INTRODUCING WHAT IS COMING IN THE FUTURE...
CHAPTER 0

You will start a journey towards becoming a member of your school’s technical support team. Through the following chapters you will be able to learn multiple facts regarding PC maintenance and the solution to possible problems that could arise when using it.

However, besides theoretical content, in this course you will find practical solutions to specific problems, tips to make technical support team’s tasks more powerful and exercises to apply your knowledge... And, to enable a more interesting learning, you will find amusing materials such as comics, interesting data, games to solve and other teenagers’ experiences throughout Latin America.

This introduction helps you identify different content that you will be able to see in each chapter, so that you can get the most of this course and release your imagination and creativity in order to go beyond what is proposed.

That’s why we call it "Chapter 0": Introducing what is coming in the future...
WHAT ARE YOU GOING TO FIND IN EACH CHAPTER?

HARDWARE SUPPORT

In this chapter you will find:
- What is hardware?
- Which are your PC’s internal components?
- How can you solve and avoid issues that may arise in your PC’s physical part?
- How can you install and replace PC’s internal components?
- Which tools of the operating system can help you solve hardware issues?

At the end of this chapter you’ll be able to:
1] Solve issues and errors that may arise in the PC’s physical part.
2] Avoid potential hardware issues.
3] Use operating system’s tools to optimize PC’s hardware performance.
4] Replace the PC components that are damaged or that do not meet your needs.

"In this chapter you will find:" [A summary of the content that should be addressed]

"At the end of this chapter you will get:" [abilities, skills and knowledge]
Anticipation Strategies

The first pages of each chapter offer anticipating cognitive strategies so that you can achieve significant learning. These are textual and visual strategies, offering two ways to step in the chapters.

“Introduction to the Chapter” [narrative presentation of what will be addressed throughout the following pages]

“Conceptual Map of the Chapter” [graphical organization of content to work with]

Chapter 0: Introducing what is coming in the future...
Theoretical and Practical Contents

In each chapter you will find a theoretical development regarding concepts and sequences to be followed so that you can apply your acquired knowledge. When reading the text, you will learn everything...
Additional Information

Besides the general development, in each chapter you will find tables that offer additional information. With them, you will be able to know relevant aspects through conceptual briefs, tips to follow, aspects to pay attention to, meanings of specific terms, etc.

Frequent Issues
[emerging issues with the ones that you can find when performing certain operations]

Pay attention
Wired networks’ speeds may vary if compared with wireless networks. They can be between 10, 100 and 1000Mbps, the last one being the most recent one. The wired network speed is determined according to all its components, i.e., network card, active elements and cable. That means that if you have a 10/100Mbps network card and a hub that supports Gigabit connections (i.e., 100 Gbps), the network will work with 10/100 because the network card does not support the expected speed.

“Warning” [aspects that cannot be overlooked]

Tip!
If you have only one PC in a Home Group connected to the TV and a video file saved in it, you can access this file from any other networked PC. Thus, if you want to use this AV file in the classroom, it will be easier to play it with this Windows 7 functionality. *

“Tip!” [recommendations to be followed]

Is any device in your PC not working since you upgraded to Windows 7?
During the installation of the new operating system, some problems may appear but they can be quickly and easily solved. It is possible that any PC device, such as monitor, sound card or printer, does not work since the upgrade. How can we repair it? First of all, try to reinstall the device. If it still doesn’t work, you will need to check if the manufacturer provides a more recent version of the driver that can work with Windows 7. In these cases, you can search for the appropriate driver in the manufacturers’ websites.

Informative Charts [Subject expansion regarding the chapter’s content]

Now that we know what the hardware is, it’s time to focus on the PC’s internal part. The motherboard is the first and most important element. It hosts all connections needed when building a computer: hard drive, micro-processor, source, memory, sound and video cards, internal and external ports, peripherals... they are all connected to the PC.

Glossary [definition of specific terms]

motherboard
The motherboard is the core circuit card in a complex electronic device, such as a PC. Its main task consists in providing logical and electrical connections to the system’s components.
Other Teaching Materials

In each chapter you will find content that does not refer to theoretical and practical aspects, but offers other possibilities to interact with knowledge and maximize learning. We call them "Other Teaching Materials" because we believe that the amusing aspects significantly help the teaching processes. That is why they include materials such as games, environmental information, amusing banners, interesting links to navigate the Web, other students and teachers’ experiences with new technologies, etc.
Chapter 0: Introducing what is coming in the future...

38. Take your most funny photo

“Sharing experiences” [stories of Latin American students and teachers with new technologies]

In Concepción de Sacapalo, Guatemala, there are many children, teachers, and schools that maximize their lives with technology. Laura Estefan, a sixth-grade teacher, says that they started to develop educational projects by integrating Information and Communication Technologies and using the same instructional methods they've always used, thus, it's easier for their students to perform the tasks. On the other hand, Cesar, a rural school teacher, says that the continuous update and teachers' readiness are the key to success. However, he highlights that the "heart" is the most important thing that a teacher has to have in order to enjoy the processes through which students -boys and girls- can enrich their knowledge even more. The leading characters of Concepción de Sacapalo also say that, in many occasions, teachers and students learn at the same time, which enables new education ways where technology plays the main role. Thus, teachers and students face every day the challenge to show their potential.

Assemble your Puzzle!

Put each piece in the correct place.

A  B  C
1  T M
2
3
4
5

Games [to have fun and learn]

Links [different proposals to explore in the Web]
Exercises and Exam

At the end of each chapter, you’ll find an exercise proposal and a self-assessment questionnaire to evaluate your newly acquired knowledge and consolidate your learning.

Self-assessment

Answer the questionnaire and check how much you have learned in this chapter.

1. What is bootup?
   a. The term that refers to programs and applications of a PC
   b. The term that refers to all physical and non-physical components of a PC
   c. A PC’s motherboard

2. Which additional cards can you set up in the expansion slots?
   a. Ethernet cards
   b. Serial cards
   c. Paralleled cards
   d. All the answers are correct

3. What is a hard drive?
   a. A mass storage device
   b. A device of non-volatile memory
   c. The PC’s main processing unit

4. Which is the device responsible for performing and controlling all PC operations?
   a. The microprocessor
   b. The motherboard
   c. The hard drive

5. What component is also known as a “graphic adapter”?
   a. Keyboard
   b. Monitor
   c. Video card

6. Changing the PC’s internal device is one way to support bootup.
   a. True
   b. False

7. Which is the PC’s internal component that provides the power supply for each device?
   a. The power source
   b. The motherboard
   c. The microprocessor

8. The greater the RAM memory is, the better the PC performance and its operation will be optimized.
   a. True
   b. False

9. Which of the following are types of hard drive?
   a. CD-ROM
   b. DVD-RW
   c. IDE
   d. IDE
   e. IDE

10. What are drives?
    a. Physical devices that are connected to the hard drive
    b. Applications that act as intermediaries between the operating system and the devices
    c. None of the answers are correct

Exercises

[activities to apply the knowledge]