

Lesson 3: Email Cyber Threats

Learning Objectives

- Introduce new terms related to cyber threats.
- Increase students' knowledge of cyber threats that can harm a computer and the data stored on it.
- Emphasize the use of anti-virus software, spam filters, anti-spyware software and firewall to protect the computers.
- Enhance students' motor skills while navigating the game.

Materials You Will Need

- Computers with Carnegie Cadets: The MySecureCyberspace Game installed
- Worksheet for Lesson 3: Email Cyber Threats
- Hint Sheet 01 (download from http://www.carnegie cyberacademy.com/documents/hintSheet01.pdf)

Classroom Activities (Duration: 45 minutes)

Timeline	Teacher Instructions	Student Activities
Introduce Concepts (15 min)	 Lead students into the game. Make sure that the students have already talked to Omni and have a Cyberspace Pass as described in Lesson 1. (3 min) Direct students to the CyberPort and have them talk to Carlo. Have students tell Carlo they have a Cyberspace Pass so he will unlock the Cyberspace Portal. (6 min) Make sure all students enter Cyberspace. Direct them to Diagnostics and have them talk to Dr. Keen and take the tour. (6 min) 	 Start and log in to the game. Open PAL and click the Inventory tab. Check to see if they have a Cyberspace Pass. Go back to the Atrium, and click on the door to the "Cyberport." Click Carlo and talk to him. Tell Carlo you have a Cyberspace Pass so he will unlock the Cyberspace Portal. Enter Cyberspace and click on Diagnostics to enter the building. Click Dr. Keen and take the tour. Click on the malware to learn about them.
Develop and Practice (20 min)	 Hand out the worksheet and explain about Malware. Let students attempt quiz #1. (Worksheet, part 1) (5 min) Share the answers to the quiz: Adware (#3), Trojan (#5), Spyware (#2), Virus (#4) and Worm (#1). Explain the tips for using anti-virus software, anti-spyware software and firewalls to protect your computer. (3 min) Explain what spam is. (Worksheet, part 2) (2 min) Lead students into the game again. Direct students to the "Message Center" and have them ask Trey to start the Level 1 training mission. Let students play the mission until they earn a gold badge. (15 min) Make sure all students earn a gold badge and unlock their first ReQuest with Alan. Do not let students proceed to the ReQuest. Students who finish the mission can shop at the Academy Store and decorate their room. 	 Play the mission until you earn a gold badge. After earning a gold badge, buy items from the Academy Store and decorate your dorm room.
Reinforce (10 min)	 Hand out Hint Sheet 01 to students. Make sure all students understand what spam is. (Hint Sheet 01) (5 min) 	• Read Hint Sheet 01.

Learning Outcomes

At the end of this lesson, students will be able to:

- Define the cyber defense terms introduced in this lesson.
- Explain how cyber threats introduced in this lesson can destroy data, hardware and software.
- Take simple steps to protect a computer and data from cyber threats by using a spam filter and anti-virus software.
- Understand how a firewall works and the importance of installing a firewall.
- Navigate The MySecureCyberspace Game with ease.
- Enhance motor skills while navigating the game software.



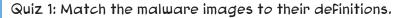
Worksheet 3: Email Cyber Threats

Pate:

Name:

1. What is Malware?

Malware is a software program that harms your computer Adware, spyware, viruses, Trojan horses and worms are all types of malware.





Doctor Keen, Diagnostics Lab Technician



Adware



Trojan Horse



Spyware



Virus



A destructive program that can get into computers or networks and harm them by deleting, modifying or sending out the data.

- A software program that secretly tracks what you do on the Internet and sometimes gets information about you from your computer.
- A software program that causes advertisements to appear on your computer.
- A software program that can wipe out information on your computer and create major problems.
- A nasty program disguised as legitimate software.

Tip: To protect your computer from malware, install the most recent anti-spyware and anti-virus software. You also need to keep the software up-to-date to stay protected. Check with a trusted adult to see if your software is set up to automatically update itself.

Tip: A Firewall is a software program that protects your computer by acting like a security guard and monitoring and controlling the Internet traffic coming in and out of your computer. Install one and make sure it is always turned on.

2. What is Spam?

The Internet version of "junk mail," **Spam** is a message sent to a large number of users, usually to advertise something or to spread malware.



Trey, Message Center Supervisor



Tips For Identifying Spam Emails

If an email is from someone you don't know and the Subject is like any of the examples below, it is probably Spam:

- 1) It sounds too good to be true Sender: NotMCSpammer Subject: You just won millions!!
- 2 It is advertising something Sender: Joe Schmoe Subject: Great Peals Here
- 3 The email sounds interesting but you weren't expecting it Sender: brouhaha

Subject: Win a Free game console!

- There are lots of misspelled words Sender: Sunshin3 Superst@r Subject: Brit3 dats R heer
- S It sounds really strange Sender: Monica Lindsay Subject: Re: mango justified