



Be a Cyber-Safe Owl!

Teaching primary and elementary school students about cybersecurity issues and ways to better protect themselves online



Level 1



Introduction

Level 1



Welcome to the first level of this collection of six cybersecurity lessons from Brilliant Labs. This guide is aimed at teachers from kindergarten to grade 6 and offers six lessons to help you teach the dangers, pitfalls, and tips for learning to protect themselves on the internet. There is no one better than you to decide when and how you will integrate these lessons into your programs and the amount of time you can devote to these lessons with your students, keeping in mind their age and interests.

The six lessons are visual supports you can use in class with your students. We'll make sure to suggest areas for discussion and ideas for activities to help explain what you have presented. No need to have already received cybersecurity training or have extensive knowledge in the field. Everything is ready for you! The most important thing is to take time in class with your students to discuss it, clarify certain concepts if necessary, and learn easy tips to better protect themselves on the web. This first level in cybersecurity includes the following lessons;

- *Lesson #1: It is essential to learn not to fall into the traps of cybersecurity!*
- *Lesson #2: Always use a strong password.*
- *Lesson #3: Phishing, don't get caught like a fish!*
- *Lesson #4: Malware, you need to learn what they are and what they do!*
- *Lesson #5: Protect your privacy; don't become an open book!*
- *Lesson #6: Social networks: You need to protect yourself!*

A second level in cybersecurity is also available if you wish to continue cybersecurity learning with your students. This collection contains the following six lessons;

- *Lesson #7: Social engineering is another type of cybersecurity trap!*
- *Lesson #8: Understanding the risks associated with the Internet of Things (IoT) is essential!*
- *Lesson #9: Artificial intelligence (AI), we must be careful of hallucinations!*
- *Lesson #10: Smart cities can offer benefits, but also risks.*
- *Lesson #11: There are many careers to discover in cybersecurity!*
- *Lesson #12: With cybersecurity, one must remain vigilant and continue learning!*





Introduction



We suggest you integrate this content into your courses and connect with the students and their families. We suggest you follow the established order for greater fluidity when moving from one lesson to another. In addition to advice for leading presentations, you will find in this collection questions for discussion, ideas for additional activities and websites to go further that you can integrate into the classroom.

Use visual aids for each lesson, preferably on a large screen, one slide at a time, and take a moment to discuss with your students. **Choose quality over quantity!**

We often hear that cybersecurity is everyone's business. Schools and teachers also have a significant role to play in educating about cybersecurity. We hope you will be willing to venture into cybersecurity with us with your students! We are sure you will also learn many new things to help you at work and in your everyday life. Even better, it is your students who will be able to learn essential things to protect themselves better online and when they use computer equipment or their cell phones.



17 United Nations Sustainable Development Goals (SDGs)

In September 2015, the 193 United Nations General Assembly member states unanimously adopted the resolution "Transforming our world: The 2030 Agenda for Sustainable Development". Also known as the 2030 Agenda, the resolution established the 17 Sustainable Development Goals (SDGs), which aim to achieve sustainable development in its economic, social and environmental dimensions globally by 2030. The SDGs and the 169 related targets aim, in particular, to eliminate poverty in the global economy, achieve gender equality, promote economic growth, protect the environment and create effective, accountable and transparent institutions.



Introduction



At Brilliant Labs, we must link all our initiatives to the 17 SDGs. With this collection of cybersecurity lessons, the covered SDGs are as follows: #4, 8, 9, 10, 11, 12, 16 & 17.



We therefore encourage you to include the 17 SDGs in the planning of all your daily learning activities and to make them known to all your students as well as your educational community.

Exciting discoveries have been made in the world of cybersecurity! This is an excellent topic to explore with your students!

Please share your discoveries and success stories with us through new lessons learned; and your concerns, too, should you have any.



Be a Cyber-Safe Owl!

Teaching elementary school students about cybersecurity issues and better ways to protect themselves online

Be a Cyber-Safe Owl!

Lesson #1

Learn about cybersecurity and how to protect yourself

It is essential to learn not to fall into the traps of cybersecurity.



Level 1



Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself for primary and elementary students

Always use a strong password.



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself for primary and elementary students

Phishing, don't get caught like a fish.



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself for primary and elementary students

Malware, learn what they are and what they do.



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself for primary and elementary students

Protect your privacy; don't become an open book.



Be a Cyber-Safe Owl!

Lesson #6

Learn to protect yourself for primary and elementary students

Social networks: you need to protect yourself.



Be a Cyber-Safe Owl!

Teaching elementary school students about cybersecurity issues and better ways to protect themselves online

Level 2

Be a Cyber-Safe Owl!

Lesson #7

Learn to protect yourself for primary and elementary students

Social engineering is another type of cybersecurity trap.



Be a Cyber-Safe Owl!

Lesson #8

Learn to protect yourself for primary and elementary students

Understanding the risks associated with the Internet of Things (IoT) is essential.



Be a Cyber-Safe Owl!

Lesson #9

Learn to protect yourself for primary and elementary students

Artificial intelligence (AI), we must be careful of hallucinations.



Be a Cyber-Safe Owl!

Lesson #10

Learn to protect yourself for primary and elementary students

Smart cities can offer benefits but also risks.



Be a Cyber-Safe Owl!

Lesson #11

Learn to protect yourself for primary and elementary students

There are many careers to discover in cybersecurity.



Be a Cyber-Safe Owl!

Lesson #12

Learning to protect yourself for primary and elementary students

12 Cybersecurity tips to protect yourself better





Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
L'ÉCOLE



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Objective of this lesson:

In lesson #1, students will have the chance to discuss with you the importance of learning to protect themselves when using devices such as computers, video game consoles or cell phones.

Proposed approach:

We suggest you take some time during the day to review the different slides from Lesson #1 and discuss with your students the pitfalls of cybersecurity. You don't need to have extensive knowledge in the field. Using the slides from lesson #1 of the "**Be a Cyber-Safe Owl!**" program as a teaching aid, you can easily present new concepts and essential words (jargon) from cybersecurity. The most important thing is to take some time to have this unique and crucial discussion with your students.

Questions for discussion: Here are some examples of questions that might be useful during or after watching the lesson. Please don't hesitate to modify them or add your questions if necessary;

- **Students in grades K-3:**

- Do you often use equipment like computers or cell phones?
- What do you do when you use these devices?
- Are there any rules you must follow?
- Do you go online? If so, what sites do you visit? How will your behaviour change after learning from this lesson?

- **Students in grades 4 to 6:**

- Do you regularly use computer equipment? At school, at home?
- Have you ever encountered any problems using this computer equipment?
- Are there any essential things to remember when using computer equipment?
- Why do you think learning how to protect yourself online is essential?
- What could be good examples of internet traps?
- Why do you think people set traps like this?



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
creativity



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
creativity



Slide 1;

The objective of lesson #1 is to understand the importance of learning to protect yourself well and explain how to avoid falling into traps.

