



## 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.carnegiecyberacademy.com/documents/hintSheet01.pdf> )

### Classroom Activities (Duration: 45 minutes)

Timeline	Teacher Instructions	Student Activities
Introduce Concepts (15 min)	<ul style="list-style-type: none"><li>• 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)</li><li>• 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)</li><li>• Make sure all students enter Cyberspace. Direct them to Diagnostics and have them talk to Dr. Keen and take the tour. (6 min)</li></ul>	<ul style="list-style-type: none"><li>• Start and log in to the game. Open PAL and click the Inventory tab. Check to see if they have a Cyberspace Pass.</li><li>• 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.</li><li>• 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.</li></ul>
Develop and Practice (20 min)	<ul style="list-style-type: none"><li>• Hand out the worksheet and explain about Malware. Let students attempt quiz #1. (Worksheet, part 1) (5 min)</li><li>• 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)</li><li>• Explain what spam is. (Worksheet, part 2) (2 min)</li><li>• 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)<ul style="list-style-type: none"><li>• Make sure all students earn a gold badge and unlock their first ReQuest with Alan.</li><li>• Do not let students proceed to the ReQuest.</li><li>• Students who finish the mission can shop at the Academy Store and decorate their room.</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Read part 1 of the worksheet, and try quiz #1. If you need a hint, go back to the Hall of Quarantine in Diagnostics and click on the malware.</li><li>• Check the answers and read the tips. Understand what anti-virus software, anti-spyware software and firewalls can do.</li><li>• Leave Diagnostics and click the door of the Message Center. Talk to Trey and ask to start the Level 1 mission.<ul style="list-style-type: none"><li>• Play the mission until you earn a gold badge.</li><li>• After earning a gold badge, buy items from the Academy Store and decorate your dorm room.</li></ul></li></ul>
Reinforce (10 min)	<ul style="list-style-type: none"><li>• Hand out Hint Sheet 01 to students. Make sure all students understand what spam is. (Hint Sheet 01) (5 min)</li></ul>	<ul style="list-style-type: none"><li>• Read Hint Sheet 01.</li></ul>

### 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

Date:

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

Quiz 1: Match the malware images to their definitions.



Adware



Trojan Horse



Spyware



Virus



Worm

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



# CARNEGIE CADETS: THE MYSECURECYBERSPACE GAME

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Hint Sheet

01

## 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 Deals Here

3 *The email sounds interesting  
but you weren't expecting it*

Sender: brouhaha

Subject: Win a Free game console!

4 *There are lots of misspelled words*

Sender: Sunsh1n3 Superst@r

Subject: Brit3 dats R heer

5 *It sounds really strange*

Sender: Monica Lindsay

Subject: Re: mango justified