



Lesson Plan
Supports the Computer
Fundamentals section within
the IC³ Certification Test

Course: Job Skills/Computer
 Concepts CC/CCTE
 Unit: IC³ Certification –
 Computer Fundamentals
 Topic: How Do I Input Data and
 Output and Store Data?
 Timeframe: 3.0 hours

<p>ESLR's</p>	<p>X #1 Communicating Effectively X #2 Accessing and Managing Job Related Resources #3 Setting Career and Life Goals #4 Accepting Personal Responsibility</p>	<p>California Career Technical Education Model Curriculum Standards: Information Support and Services Pathway A7.1 Know common industry-standard software and its applications.</p> <p>Academic Standards: Grades Eleven and Twelve-Listening & Speaking 1.8 Use effective and interesting language, including: a. Informal expressions for effect b. Standard American English for clarity c. Technical language for specificity.</p> <p>IC³ Certification Standard: Module 1 - Computing Fundamentals ■ Identify types of computers, how they process information and how individual computers interact with other computing systems and devices</p> <p>All Aspects of the Industry: Principals of Technology: Technological systems being used in the workplace and their contributions to the product or service of the organization.</p>
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<p>Presentation</p>	<p>20 mins</p>	<p><i>INSTRUCTOR</i></p> <p>Students will be instructed to primarily observe teacher's presentation. Instructor will focus this lesson on the devices used to input and output data and how to connect those devices to the computer. Instructor will address different types of media used to store data, as well as how to care for removable storage devices.</p> <p>Instructor will present a PowerPoint Presentation in which illustrations of input, output, and data storage devices will be established. Upon lesson completion, discussion will be enforced. (This may be obtained through a variety of integrated visual tools within their textbooks.)</p>	<p>Instructor computer with Digital projector Open Internet</p>
<p>Application/ Activity</p>	<p>60 mins</p>	<p><i>INSTRUCTOR/STUDENTS</i></p> <p>Instructor will commence the lesson by presenting a PowerPoint Presentation, primarily, addressing the input, output, and storage data devices. Realistic input/output and storage devices will be presented throughout the lesson. Besides putting together a PowerPoint Presentation, Instructor has arranged to present "actual" output/input and storage device equipment. Students will analyze each device and will be able to appreciate all the different device sections. At the same time, "Say, See, and Do Cycles" teaching methodology will be addressed.</p> <p>Instructor will address and discuss the purposes and sophistication of input and output devices, relating the choice of device to the particular task to be completed. Instructor will introduce students to voice recognition devices, scanners, video input, and digital cameras.</p> <p>Instructor will also address that what really makes a computer widely used is the fact that computers process information very quickly.</p> <p>Instructor's presentation via PowerPoint Presentation will illustrate the beginning of computers starting from the 1950s, 1960s and 1970s, and denote that computers then, were large and limited in what they could do. Note: (For resources, Instructors may use the Internet.)</p> <p>Instructor will conclude that computer have vastly impacted our lives. They have changed many things that we do such as the following:</p> <ul style="list-style-type: none"> ➤ The way we bank. ➤ The way we buy groceries. ➤ The way we shop for toys. ➤ The way we do our homework. <p>Students will be instructed to first, observe the PowerPoint Presentation, and after PowerPoint Presentation, students will follow directions for independent computer retrieval information on input, output and storage devices. Students will be able to:</p>	<p>Student computers and a World Wide Web browser</p> <p>Instructor's Computer</p> <p>Digital Projector</p> <p>Input/output/storage devices</p>

