – it's always there. ❏ If I suspected someone was being cyberbullied, I know how to help them ❏ I understand the difference between (cyber)bullying and conflict ❏ I only interact, chat or follow/add friends online that I know in real life ❏ I get my news from trusted and reliable online sources ❏ I can effectively use a search engine (i.e., Google) to get information ❏ I trust my gut when using technology ❏ I know how to turn off my location settings on my devices. Choose one topic as a class, and model how it can be turned into three sub-questions or sub-themes. **Sample topic:** I can code. **Sample Questions:** 1. What does coding mean and what is it used for? 2. How can someone learn how to code?

	3. What are examples of coding languages?
Guided & Independent Practice **20 minutes**	***Observe, prompt, support, enrich*** Give students time, and support their ideas by asking them questions or pushing them to think more critically.
Check for Understanding **10 minutes**	***Observations, formative assessment*** Once a student has chosen a topic and three sub-questions, they've achieved the learning goal. It will take some time to develop the answers and be ready to draft their Podcast. This can be done at home as homework, or in school or the remote learning classroom.
Closure	***Review, wrap-up, discussion, appreciations*** Share some examples from the class to further model for students who have yet to choose their Podcast topic.
Resources	Resources for the Educator Possible extension or resource for remote learning environments: Host a brainstorming session on Flipgrid: www.flipgrid.com
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ✔ ❏ Work samples/products ✔ ❏ Check-ins ✔ *As Learning:* ❏ Rubric ❏ Success criteria ❏ Self-reflection ❏ Other *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ❏ Other product
Notes	

Lesson 6: Drafting the Podcast

Lesson Plan for Parent(s)/Guardian(s)

Today, students will begin drafting the script for their Podcasts. They'll use their information verification skills to find trustworthy sources about their chosen theme in cybersecurity.

Hook **10 minutes**	*Greet students* *Great time to check in about well-being* *Engage prior knowledge*
Learning Goals & Success Criteria **5 minutes**	Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this. ❏ I can use critical thinking skills to recognize false information that's presented in the media ❏ I include conventions of a podcast in my planning.
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. ***Notes for Accommodations go here (supplementary materials)*** ● *Content* ● *Process* ● *Learning environment* ● *Product* Students will be using their Graphic Organizers from Lesson 5, and the activities from the entire unit, to start writing the script for their own Podcasts. **Using their completed Planning Your Podcast:** Graphic Organizer from Lesson 5 as their starting point, students will begin drafting their scripts. They can use pen and paper, or a computer, depending on accessibility and learning delivery (in-class or remote learning). Brainstorm how students will go about writing their Podcast. A great way to start is with the introduction: introducing *you* the podcaster, and what you'll be discussing in today's podcast. Consider showing the students the rubric they'll be assessed with, or use co-created Success Criteria to assess the Podcast.
Guided & Independent Practice **20 minutes**	***Observe, prompt, support, enrich*** While students are working, assist those experiencing writer's block. For most students, transferring all they've learned into their very own script is a challenging task to start.
Check for Understanding **10 minutes**	***Observations, formative assessment*** By reading a student's introduction, you'll get a sense of their grasp on the learning goals.
Closure	***Review, wrap-up, discussion, appreciations*** Tell students the due date for their Podcasts.

Resources	Resources for the Educator
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ✔ ❏ Work samples/products ✔ ❏ Check-ins ✔ *As Learning:* ❏ Rubric ✔ ❏ Success criteria ❏ Other: Self-reflection *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ✔ ❏ Other product
Notes	

Lesson 7: Recording the Podcast*

No handout required for Lesson 7.

Lesson Plan for Parent(s)/Guardian(s)

Using a recording tool of their choice, students will be recording their Podcasts. They will be assessed on their knowledge of their topic; their planning of the final product; their use of critical thinking skills; and their ability to record an effective Podcast.

Hook **10 minutes**	*Greet students* *Great time to check in about well-being* *Engage prior knowledge* The drafts are all complete, and we're talking about recording the Podcasts.
Learning Goals & Success Criteria **5 minutes**	Share learning goals for purposeful learning. Success Criteria let students know what they'll be able to do when they've learned this. Remind students of some key elements to remember while recording. It's important that they don't speak too quickly, or it will be difficult to hear/understand what they're saying. They should be recording in a quiet space, to limit ambient sound. And they must be respectful to their peers who are also recording.
Input & Modelling	Teach and show the content and skills students need to know to be successful. Model with examples that clarify understanding. ***Notes for Accommodations go here (supplementary materials)*** ● *Content* ● *Process* ● *Learning environment* ● *Product* Using an audio recording tool of their choice (e.g., Voice Memos app for iPhone, or Voice Recorder app for Android) or a free web-based recording tool such as Vocaroo (access here: www.vocaroo.com), students will be recording their Podcasts.
Guided & Independent Practice **20 minutes**	***Observe, prompt, support, enrich*** Help students share materials, find or determine quiet spaces in-class or at home, depending on learning delivery (in-class or remote learning); and remind them to slow down if they're rushing. If time is available, provide descriptive feedback in real time. **Important note: For the privacy and safety of all students, it's recommended that the recorded Podcasts should be for internal, classroom use only, and not published publicly online or on the applications used to record the Podcast.**
Check for Understanding **10 minutes**	***Observations, formative assessment*** Once the Podcasts are complete, they can be sent to the teacher, or presented to the class, for assessment. This is up to the discretion of the teacher.
Closure	***Review, wrap-up, discussion, appreciations***

Resources	Resources for the Educator
Assessment	*For Learning:* ❏ Observation ✔ ❏ Anecdotal notes ❏ Checklist ❏ Conferencing/conversations ❏ Work samples/products ✔ ❏ Check-ins *As Learning:* ❏ Rubric ✔ ❏ Success criteria ❏ Self-reflection ❏ Other *Of Learning:* ❏ Quiz ❏ Test ❏ Presentation ❏ Assignment ✔ ❏ Other product
Notes	