 **Do you like
to use the
Internet?
Why?**

Slide 2;

Take a moment to discuss and make a list of reasons students like to use the Internet. You can even make a list on the board.

**Why do we
need to
protect
ourselves
when we go
online?**



Slides 3;

The purpose of this question is to see what students already know about cybersecurity and if they can transfer from previous experiences.

**The internet is safe
when the people who
use it do it the right
way!**

Slide 4;

This is the first important thing to remember for your students. The Internet is safe when people who use it do it the right way.



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
Learners



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Protect ourselves?



From whom?
From what?

Slide 5;

Generally, hackers on the web try to steal personal information to resell it. They can also block your devices and demand a ransom to regain access to your computer equipment.

Cybersecurity hackers



Hackers like to set
traps for us.

They want our
information to sell it,
make money and also
cause harm!

Slide 6;

Hackers set traps and hope that people will fall for them. Typically, the information collected is sold to other hackers, who can use it for illegal activities, extortion, or other purposes.

Vulnerabilities

These are traps used by Hackers

Examples of vulnerabilities are:

- The use of weak passwords.
- Sharing your personal information.
- Falling on traps set by hackers.



Slide 7;

Hackers set traps based on vulnerabilities such as weak passwords, scams, and the theft of personal information.

**This is why
learning how to
protect yourself
when using the
internet is super
important.**



Slides 8;

This is an important thing to remember for your students: We must learn to protect ourselves!



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
Créatifs



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Lesson # 1

It is essential to
learn not to fall
into the traps of
cybersecurity.



Slide 9;

This is the lesson to be learned;
It is essential not to fall into the traps of
cybersecurity!

Be a Cyber-Safe Owl!



Slides 10;

“Be a Cyber-Safe Owl!” refers to owls, elegant birds
with many qualities, including intuition,
intelligence, and wisdom.

Be a Cyber-Safe Owl!

Next lesson :
Passwords

Slide 11;

Lesson #2 will focus on passwords and knowing
tips to learn how to better protect yourself.



Slides 12;

Brilliant Labs is a non-profit organization that
helps schools develop creativity and innovation.

Their website is; <https://brilliantlabs.ca/>



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
Labs



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Useful Websites for Lesson #1:

Warning: We use hyperlinks from various sources on the internet. Some advertisements may be present. Before you use a hyperlink in class, you must take a moment to privately verify that it is good for classroom use with your students. We have checked it before suggesting it to you, but the content may have been redirected, modified, or removed over time. It is even possible that some advertisements have been altered and may make you uncomfortable. Ultimately, it is up to you to decide whether you want to use a hyperlink in the classroom with your students. We prefer to let you know.

- | **Brilliant Labs** | Official link of the organization | Website ; <https://www.brilliantlabs.ca/>
- | **Brilliant Labs** | **Links for cybersecurity Education** | Website ; <https://www.brilliantlabs.ca/cybersecurity-resources>
- **MediaSmarts** | The Cybersecurity section of MediaSmarts | Website ; <https://mediaskills.ca/digital-literacy-and-media-education/digital-issues/cybersecurity>
- | **MediaSmarts** | **Cyber Security Section** | Website; <https://mediasmarts.ca/digital-media-literacy/digital-issues/cyber-security>
- | **Government of Canada** | **Get Cyber Safe** | Website; <https://www.getcybersafe.gc.ca/en>
- | **Government of Canada** | **Get Cyber Smart** | **Helping your child stay safe online** | YouTube Video; <https://youtu.be/HrllGKoh0IA>
- | **Government of Canada** | **Canadian Centre for Cyber Security** | **Glossary** | Website; <https://cyber.gc.ca/en/glossary>
- | **Government of Ontario** | **Information and Privacy Commission of Ontario** | **Privacy Tips For Kids** | YouTube Video; https://youtu.be/sSX-h7-_YTA
- | **Google (Private company)** | **Google for Education** | **Teach students internet safety and privacy** | YouTube Video; <https://youtu.be/25G4tLVH1JE>
- | **Kids in the know** | Website; <https://www.kidsintheknow.ca/app/en/about>
- | **NeedHelpNow.ca** | Website; <https://needhelpnow.ca/app/en/index>
- | **Zoe & Molly Online** | Website; <https://zoeandmolly.ca/app/en/>
- | **Canadian Centre for Child Protection** | Website; <https://protectchildren.ca/en/>
- | **Canadian Centre for Child Protection** | **Be Smart, Strong & Safe** | Website; <https://www.intelligence-assurance-prudence.ca/app/en/home>



Be a Cyber-Safe Owl!

Lesson # 1

Learn about cybersecurity
and how to protect yourself

It is essential to learn not to fall
into the traps of cybersecurity.

LABS LABOS
Learners' Activities Book of Science



Lesson #1: It is essential to learn not to fall into the traps of cybersecurity.



Additional activities:

These can be modified and adapted depending on your students' ages and interests. The important thing here is to reinforce things learned in the lesson.

- Conduct a short survey on the use of computer equipment.
- Prepare posters with advice.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find statistics on recognized sites.
- Invent a story with a cybersecurity adventure.
- Give a brief presentation to another class about what you have learned about the importance of learning to protect yourself when using computers, game consoles and cell phones.
- Invent a cybersecurity quiz game.
- Create a short video to teach how to stay safe online.
- You can visit a class at your school and explain what you learned from this lesson.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Use our “Cyber-Safe Owl mascot” to create and solve math problems or to write stories about detectives going on missions.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Conduct research on owls to uncover the reasons behind their remarkable intuition, intelligence, and wisdom.



Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Objective of this lesson:

In lesson #2, students will understand the importance of strong passwords and learn how to create them to protect themselves better.

Proposed approach:

We suggest you take some time during the day to review the different slides from Lesson #2 and discuss with your students the pitfalls of cybersecurity. You don't need to have extensive knowledge in the field. Using the slides from lesson #2 of the "**Be a Cyber-Safe Owl!**" program as a teaching aid, you can easily present new concepts and essential words (jargon) from cybersecurity. The most important thing is to take some time to have this unique and crucial discussion with your students.

Questions for discussion:

Here are some examples of questions that might be useful during or after watching the lesson. Please don't hesitate to modify them or add your questions if necessary;

- **Students in grades K-3:**

- What is a password, and what is it for?
- Do you use passwords? When?
- What is a robust password?
- Why are easy passwords not a good idea?
- Besides your parents, should you share your passwords with other people?

- **Students in grades 4 to 6:**

- Can you explain the difference between an easy password and a hard password?
- Why is it essential to use a robust password?
- How can you create a robust password?
- How do hackers know our passwords?
- What are some other good tips for protecting yourself when using computer tools?
- Is it a good idea to share your passwords with friends or strangers? Discuss.



Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Slide 1;

The objective of lesson #2 is to help you understand the importance of always using a strong password to better protect yourself from hackers.



