



PETER NORTON'S®

Introduction to Computers



- Web integrated activities
- Self-assessments to reinforce main concepts
- Online Resource:
www.mhhe.com/peternorton

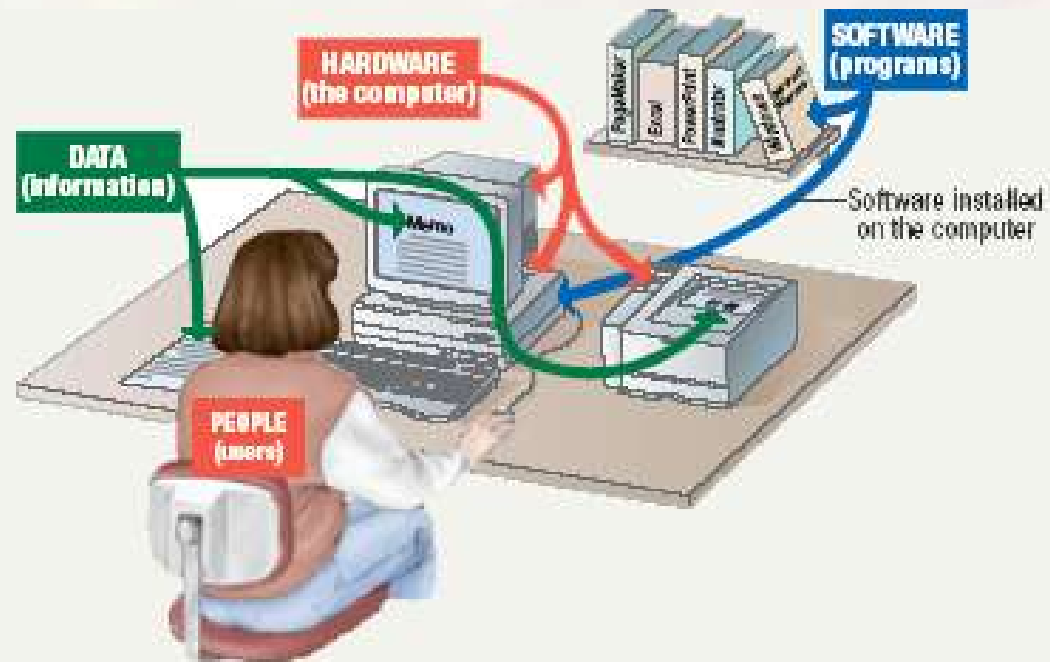
 **Technology
Education**

Chapter 1B

Looking Inside the Computer System

Parts of the Computer System

- Computer systems have four parts
 - Hardware
 - Software
 - Data
 - User



Parts of the Computer System

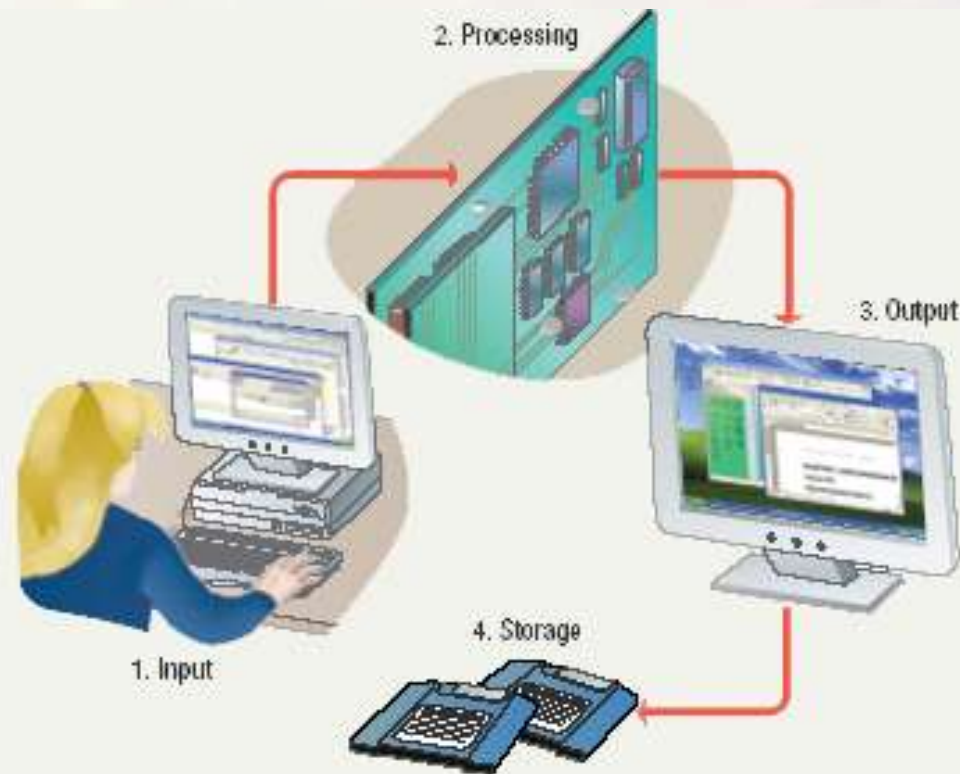
- Hardware
 - Mechanical devices in the computer
 - Anything that can be touched
- Software
 - Tell the computer what to do
 - Also called a program
 - Thousands of programs exist

