Introduction to Computer Safety

Objectives

In this chapter you will:

1. Read about how to keep your computer safe from natural disasters, accidents and theft.
2. Understand how to prevent damage to your computer.
3. Understand how to prevent losing your files and data if something happens to your computer.



Computer Safety Basics

 **Pre-Reading**

## Discussion

* What is computer safety? What can you do to keep your computer secure?
* How can natural disasters like fire or hurricane affect your computer?
* What is a surge protector?
* What does it mean to back up your data?
* Have you ever had something stolen? A cell phone, a computer, or something valuable?
* What do you do to protect your belongings from being stolen?

# Vocabulary

|  |  |  |
| --- | --- | --- |
| * Safety
 | * Secure
 | * Natural Disasters
 |
| * Hurricane
 | * Surge Protector
 | * Back Up
 |
| * Data
 | * Protect
 | * Lightning Strike
 |
| * Theft
 | * Thief
 | * Human Attacks
 |
| * Accidents
 | * Laptop Lock
 | * Keyboard Cover
 |
| * Human Mistakes
 | * Damage
 | * Disaster
 |
| * Attacks
 | * Hacker
 | * Environment
 |

Match the words to the definitions.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Word** |  |  |  | **Definition** |
| 1. Natural disaster
 |  |  |  | 1. A visible flash of light in the sky during a storm.
 |
| 1. Hurricane
 |  |  |  | 1. A person who steals something
 |
| 1. Lightning strike
 |  |  |  | 1. A natural event that can result in damage to property and life.
 |
| 1. Surge in electricity
 |  |  |  | 1. The act of stealing;
 |
| 1. Theft
 |  |  |  | 1. A sudden increase in electricity.
 |
| 1. Thief
 |  |  |  | 1. A severe tropical storm
 |

An Introduction to Computer Safety

# Overview

In this handout you will learn about computer safety. Anything that can damage your computer or the data on it is a computer threat. Threats can include natural disasters, human attacks, and accidents. Natural disasters such as earthquakes or hurricanes can cause physical damage. It is also possible that you or someone else can accidentally delete some important files on your computer.

There are many things that you can do to reduce these threats and potential loss of data. By following basic guidelines, you can minimize the risks of damage to your computer and ensure its safety.

#  Computer Security Overview

|  |  |
| --- | --- |
| Your computer can be damaged due to **human mistake** (accidentally deleting files), **human attack** (theft), or **natural disasters**. Computer security has to do with the steps that you take to avoid damage to your computer and its data. |  |

# Natural Disasters

Natural disasters such as earthquakes, floods, and hurricanes, can damage your computer. Natural disasters can cause fires, extreme temperatures (very hot or very cold), and lightning that lead to major physical damage to your computer and loss of your data.

This picture shows the various natural threats to computer security.

|  |  |
| --- | --- |
| 1.  | Most of the components of a computer are designed to operate between a specific temperature range. In case of extreme heat or cold, some computer components may begin to stop working, and you may need to replace them.  |
| 2.  | Fire can damage your computer beyond repair. Even if the computer does not directly catch fire, the heat caused is enough to melt the delicate components inside the computer. In addition, smoke can damage the CPU. |
| 3.  | Lightning that strikes with a huge amount of electrical charge can cause a surge. A surge is a sudden increase in the electricity, which can permanently damage some components of your computer. For example, a sudden increase in electricity can destroy the hardware inside your computer. |

# How to PREVENT Damage from Natural Disasters?

Natural threats can cause damage to your computer. The following table explains the steps that you can take to protect your data and computer from natural threats.

| **STEP** | **DESCRIPTION** |
| --- | --- |
| Back up data | Backing up data involves creating multiple copies of your data. You can back up by copying your data to a CD, a flash drive, or an external hard drive. Events like floods and earthquakes can strike without warning. Making a backup helps you recover your data in case of any data loss.  |
| Put computers in secure locations | Put your computer in a place where it is not likely to get damaged due to natural disasters. For example, avoid putting computers in rooms that are exposed to excessive dust or moisture. |
| Use a surge protector | Always plug your computer into a surge protector. You can get a surge protector at any store that sells computers. In case of a major storm, you should turn off the computer and unplug it from the power to avoid damage. |
| Maintain appropriate temperature  | You should maintain a normal temperature and humidity level to ensure the smooth functioning of your computer. This many involve using an air conditioner to keep your room cool. |

# Human Attacks & Accidents

Like everything else that is valuable, you need to protect your computer from being stolen. Mistakes like accidentally deleting data or dropping a computer can also cause problems.