Do we have to
use passwords
on the internet?

Why?

Slide 2;

Take a moment to discuss and make a list of reasons why we use passwords when we surf the Internet. You can even make a list on the board.

Passwords
keep our
information
and computing
devices secure.



Slides 3;

This is why we use passwords... They keep our information and computing devices secure.

They are like a key
and a padlock!

The key is like a
password for accessing the internet
or opening online accounts.



Slide 4;

The metaphor of using a password like a key to open a lock may help to understand the importance of not giving it to others.



Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Easy Passwords



- A password with only a few letters or numbers.
- Contains simple words like princess or potato.
- Does not contain a mixture of letters and numbers
- Contains 8 characters or less

Slide 5;

A password is considered easy if:

- It only has a few letters or a few numbers;
- It contains simple words like princess or potato;
- It does not contain a mixture of letters and numbers;
- It includes eight characters or less.

Examples of easy passwords;

123456
password
QWERTY
admin
starwars



Slide 6;

These passwords are too easy. They are not safe to use.

Strong Passwords



Strong passwords contain multiple letters, numbers, and special characters like !@#%\$?

For example :

- E#2Qas!H9?9
- M1S23*W!HH23
- 1Ye3#C**a!A

Slide 7;

Strong passwords contain multiple letters, numbers, and special characters like !@#%\$?

Cool tricks...

Hackers are experts at decoding passwords!

- Don't use your old passwords.
- Mix uppercase letters and lowercase letters.
- Add in some numbers.
- Use symbols like: !@#%\$?&*



Slides 8;

Hackers are experts at decoding passwords!

Please don't use your old passwords.

- Mix uppercase letters and lowercase letters
- Add some numbers
- Use symbols like: !@#%\$?&*



Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.

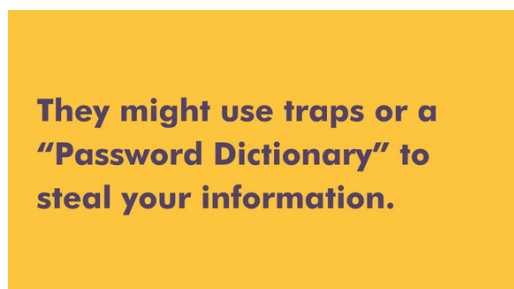


Lesson #2: Always use a strong password.



Slide 9;

Before moving on to the next slide, take a moment here and give students a chance to find some answers.



Slides 10;

Hackers can use traps to get you to send them your information, or they can also use password dictionaries. Often, these traps come to us via email.



Slide 11;

Two other ways to protect yourself are;

- Use of 2-factor authentication when possible;
- Using password management software.



Slides 12;

This is the lesson to be learned;
Always use a strong password!



Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Be a Cyber-Safe Owl!



Slide 13;

“Be a Cyber-Safe Owl!” refers to owls, elegant birds with many qualities, including intuition, intelligence, and wisdom.

Be a Cyber-Safe Owl!

Next lesson :
Phishing

Slides 14;

Lesson #3 will focus on phishing and the best ways to protect yourself from it.



Slides 15;

Brilliant Labs is a non-profit organization that helps schools develop creativity and innovation.

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Be a Cyber-Safe Owl!

Lesson #2

Learn to protect yourself
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elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Useful Websites for Lesson #2;

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- | **MediaSmarts** | **Cyber Security Section** | Website; <https://mediasmarts.ca/digital-media-literacy/digital-issues/cyber-security>
- | **Royal Canadian Mounted Police** | **Top 10 Cyber Crime Prevention Tips** | Website;
<https://www.rcmp-grc.gc.ca/to-ot/tis-set/cyber-tips-conseils-eng.htm>
- | **Government of Canada** | **Get Cyber Safe** | **How strong is your password?** | Website;
<https://www.getcybersafe.gc.ca/en/blogs/how-strong-your-password-five-ways-evaluate>
- | **Government of Canada** | **Communications Security Establishment** | **Get Cyber Safe** | **Creating a strong password** | YouTube Video; <https://youtu.be/xdflBHllt4o>
- | **Government of Canada** | **Safety in Canada** | **How to Create a Strong Password** | YouTube video; <https://youtu.be/aEmF3lylvr4>
- | **CBC News Corporation** | **Online password “123456” more popular than ever and easy to crack** | News Article; <https://www.cbc.ca/news/business/nordpass-list-of-most-common-and-worst-passwords-1.5807089>
- | **dCode** | **Caesar Cipher** | Website; <https://www.dcode.fr/caesar-cipher>
- | **Fortra’s TerraNova Security (Private company)** | **How to Create a Strong Password in 7 Easy Steps?** | Website; <https://terranovasecurity.com/how-to-create-a-strong-password-in-7-easy-steps/>



Lesson #2

Learn to protect yourself
for primary and
elementary students

Always use a strong password.



Lesson #2: Always use a strong password.



Additional activities;

These can be modified and adapted depending on your students' ages and interests. The important thing here is to reinforce things learned in the lesson.

- Conduct a short survey on the use of passwords.
- Prepare posters with tips on using passwords effectively.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find statistics on recognized sites.
- Create a story with a cybersecurity adventure.
- Could you give a brief presentation to another class about what you have learned about passwords?
- Invent a cybersecurity and password quiz.
- Create a short video to teach how to create a strong password.
- You can visit a class at your school and explain what you learned from this lesson.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Create a small play and perform it with a puppet theatre.
- Use our "Cyber-Safe Owl mascot" to create and solve math problems or to write stories about detectives going on missions.
- Take a moment to research and see what the "Caesar Cipher" is. This is a simple example of cryptography. Ask students to try writing a short sentence independently using this tactic. Subsequently, the students in the class should be asked to exchange their messages and try to decode them without knowing the "Caesar Cipher" used. Finally, try again, giving the correct "Caesar Cipher" to encrypt the message. What are the advantages of cryptography?



Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Objective of this lesson;

In lesson #3, students will understand cybersecurity phishing and the best ways to learn how to protect oneself.

Proposed approach

We suggest you take some time during the day to review the different slides from Lesson #3 and discuss with your students the pitfalls of cybersecurity. You don't need to have extensive knowledge in the field. Using the slides from lesson #3, the “**Be a Cyber-Safe Owl!**” program, as a teaching aid, you can easily present new concepts and essential words (jargon) from cybersecurity. The most important thing is to take some time to have this unique and crucial discussion with your students.

Questions for discussion: Here are some examples of questions that might be useful during or after watching the lesson. Please don't hesitate to modify them or add your questions if necessary;

- **Students in grades K-3:**

- What is phishing?
- Why do you think cyber hackers set traps like this?
- Is it essential to talk to an adult if we are unsure if it is a trap?
- What could happen if you fall into one of these hacker traps?