Parts of the Computer System

- Data
 - Pieces of information
 - Computer organize and present data
- Users
 - People operating the computer
 - Most important part
 - Tell the computer what to do

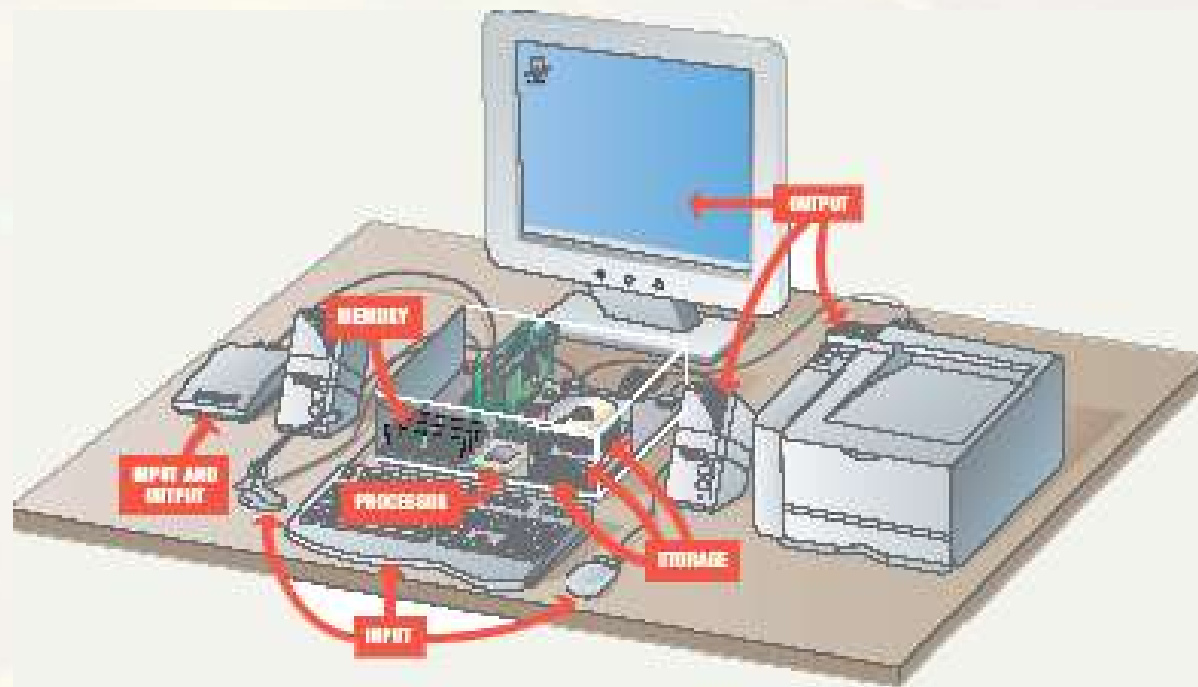
Information Processing Cycle

- Steps followed to process data
- Input
- Processing
- Output
- Storage



Essential Computer Hardware

- Computers use the same basic hardware
- Hardware categorized into four types



Essential Computer Hardware

- Processing devices
 - Brains of the computer
 - Carries out instructions from the program
 - Manipulate the data
 - Most computers have several processors
 - Central Processing Unit (CPU)
 - Secondary processors
 - Processors made of silicon and copper

Essential Computer Hardware

- Memory devices
 - Stores data or programs
 - Random Access Memory (RAM)
 - Volatile
 - Stores current data and programs
 - More RAM results in a faster system
 - Read Only Memory (ROM)
 - Permanent storage of programs
 - Holds the computer boot directions

Essential Computer Hardware

- Input and output devices
 - Allows the user to interact
 - Input devices accept data
 - Keyboard, mouse
 - Output devices deliver data
 - Monitor, printer, speaker
 - Some devices are input and output
 - Touch screens

Essential Computer Hardware

- Storage devices
 - Hold data and programs permanently
 - Different from RAM
 - Magnetic storage
 - Floppy and hard drive
 - Uses a magnet to access data
 - Optical storage
 - CD and DVD drives
 - Uses a laser to access data

Software Runs The Machine

- Tells the computer what to do
- Reason people purchase computers
- Two types
 - System software
 - Application software

Software Runs The Machine

- System software
 - Most important software
 - Operating system
 - Windows XP
 - Network operating system (OS)
 - Windows Server 2003
 - Utility
 - Symantec AntiVirus

Software Runs The Machine

- Application software
 - Accomplishes a specific task
 - Most common type of software
 - MS Word
 - Covers most common uses of computers

Computer data

- Fact with no meaning on its own
- Stored using the binary number system
- Data can be organized into files

Computer users

- Role depends on ability
 - Setup the system
 - Install software
 - Manage files
 - Maintain the system
- “Userless” computers
 - Run with no user input
 - Automated systems

Chapter 1B

End of Chapter