



Lesson Time: 25–30 minutes

Be Safe and Secure Online

Objectives & Outcomes

Lesson Objectives: Students will learn about Internet/computer vulnerability issues, how to minimize safety risks, and the importance of parental involvement.

Lesson Outcomes: *Students will be able to...*

- recognize and take steps to avoid or minimize Internet and computer security risks.
- explain the basics of online safety and evaluate responsible decisions and activities.

Subject Area Connection: Language Arts, Information Technology

Background

The Internet is an exciting place, and the information and resources available are virtually endless. Children are learning to navigate the web at a very young age, but they also need to be aware of the online dangers and security risks that can pop up around every corner. They must be taught to recognize and avoid these threats and understand the necessity of keeping their parents, guardians, or teachers informed about any safety concerns and online activities.

Children must also be reminded never to share personal information. We want students to reap the benefits of new technology, but we also want to keep them safe. Students' online activities can affect everyone around them, so taking precautions is vital! We must encourage them to use critical thinking skills and responsible behavior.

“We want students to reap the **benefits of new technology**, but we also want to **keep them safe.**”

Getting Ready

Teacher Preparation: To prepare for this lesson, become familiar with Internet/computer security terms such as virus, phishing, worm, Trojan, malware, etc. Microsoft has a glossary of terms on their website, as do the websites of many well-known anti-virus protection products.

Materials Required:

- blank index cards
- pencil with eraser
- paper

Introduction and Modeling

Ask students if they would ever think of giving their name or address to a stranger on the street. Would they give their house key to that person? Of course not! But if they put personal data on an unsafe website, they might essentially be doing something similar. Ask if they have an online username, password, etc. These can also be relevant security concerns, especially if they reveal certain information within the username.

Also, if they click on a suspicious link or email or download content from an unsafe site, they might accidentally infect their computer. On the board, list security terms such as virus, bug, Trojan, spyware, phishing, worm, anti-virus, etc. Do students know the meanings? Briefly define and discuss.

Key Vocabulary

vulnerable: the state of being exposed or open to an attack.

security: defense or protection.

precautions: actions taken beforehand to avoid danger or trouble.

Procedure

1. Ask students to make a list of suggestions about information they don't think should be shared with others online. What are some things they think are okay to share? Read the list and have a show of hands if students agree or disagree with the suggestions. Discuss the results.
2. Make sure the 'no' list includes full name, address, phone numbers, email addresses, family or home photos, school names, local or school sports teams, nearby attractions, where parents work, etc. What are some other personal data items that students might not realize can give away too much information or pinpoint their location?
3. Next, pass out blank index cards and have students create usernames and passwords. Before beginning, brainstorm ideas for more secure results and why a safe username and strong password is important.
4. Divide students into groups and have them share their made-up usernames and passwords. Do the usernames follow safety guidelines? Did they avoid giving away location hints? Do others in the group think the usernames and passwords are safe and strong? Have the students evaluate and give each other suggestions and feedback. Another good idea is to avoid gender and age hints in the username creation.
5. Briefly discuss the difference between appropriate and inappropriate websites on the Internet. Who determines what makes a site safe and appropriate for students to visit? Why is it important to follow the directions and rules of a parent, teacher, or other trusted adult?
6. If applicable, discuss safety concerns relating to peer-to-peer (P2P) file sharing, chat rooms, and legal versus illegal downloads of music, videos, and other media. This information probably won't be relevant to younger students, but they may be familiar with the terms or concepts.

Discussion Questions

- What are some of your favorite (safe) online websites and games? Why?
- Why is it important to follow the rules on websites or social media sites that have certain age requirements?
- How do you know if a site you want to visit is appropriate? Who should you ask?
- What should you do if something inappropriate or unsafe pops up on your screen? Who should you tell?
- Do you ever download movies or music from the Internet or share files with friends? If so, how do you know the sites are safe and the content is legal? How can you find out?

Evaluation

Have students create a basic checklist for Internet safety and security guidelines as a follow-up. If they use the Internet at home, have them find out the type of anti-virus protection installed or if parental controls are used for safer age-appropriate browsing. Include the list of personal information data that should never be shared online.

Tips for Tailoring this Lesson

For Higher Grade Levels

- Have students create an online safety pledge or signed contract. This can include agreeing to visit only safe and appropriate websites, follow predetermined rules, keep personal data private, never agree to meet someone they met online in person, and keep parents informed about all online activity—especially if they feel uncomfortable or unsafe.

For Lower Grade Levels

- Have students create a username and password based on proper safety guidelines for their parents to approve and for them to use at home with supervision, if applicable. Also, consider recreating examples of phishing, spam, suspicious emails, or fraudulent pop-ups on the board in order for students to understand what they are and how to avoid them.

Alignment to Standards and Frameworks

Common Core State Standards: College & Career Readiness

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Anchor Standards for Reading

CCRA.R.4 Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.

Anchor Standards for Speaking and Listening

CCRA.SL.1 Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

CCRA.SL.2 Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Partnership for 21st Century Framework

Partnership for 21st Century Framework: the framework comprises the skills, knowledge and expertise students should master to succeed in work and life in the 21st century. Partnership for 21st Century Skills www.p21.org

Initiative and Self-Direction

Manage Goals and Time

- Set goals with tangible and intangible success criteria
- Balance tactical (short-term) and strategic (long-term) goals
- Utilize time and manage workload efficiently

Work Independently

- Monitor, define, prioritize and complete tasks without direct oversight

Be Self-directed Learners

- Go beyond basic mastery of skills and/or curriculum to explore and expand one's own learning and opportunities to gain expertise
- Demonstrate initiative to advance skill levels towards a professional level
- Demonstrate commitment to learning as a lifelong process
- Reflect critically on past experiences in order to inform future progress

Leadership and Responsibility

Guide and Lead Others

- Use interpersonal and problem-solving skills to influence and guide others toward a goal
- Leverage strengths of others to accomplish a common goal
- Inspire others to reach their very best via example and selflessness
- Demonstrate integrity and ethical behavior in using influence and power

Be Responsible to Others

- Act responsibly with the interests of the larger community in mind