- **Students in grades 4 to 6:**

- Do you use email to send or receive messages?
- How would you explain to a friend what phishing is?
- What are the risks if you fall into a trap set by cyber-hackers?
- What could be the consequences?
- If you think you have either a fraudulent email or a phishing trap, what are the best things to do? Why is this important?
- What are some tips for spotting a fraudulent email that could be a trap?



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Slide 1;

The objective of lesson #3 is to understand how phishing works and avoid falling into this type of trap used by hackers.



Slide 2;

Please take a moment to discuss and make a list of possible answers. You can even make a list on the board. In English, we use the word "Phishing."



Slides 3;

Phishing is a tactic to trap people. It refers to fishing and hoping to catch people to steal their confidential and personal information.



Slide 4;

Hackers are trying to get your information. It's like going on a fishing trip. Occasionally, it works, and you catch fish; other times, it doesn't.



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

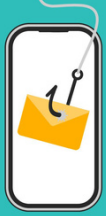
LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Phishing



Hackers mainly use emails, but they can also send messages on social media or text messages on cell phones.

Slide 5;

Hackers mainly use emails but can also be messages on social networks or text messages on cell phones.

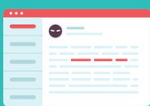
Examples...



Slide 6;

Take a moment to look at the two examples in the slides. Do they represent questionable messages?

How it works



You'll typically get an official message prompting you to click a link, often with a sense of urgency implying consequences if you delay clicking.

Slide 7;

We usually receive an official message asking us to click on a link. We often use a sense of urgency as if we might be in trouble if we wait to click on it quickly.

It's a trap!

Watch out for misleading messages, even if they seem real.

If you're not careful and fall into the trap, programs could get installed on your devices, or worse, they might stop working altogether.



Slides 8;

These are misleading messages, even if they seem real. Be careful. If you fall into the trap, programs may automatically install on your devices or, worse yet, stop working.



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Cool tricks to know...

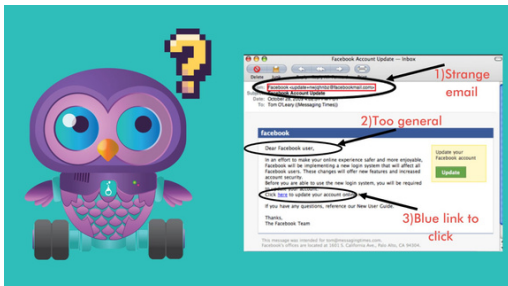
To avoid phishing, you can look for clues like;

- Words misspelled or all in capitals.
- An unknown sender that seems strange.
- A message that asks you to click on a link or respond by sending personal information.
- Eye-catching content and pop-ups in the email.
- A prize to be won or a contest too good to be true!



Slide 9;

You can look for clues like the ones on the slide to avoid phishing.



Slides 10;

You have to be careful with emails because there are clues that can help you recognize the pitfalls. For example, there is always a blue button that you can click.

What should I do when I have spotted a phishing email or message?

Slide 11;

We need to delete this message as soon as possible. You can put it in the trash, report it to the computer network administrator, or talk to an adult.

Just delete it! These messages are worthless. It's okay to wait and not answer. Don't click on the links.

Slides 12;

Deleting these messages is the best solution. Do not click the buttons, as this risks installing viruses or malicious programs.



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Remember...

To handle phishing and fake messages, you can either delete them or report them. Never click on or respond to links in such emails! Clicking could lead to downloading a virus and stealing your information. If you're unsure, ask an adult you trust for help!



Slide 13;

Refrain from clicking on or responding to links in these types of emails! Doing so could download a computer virus and steal your information. Always ask an adult for help if necessary.

Lesson #3

Phishing,
don't get
caught like
a fish.



Slides 14;

This is the lesson to be learned;
Don't get caught and fall into a phishing trap.

Be a Cyber-Safe Owl!



Slides 15;

"Be a Cyber-Safe Owl!" refers to owls, elegant birds with many qualities, including intuition, intelligence, and wisdom.

Be a Cyber-Safe Owl!

Next lesson :
Malware

Slides 16;

Lesson #4 will focus on malware and the best ways to protect against it.



Be Cyber-Safe Owl!

Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.



Lesson #3: Phishing, don't get caught like a fish.



Slide 17;

Brilliant Labs is a non-profit organization that helps schools develop creativity and innovation.

Their website is: <https://brilliantlabs.ca/>

Useful Websites for Lesson #3;

Warning: We use hyperlinks from various sources on the internet. Some advertisements may be present. Before you use a hyperlink in class, you must take a moment to privately verify that it is good for classroom use with your students. We have checked it before suggesting it to you, but the content may have been redirected, modified, or removed over time. It is even possible that some advertisements have been altered and may make you uncomfortable. Ultimately, it is up to you to decide whether you want to use a hyperlink in the classroom with your students. We prefer to let you know.

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- | **MediaSmarts** | **Cyber Security Section** | Website; <https://mediasmarts.ca/digital-media-literacy/digital-issues/cyber-security>
- | **Government of Canada** | **Communications Security Establishment** | **Get Cyber Safe** | **Phishing: Don't take the Bait!** | YouTube Video; <https://youtu.be/y-90nP6fZbY>
- | **Government of Canada** | **Communications Security Establishment** | **Get Cyber Safe** | **Phishing Scams** | YouTube Video; <https://youtu.be/eSn8EFS7Sao>
- | **Government of Ontario** | **Information and Privacy Commission of Ontario** | **Protect Against Phishing** | YouTube Video; <https://youtu.be/3l5NANpEncg>
- | **Google (Private company)** | **Google for Education** | **Teach students to recognize phishing and scams** | YouTube Video; https://youtu.be/R12_y2BhKbE
- | **Fortra's TerraNova Security (Private company)** | **What is Phishing?** | Infographic-PDF File; <https://terrannovasecurity.com/wp-content/uploads/2021/09/What-is-Phishing-EN.pdf>



Lesson #3

Learn to protect yourself
for primary and
elementary students

Phishing, don't get caught
like a fish.

LABS LABOS



Lesson #3: Phishing, don't get caught like a fish.



Additional Activities;

These can be modified and adapted depending on your students' ages and interests. The important thing here is to reinforce what was learned in the lesson.

- Conduct a short survey on cybersecurity in general and measure whether people know much about it.
- Prepare posters with advice on how to recognize a fraudulent email.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find phishing statistics from reputable sites.
- Create a story with a cybersecurity adventure.
- Give a brief presentation to another class about what you have learned about phishing and how to protect yourself.
- Invent a cybersecurity and phishing quiz.
- You could create a short video to teach how to recognize a fraudulent email.
- You can visit a class at your school and explain what you learned from this lesson.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Create a small play and perform it with a puppet theatre.
- Use our "Cyber-Safe Owl mascot" to create and solve math problems or to write stories about detectives going on missions.
- You could write your parents or family a letter explaining the best ways to protect yourself with cybersecurity.
- You could organize a competition with cybersecurity protection slogans.
- Prepare a short protection guide to share with others, family members or community members.



Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.

LABS LABOS



Lesson #4: Malware, you need to learn what they are and what they do.



Objective of this lesson

In lesson #4, students will understand what malware is and the best ways to learn how to protect themselves.

Proposed approach

We suggest you take some time during the day to review the different slides from Lesson #4 and discuss the pitfalls of cybersecurity with your students. You don't need to have extensive knowledge in the field. Using the slides from lesson #4 of the "**Be a Cyber-Safe Owl!**" program as a teaching aid, you can easily present new concepts and essential words (jargon) from cybersecurity. The most important thing is to take some time to have this unique and crucial discussion with your students.

Questions for discussion: Here are some examples of questions that might be useful during or after watching the lesson. Please don't hesitate to modify them or add your questions if necessary.

- **Students in grades K-3:**
 - What is malware?
 - How can cyber-hackers send malware?
 - Is it essential to talk to an adult if we are not sure if it is a trap or not?
 - What could happen if we install malware on our devices?
- **Students in grades 4 to 6:**
 - How would you explain to a friend what malware is?
 - What are the risks if you install malware sent by a cyber-hacker?
 - What could be the consequences?
 - What are some tips for spotting a fraudulent email that could be a trap? What clues can help us?



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.



Lesson #4: Malware, you need to learn what they are and what they do.



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.



Slide 1;

The objective of lesson #4 is to help you better understand malware and how to avoid activating it and putting your computer and cell devices at risk.

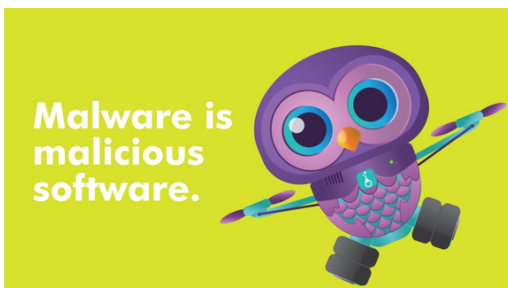
Slide 2;

Ask the students if they know what malware is. You can also use the term “malicious software” or a “hack” to help them.



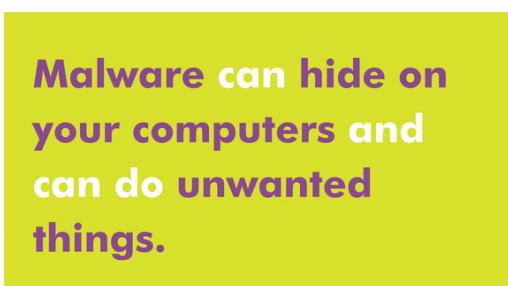
Slides 3;

Malware is a small piece of software (or program) that can cause damage and endanger your computer devices or cell phones. Hackers send you traps, hoping that you will activate them.



Slide 4;

Malware can cause your devices to crash or help hackers carry out other attacks. It is even possible to be spied on through your keyboard or camera.





Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.

LABS LABOS



Lesson #4: Malware, you need to learn what they are and what they do.



How does it work?



Sometimes, hackers try to fool us by making us click on links that install bad computer programs. These links can put bad stuff on our computers, tablets, or phones, which can cause all sorts of problems.

Slide 5;

Malware can be installed via emails when links are clicked or even from USB drives on which programs are automatically installed when inserted into your devices.

How does this get into our devices?



Often, phishing messages are linked to malware.

Slide 6;

Fraudulent emails are the most common way for hackers to send malware. We shouldn't click on links in questionable emails or use a questionable USB key.

Did you know?

Downloading apps from sources other than the official App Store or Google Play Store increases the risk of exposing your device to malware.



Slide 7;

Several malware programs are available almost everywhere on the web. However, App Store or Google Play applications are more secure and subject to excellent monitoring.

Did you know?

There are many types of malware, like...

- Computer viruses
- Adware
- Spyware

Slides 8;

Computer viruses can slow down and damage computer devices. Adware displays unpleasant or inappropriate windows. Spyware can track what you do on your keyboard and even track your web camera.



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.

LABS LABOS



Lesson #4: Malware, you need to learn what they are and what they do.



Computer viruses

- Just like with a human, a virus makes your computer sick.
- Computer viruses are insidious and hide behind other programs on your computer!



Slide 9;

Often, users do not even know that they have installed malware. Some malware can block all your computer access and demand a ransom to regain access to your data.

Adware

- Adware is a type of program that shows ads you don't want. It can end up on your computer when you get a free thing or visit a bad website.
- To ensure security, you should avoid clicking on these advertisements!
- Adware is sneaky and so dull! You should take the time to read before clicking OK or next.



Slides 10;

Phishing attacks are the most used by hackers. They hope you will click on links that will install this malware to harm you and hope to receive money in return.

Spyware

- Spyware collects data from users without their knowledge, such as personal information, photos, keystrokes, basic information, websites visited and purchases made.
- The spyware then sends the information to data collection agents, who may then sell this information.



Slide 11;

Spyware can track what you do online and send reports to hackers containing your personal information, such as your logins, passwords, and even footage from your web camera.

Two good tricks...

Use an antivirus program that also scans for malware.

Furthermore, don't forget to update your software and your antivirus programs.



Slides 12;

Antivirus software can be handy but must continually be updated, as with your software and your devices' operating systems. It takes time, but it's worth it!



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.

Brilliant
LABS LABOS
Créatifs



Lesson #4: Malware, you need to learn what they are and what they do.



Lesson #4

**Malware,
learn what
they are and
what they do.**



Slide 13;

This is the lesson to be learned: It is essential to understand malware and how to detect it to better protect yourself online. Users also need to remember to update and use their antivirus software.

Be a Cyber-Safe Owl!!



Slides 14;

“Be a Cyber-Safe Owl!” refers to owls, elegant birds with many qualities, including intuition, intelligence, and wisdom.

Be a Cyber-Safe Owl!!

**Next lesson :
Privacy and ways to
protect it.**

Slides 15;

Lesson #5 will cover the best ways to protect your privacy.



Slides 16;

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Their website is: <https://brilliantlabs.ca/>



Be a Cyber-Safe Owl!

Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.



Lesson #4: Malware, you need to learn what they are and what they do.