The following table describes various threats from human attackers and mistakes to your computer.

| **THREAT** | **DESCRIPTION** |
| --- | --- |
| Theft | Anyone can steal your computer or its components, if they have access to it. With the popularity of portable computers, such as laptops, theft of computers has become very common. |
| Accidental damage to hardware | Computer components are delicate and can be damaged due to an accident. For example, if you accidentally drop your laptop, this might result in damage to the hardware components, such as the internal hardware or CD-ROM. As a result you could lose the data stored on the computer. In addition, physical damage to data due to spilling food and beverages on storage devices or the keyboard can affect your computer. |

# How to PREVENT Damage from Theft or Accident

You can take some simple steps to minimize the risks associated with human threats and human errors. The following table describes steps to protect your computer from malicious human sources and human errors.

| **STEP** | **DESCRIPTION** |
| --- | --- |
| Back up data | Regularly back up important computer data. Creating multiple copies of data provides protection against loss of data due to accidental erasure or destruction of data. |
| Keep computer in safe environment | Keep the computer in an area that is dust-free, free from vibration, and out of the way of possible falling over. The table or shelf where your computer is should be steady and stable to keep the computer from falling, even if the computer is bumped.Keep the computer away from water, or static discharge. For example, do not put the computer on the floor or on a rug. Avoid eating and drinking near the keyboard and use a keyboard cover to protect against spilling.If you own a laptop, you can purchase a lock that will attach from the laptop to the leg of a table or chair. Keep your laptop hidden from view. If it can be seen from your window, store it in a drawer. Generally, put it in a hidden location when you are not using it. |

#  Review #1

Sort the steps for protection against various types of threats into the correct categories by writing the statement in its corresponding box. Three answers are provided as a model below.

* Surge protection
* Stable shelf
* Distance from magnetic objects and off of the floor
* Keyboard cover
* Normal temperature (use air conditioners as necessary)
* Backup data
* Laptop Lock

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Natural Disasters |  | Human Attack |  | Human Mistake |
| *Surge protection* |  | *Laptop Lock* |  | *Stable Shelf* |

# http://ts2.mm.bing.net/images/thumbnail.aspx?q=4720470245638265&id=af1c8831c77d368a4ef8d56aff1f0795&url=http%3a%2f%2fwww.hugepedia.com%2fwp-content%2fuploads%2f2010%2f09%2fcomputer-safety.jpgReview #2

1. \_\_\_\_\_\_\_\_\_\_\_

How could the following scenarios have been prevented?

|  |  |
| --- | --- |
| **Problem** | **Prevention** |
| Heather’s daughter spilled orange juice on her laptop. Her laptop is permanently damaged and she lost all of her files! |  |
| Boubacar’s computer was on the edge of his desk when the earthquake happened last summer. It fell to the ground and broke. He lost everything! |  |
| Armando’s laptop was on the floor when a water pipe broke in his ceiling. Water got all over it and now it doesn’t work! |  |
| Sarah left her laptop sitting in the sun on a hot summer day all afternoon. Now it won’t turn on! |  |
| Hatch’s house was struck by lightning and now his computer doesn’t work. His TV doesn’t work either!  |  |
| Yayne left her laptop on the desk at the library. She went to the bathroom and when she came back, her laptop was gone! |  |

# **C:\Documents and Settings\htatton\Local Settings\Temporary Internet Files\Content.IE5\VC8YC7AL\MCj04247660000[1].wmf**Review #3

Discuss the following with your partner. Write your answers in the space provided.

|  |
| --- |
| Name three ways that your computer can be damaged |
|

|  |
| --- |
|  |
|  |
|  |

 |
| Name 2 ways that you can protect your computer and/or your data from natural disasters.

|  |
| --- |
|  |
|  |

 |
| What does a surge protector do? |
| Name 2 ways that you can protect your computer from human attack

|  |
| --- |
|  |
|  |

 |
| Name 2 ways you can protect your computer from accidents.

|  |
| --- |
|  |
|  |

 |
| Why is it important to back up your data? |