Useful Websites for Lesson #4:

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- | **Government of Canada** | **Get Cyber Safe** | **What is malware: How to protect yourself** | Website ; <https://www.getcybersafe.gc.ca/en/blogs/what-malware-how-protect-yourself>
- | **Government of Canada** | **Get Cyber Safe** | **Malware infographic detected!** | Infographic; <https://www.getcybersafe.gc.ca/en/resources/malware-infographic-detected>
- | **Government of Canada** | **Communications Security Establishment** | **Get Cyber Safe** | **Malware and Ransomware** | YouTube Video; <https://youtu.be/hpxDF1Cpx68>
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- | **Fortra's TerraNova Security** (Private company) | **What is Ransomware?** | Infographic-PDF File; <https://terranovasecurity.com/wp-content/uploads/2021/09/What-is-ransomware-EN.pdf>
- | **TerraNova Security** (private company) | **How to protect your data from ransomware attacks** | PDF document; <https://terranovasecurity.com/wp-content/uploads/2021/09/How-to-Protect-Your-Data-from-Ransomware-Attacks-FR-CA.pdf>



Lesson #4

Learn to protect yourself
for primary and
elementary students

Malware, learn what they are
and what they do.



Lesson #4: Malware, you need to learn what they are and what they do.



Additional Activities

These can be modified and adapted depending on your students' ages and interests. The important thing here is to reinforce what was learned in the lesson.

- Conduct a short survey on cybersecurity in general and measure whether people know much about it.
- Prepare posters with advice on how to recognize a fraudulent email.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find phishing statistics from reputable sites.
- Create a story with a cybersecurity adventure.
- Give a brief presentation to another class about what you have learned about phishing and how to protect yourself.
- Invent a cybersecurity and phishing quiz.
- You could create a short video to teach how to recognize a fraudulent email.
- You can visit a class at your school and explain what you learned from this lesson.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Create a small play and perform it with a puppet theatre.
- Use our "Cyber-Safe Owl mascot" to create and solve math problems or to write stories about detectives going on missions.
- You could write your parents or family a letter explaining the best ways to protect yourself with cybersecurity.
- You could organize a competition with cybersecurity protection slogans.
- Prepare a short protection guide that you can share with other people, family members or community members.



Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



Objective of this lesson

In lesson #5, students will learn the importance of protecting their privacy on the internet and being able to differentiate between personal and sensitive data.

Proposed approach

We suggest taking some time during the day to discuss the pitfalls of cybersecurity with your students. You don't need to have extensive knowledge in the field. Using the slides from Lesson #5 of the "**Be a Cyber-Safe Owl!**" program, you can easily present new concepts and essential words (jargon) from cybersecurity. Most importantly, take some time out and have this one-time discussion with your students.

Questions for discussion

Here are some examples of questions that might be useful during or after watching the lesson. Please don't hesitate to modify them or add your questions if necessary;

- **Students in grades K-3:**

- What do we mean by the expression "Be an open book"?
- Are you all sharing with your friends? Are there limits?
- Would you share everything with friends or strangers? Why?
- What is it to have a private life? What can we share, and who can we share with?
- Who are the people with whom we can share elements of our private lives? What should we do if we need more clarification?
- What is personal data?
- What is sensitive data?
- Why is it essential to protect our personal and sensitive data?
- What should you do if you think you made a wrong choice? Who can help us?



Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



- **Students in grades 4 to 6 :**

- What do we mean by the expression “Be an open book”?
- Are you all sharing with your friends? Are there limits?
- Would you share everything with friends or strangers?
- What is personal data?
 - Can you give examples?
 - Why is it essential to protect them?
- What is sensitive data?
 - Can you give examples?
 - Why is it essential to protect them?
- What can hackers do with your personal or sensitive data?
- What are good ways to avoid making our personal or sensitive data known?
- What are some good tips to protect your personal or sensitive data?
- Who can you contact if you think you have made a wrong choice?



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Slide 1;

The objective of lesson 5 is for students to understand the importance of protecting their privacy and the basics of digital privacy. Students will also understand what personal and sensitive data are.

Slide 2;

Students must understand what “privacy” means. It would be best to discuss the importance of not disclosing confidential or sensitive information using digital technology.

Digital privacy means being able to choose what people know about you and what they can do with that information.



Slides 3;

In more detail, digital privacy is the ability to control what we share or not publicly and what others may know to use against us or our loved ones.

Our personal information is valuable, and our digital privacy should be taken seriously.



Slide 4;

Students need to know that their personal information is essential and could be used against them.



Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



Digital Privacy?



**What should
we keep to
ourselves?**



Slide 5;

Before moving on to the next slide, ask students to try to name examples of information that should not be shared.

Our personally identifiable information



All information that makes it possible to tell exactly who a person is personal information. It can be anything that helps to find, contact, or know who someone is.

Slide 6;

Emphasize here that some of this information can identify you personally and, even worse, that this information could locate you, identify you or even contact you.

Examples...

- Your date of birth
- A family telephone number
- The name of your school
- Your pet's name
- Your postal code.



Slide 7;

Review the examples on this slide with students and put the examples in context as needed.

Our personally identifiable and sensitive information

Some information can be really harmful if someone bad gets it.

Sensitive identifiable information is like a secret code that, if someone takes it, they could pretend to be someone else.



Slides 8;

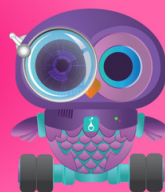
Sensitive identifiable information is information that, if taken by a person, could be used to steal a person's identity. You might even think it's you!



Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



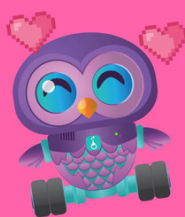
Examples...

- Banking Information
- Credit card number
- Passport information
- Driving license number
- Social Insurance Number (SIN)



Slide 9;

Review the examples on this slide with your students. You might have to put some examples in context as needed.



**This is why
learning how to
protect yourself
when using the
internet is super
important.**

Slides 10;

Explain to students that it is possible to protect themselves by using simple tips that work.

Ideas to help you to stay safe online...

- Refrain from providing strangers information about yourself.
- Don't give your name, address, telephone number or school name.
- Don't put personal information on your social networks.
- Keep your password secret!
- Remember to log out of your account after using a website, especially if you are using a public computer at school or when visiting a hotel.

Slide 11;

Go over the tips listed on this slide with students and put them in context if necessary.

**No one should know
your phone number or
address. Your real
friends already know
it, so why give it to
people you don't know?**



Slides 12;

You could ask students what they think about this statement. Can we establish a consensus on the importance of not sharing personal or sensitive information?



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.

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Lesson #5: Protect your privacy; don't become an open book.



Lesson #5

**Protect your
privacy; don't
become an
open book.**



Slide 13;

This is the lesson to be learned. It is essential to understand why you should not share your personal and sensitive information.

Be a Cyber-Safe Owl!



Slides 14;

"Be a Cyber-Safe Owl!" refers to owls, elegant birds with many qualities, including intuition, intelligence, and wisdom.

Be a Cyber-Safe Owl!

**Next lesson :
Social networks.**

Slides 15;

Lesson #6 will be about Social networks.



Slides 16;

Brilliant Labs is a non-profit organization that helps schools develop creativity and innovation.

Their website is: <https://brilliantlabs.ca/>



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.



Lesson #5: Protect your privacy; don't become an open book.



Useful Websites for Lesson #5;

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- | **MediaSmarts** | **Special Issues for Young Children** | Website; <https://mediasmarts.ca/cyber-security/cyber-security-special-issues-young-children>
- | **MediaSmarts** | **Special Issues for Teens** | Website; <https://mediasmarts.ca/cyber-security/cyber-security-special-issues-teens>
- | **MediaSmarts** | **Privacy issues** | Media Smarts | Website; <https://mediasmarts.ca/digital-media-literacy/digital-issues/privacy/privacy-issues>
- | **Government of Canada** | **Office of the Privacy Commissioner of Canada** | **A Guide for Individuals - Protecting Your Privacy** | Website; https://www.priv.gc.ca/en/about-the-opc/publications/guide_ind/
- | **Government of Canada** | **Office of the Privacy Commissioner of Canada** | **What is personal information?** | YouTube Video; <https://youtu.be/fidswjxPMI>
- | **Google (Private company)** | **Google for Education** | **Teach students internet safety and privacy** | YouTube Video; <https://youtu.be/25G4tLVH1JE>
- | **Government of Ontario** | **Information and Privacy Commission of Ontario** | **Privacy Tips For Kids** | YouTube Video; https://youtu.be/sSX-h7-_YTA
- | **Government of Ontario** | **Information and Privacy Commission of Ontario** | **Protect Your Privacy Online** | YouTube Video; <https://youtu.be/hPTIFX55Qv8>



Be a Cyber-Safe Owl!

Lesson #5

Learn to protect yourself
for primary and
elementary students

Protect your privacy; don't
become an open book.

LABS LABOS



Lesson #5: Protect your privacy; don't become an open book.



Additional Activities;

Depending on your students' ages and interests, these can be modified and adapted. The important thing here is to reinforce what was learned in the lesson.

- Conduct a short survey on cybersecurity in general and measure whether people know much about it.
- Prepare posters with advice on good ways to protect your privacy.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find statistics on privacy crime.
- Create a story with a cybersecurity adventure.
- Give a brief presentation to another class about what you have learned about privacy and ways to protect yourself.
- Invent a cybersecurity and privacy protection quiz.
- Create a short video to teach how to recognize the elements of privacy that should never be shared.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Create a small play and perform it with a puppet theatre.
- Use our "Cyber-Safe Owl mascot" to create and solve math problems or to write stories about detectives going on missions.
- You could write a letter to family members summarizing the best ways to protect privacy.
- You could organize a competition with cybersecurity protection slogans.
- Prepare a short protection guide to share with others, family members or community members.



Be a Cyber-Safe Owl!

Lesson #6

Learn to protect yourself
for primary and
elementary students

Social networks: you need
to protect yourself.

LABS LABOS



Lesson #6: Social networks; you need to protect yourself.



Objective of this lesson: In lesson #6, students will learn how to protect themselves on social media better and be asked to think carefully before deciding to post personal or sensitive information.

Proposed approach: We suggest taking some time during the day to discuss the pitfalls of cybersecurity with your students. You don't need to have extensive knowledge in the field. Using the slides from Lesson #6 of the "*Be a Cyber-Safe Owl!*" program, you can easily present new concepts and essential words (jargon) from cybersecurity. Most importantly, take some time out and have this one-time discussion with your students.

Questions for discussion: Here are some examples of questions that might be useful during or after watching the lesson. Feel free to modify them or add your questions if necessary:

- **Students in grades K-3:**
 - Do you know people who use social media?
 - What do they do on social media in general?
 - Do you think there are any risks in using social networks? Which?
- **Students in grades 4 to 6:**
 - Do you ever send messages using tools other than email? (For example, Facebook, TikTok, Instagram, etc...)
 - If so, have you ever received messages from unknown people?
 - On social media, people can "tag" you in posts. Why do they do it?
 - Do some people place personal or sensitive data on social networks? Is it a problem? What could be the consequences of doing so?



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Lesson #6

Learn to protect yourself
for primary and
elementary students

Social networks: you need
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Slide 1;

The objective of lesson #6 is to understand the importance of protecting yourself when people use social networks.

Slide 2;

Start by discussing social networks in general. What do students know about different social networks, such as Facebook, TikTok, Instagram, or others?

Slides 3;

Continue the discussion by asking students if they know anyone who uses social networks. Ask them what these people do on social networks in general.

Slide 4;

Hackers are also present on social networks. They can follow your posts and send you messages. Never chat with strangers and immediately ask for help to block these people.

Do you, or
anyone you
know, use any
of these social media
platforms or apps?



Hackers like to scour social
networks to find people to
bother and find things about
them that could help them steal
their identities.



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What can we do about this?
You should learn to protect yourself when using social networks and their media platforms or their apps.

Slide 5;

Before moving on to the next slide, ask students what could be good rules to keep in mind to protect themselves.

Social Media



Websites and apps like social media have options to make your stuff more private, but you need to do it yourself. Your friends might tag you in their pictures and post them, which could be bad for your privacy!

Sometimes, you might forget about things you put on social media or what's on your profile.

Slide 6;

Please emphasize here that social networks can put your privacy at risk. This can also happen if your friends place a "tag" without your consent. You must make your security settings private.

This is why learning how to protect yourself when using social networks is super important!



Slide 7;

Social networks can be like a gateway to your private life. It is essential to realize this and to be cautious.

Things to keep in mind...

- Don't put personal information on your social networks.
- Nobody needs to know your telephone number or address. Your real friends would already know it, so why give it to strangers?



Slides 8;

Personal or sensitive information posted on social media could be used to steal your identity. They might even try to impersonate you by creating a fake profile. Some of your friends might get caught in turn.



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Things to keep in mind...

Take a good look at your privacy settings on social networks. You need to change the default settings so that your posts and news are not seen by everyone.



Slide 9;

We need to check the privacy settings. The default privacy should be changed to ensure that your posts and information are not public to everyone. Ask an adult of trust for help.

Things to keep in mind...

If you don't know the person who wants to be your online friend, it's better not to accept. It's safer than adding people you don't know who might be bad.



Slides 10;

Never accept friend requests if you are not 100% sure that you know these people well. Don't hesitate to block people you don't know or who seem suspicious to you.

Things to keep in mind...

Before you share something online, think about it! You don't need to put all your personal information on the internet! Never give your address, your phone number, your Social Insurance Number (SIN) or even your birthday!



Slide 11;

Think carefully before publishing information. If these are personal and sensitive, they should never be published.

Finally...



Sharing pictures and chatting with friends online might seem enjoyable. But, always check with an adult you trust before posting anything online.

Slides 12;

We often forget that photographs can be saved and copied later. However, if you publish a picture, you will no longer have control over whether other people will use it.



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Lesson #6

**Social networks;
you need to
protect yourself.**



Slide 13;

This is the lesson to be learned: Understanding the importance of protecting yourself when using Social Media is essential. Your personal and sensitive information may be of interest to hackers.

Be a Cyber-Safe Owl!



Slides 14;

"Be a Cyber-Safe Owl!" refers to owls, elegant birds with many qualities, including intuition, intelligence, and wisdom.

**Congratulations, you have just
completed the first level! We're
taking you to the next level with
new lessons in cybersecurity.**

**Next, lesson 7 of level 2:
Social engineering...**

Slides 15;

Congratulations, you have just completed the first level! We're taking you to the next level with new lessons in cybersecurity.



Slides 16;

Brilliant Labs is a non-profit organization that helps schools develop creativity and innovation.

Their website is: <https://brilliantlabs.ca/>



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Useful Websites for Lesson #6:

Warning: We use hyperlinks from various sources on the internet. Some advertisements may be present. Before you use a hyperlink in class, you must take a moment to privately verify that it is good for classroom use with your students. We have checked it before suggesting it to you, but the content may have been redirected, modified, or removed over time. It is even possible that some advertisements have been altered and may make you uncomfortable. Ultimately, it is up to you to decide whether you want to use a hyperlink in the classroom with your students. We prefer to let you know.

- | **Brilliant Labs** | Official link of the organization | Website ; <https://www.brilliantlabs.ca/>
- | **Brilliant Labs** | **Links for cybersecurity Education** | Website ; <https://www.brilliantlabs.ca/cybersecurity-resources>
- | **MediaSmarts** | **The Cybersecurity section of MediaSmarts** | Website ; <https://mediaskills.ca/digital-literacy-and-media-education/digital-issues/cybersecurity>
- | **MediaSmarts** | **Special Issues for Young Children** | Website; <https://mediasmarts.ca/cyber-security/cyber-security-special-issues-young-children>
- | **MediaSmarts** | **Special Issues for Teens** | Website; <https://mediasmarts.ca/cyber-security/cyber-security-special-issues-teens>
- | **Kids in the know** | Website; <https://www.kidsintheknow.ca/app/en/about>
- | **NeedHelpNow.ca** | Website; <https://needhelpnow.ca/app/en/index>
- | **Zoe & Molly Online** | Website; <https://zoeandmolly.ca/app/en/>
- | **Canadian Centre for Child Protection** | Website: <https://protectchildren.ca/en/>
- | **Canadian Centre for Child Protection** | **Be Smart, Strong & Safe** | Website; <https://www.intelligence-assurance-prudence.ca/app/en/home>
- | **Canadian Centre for Child Protection** | **Project Arachnid** | Website; <https://www.projectarachnid.ca/en/>
- | **Don't get sextorted. Send a naked mole rat** | Website: <https://dontgetsextorted.ca/>
- | **Government of Ontario** | **Information and Privacy Commission of Ontario** | **Protect Your Privacy Online** | YouTube Video; <https://youtu.be/hPTIFX55Qv8>
- | **ProtectKidsOnline.ca** | Website; <https://protectkidsonline.ca/app/en/>
- | **Google (Private company)** | **Be Internet Awesome - Helping kids be safe, confident explorers of the online world** | Interland interactive game to learn how to protect yourself online | Website; https://beinternetawesome.withgoogle.com/en_us/



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Additional Activities

These can be modified and adapted depending on your students' ages and interests. The important thing here is to reinforce what was learned in the lesson.

- Conduct a short survey on cybersecurity in general and the use of social networks by students or adults at the school.
- You could prepare posters with advice on the proper ways to use social networks.
- You could create a list of essential words or create your cybersecurity glossary.
- Interview with an IT expert.
- You can find statistics on problems related to the use of social networks.
- Create a story with a cybersecurity adventure.
- Give a brief presentation to another class about what you have learned about using social media and how to protect yourself.
- Invent a cybersecurity quiz game on the use of social networks.
- Create a short video to teach the risks of using social networks and give tips for protecting yourself.
- Create an awareness campaign by preparing posters and placing them throughout your school.
- Invent a cybersecurity superhero for your class and invent stories you can write in booklets with your drawings.
- Create a small play and perform it with a puppet theatre.
- Use our "Cyber-Safe Owl mascot" to create and solve math problems or to write stories about detectives going on missions.
- You could write a letter to your parents or family members explaining the best ways to protect themselves using social media.
- You could organize a competition with cybersecurity protection slogans.
- Prepare a short protection guide to share with others, family members or community members.



Conclusion and acknowledgments



Thank you for taking a moment to use our collection of activities for primary and elementary school students.

Brilliant Labs is a non-profit organization located in Atlantic Canada. We encourage hands-on, experiential learning that allows young people to expand their knowledge through creativity, innovation, and today's technology, integrating the United Nations Sustainable Development Goals (SDGs).

In closing, we would also like to invite you to develop the entrepreneurial spirit in your classrooms and in your community. Do not hesitate to contact us if you have questions, and thank you for making a difference in educational programs in Canada or elsewhere.

<https://www.brilliantlabs.ca/>



About de author;

Roberto Gauvin is an Education Consultant for Édunovis. He is also a lecturer at the Université de Moncton. Roberto has been retired as a professional educator since June 2020. He has worked for over 36 years in education as a teacher, principal, and consultant. He was the principal of the Centre d'apprentissage of Haut-Madawaska (CAHM), a K to 8 francophone school located at Clair in New Brunswick, Canada, for almost 20 years. Roberto was also an Education Specialist for two years before retirement with CyberNB, a former operating agency of OpportunityNB.

<https://edunovis.com/>



Visual-Aid # 1

Be a Cyber-Safe Owl!

12 cybersecurity tips to remember and become a Cyber-Safe Owl!



1. It is essential to learn not to fall into the traps of cybersecurity.
2. Always use a strong password.
3. Phishing, don't get caught like a fish.
4. Malware, learn what they are and what they do.
5. Protect your privacy; don't become an open book.
6. Social networks: you need to protect yourself!
7. Social engineering is another type of cybersecurity trap.
8. Understanding the risks associated with the Internet of Things (IoT) is essential.
9. With artificial intelligence (AI), we must be careful about hallucinations.
10. Smart cities can offer benefits but also risks.
11. There are many careers to discover in cybersecurity.
12. With cybersecurity, we must remain vigilant and continue learning.

Visual-Aid # 2

Be a Cyber-Safe Owl!

12 cybersecurity tips to remember and become a Cyber-Safe Owl!

Always use a strong password.

It is essential to learn not to fall into the traps of cybersecurity.

Protect your privacy; don't become an open book.

Phishing, don't get caught like a fish.

Malware, learn what they are and what they do.

Social networks: you need to protect yourself.

Social engineering is another type of cybersecurity trap.

With cybersecurity, we must remain vigilant and continue learning.

Understanding the risks associated with the Internet of Things (IoT) is essential.

Smart cities can offer benefits but also risks.

There are many careers to discover in cybersecurity.

With Artificial Intelligence (AI), we must be careful of hallucinations.