	40 mins	<ol style="list-style-type: none"> 1. Demonstrate lesson by clicking on the Start Button. 2. Select PowerPoint Software Application. 3. Open files and choose PowerPoint Presentations Lesson. 4. Illustrate the lesson. 5. Identify a computer. 6. Emphasize why computers are so popular. 7. Integrate the history of the computer. 8. Identify the different types of computers and demonstrate graphical computer objects from the 1950s, 1960s, and 1970s. 9. Emphasize how computers are used. 10. Illustrate the use of a computer in a video store. 11. Demonstrate different types of computers, e.g. microcomputer, minicomputers, notebook computer, the personal digital assistant (PDA), and Mainframe computers 12. State and illustrate that the Super computers are often used for medical and scientific experiments. <p>After students have observed the lesson, students will discuss the newly learned information with instructor and peers. Students will create an outline of the lesson and investigate on the Internet a more detailed description of the input, output, and storage devices.</p> <p>Students to print outline and discuss among study group members.</p> <p>Students to write a daily journal on their findings.</p> <p>Students to turn in to instructor.</p> <p><i>INSTRUCTOR</i> To walk around the classroom to make sure all students understood the input/output, connections and storage devices.</p>	
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Closing	15 mins	<p><i>INSTRUCTOR</i> Writes the following questions on the board. Students will be given a three question Quick Quiz.</p> <ol style="list-style-type: none"> The cost of modern computers, weighed against the varied tasks they can perform, makes them _____ A. very expensive devices B. cost-effective devices C. inexpensive, yet limited devices D. very inexpensive devices Answer B A computer system can be defined as a _____ A. device capable of performing calculations. B. combination of related elements working together as a whole to achieve a common goal. C. device capable of doing work. D. mechanical device capable of operating automatically. Answer B Tangible, physical equipment that can be seen and touched is called _____ A. software B. hardware C. diskettes D. hard drive Answer B <p>Students will submit Quick Quiz, and daily journal to instructor. Assessment will be evaluated by the Computer Fundamental Rubric indicator.</p>	Three questions Quick Quiz
Assessment/ Evaluation	15 mins	<p><i>INSTRUCTOR/STUDENTS</i> Instructor will review the recent hardware, input/output and storage device lesson with students. Lesson Vocabulary Summary will be distributed to students.</p>	World Wide Web Lesson Vocabulary Summary
Homework		<p><i>STUDENTS</i> Students will prepare a report describing several applications in which a user would need to use Zip and Jaz drives. The report should include a description of the application and explanation of why it is necessary to use these storage devices. Lesson quiz to be administered during next class.</p>	Textbook, paper, Pen

Lesson Rubric – Input, Output and Store Data

Introductory	Developing	Proficient	Exceptional
<p>Not able to recognize output, input, and storage devices. Needs assistance differentiating devices. Needs visual illustrations for understanding. Does not know how to print. Needs Instructor's guidance to complete task.</p>	<p>Able to identify input, output and storage devices. Able to describe and use the Internet for resource. Able to print documents.</p>	<p>Able to recognize, input/output and storage devices with no problems. Capable to save information and retrieve at a later time. Able to complete task with a minimum amount of questions. Able to choose most updated topic search on the Internet. Student is proficient and secure while developing this process. .</p>	<p>Able to recognize, input/output and storage devices with no problems. Able to save information and retrieve at a later time. Student is confident enough to teach others. Student is proficient and secure while developing this process. Student is able to investigate the Internet and come out with tangible information. Requires no supervision. Student is able to teach others.</p>

*adequate = satisfies requirements

Based on your examination of the portfolio entries and the dimensional scores, please review the overall (holistic) score levels described above, and give the portfolio a final, overall score. Please provide a justification for the overall score.

Overall Score: _____

Justification: _____

Student Name and/or ID Number: _____

School: _____ Evaluator: _____

Input, Output and Store Data

How Do I Input Data and Output and Store Information?

Vocabulary Review

CD-ROM—Disk that can store up to 680 MB of data; data can only be read from it.

Dot pitch—Measurement of the distance between pixels.

DVD—Also called Digital Versatile Disk; full-length movies can be stored on this medium.

File allocation table (FAT)—A special log on a disk where tracks are stored.

Function keys—Keys on the keyboard that are used to give commands to the computer.

Graphic tablet—Input device that has a flat drawing surface on which a user can draw figures or write something freehand.

Input devices—Enables the user to input data and commands into the computer.

Jaz drives—Type of disk capable of storing as much as 1 GB of data.

Magnetic tape drives—Used for making backup copies of large volumes of data.

Management Information Systems (MIS)—Organized system of processing and reporting information in an organization.

Modifier keys—Keys on the keyboard that are used in conjunction with other keys to execute a command. The Shift, Ctrl, and Alt keys are examples of modifier keys.

Non-impact printers—Type of printer in which characters are formed without anything striking the paper.

Optical storage devices—Use laser technology to read and write data on silver platters.

Output devices—Devices that enable the computer to give the user the results of the processed data.

Parallel ports—Ports used to physically connect input and output devices to the computer.

Parallel ports transmit data eight bits at a time.

PhotoCD—Used to store digitized photographic images.

Printhead—Mechanism in a dot matrix printer that actually does the printing.

Resolution—The number of pixels or dots that a monitor can display.

Serial ports—Ports used to physically connect input and output devices to the computer. Serial ports transmit data one bit at a time.

Special-purpose keys—Keys on the keyboard, such as the Esc or Num Lock keys, that perform a specialized function.

Touch display screen—Input device where you use your fingers to “point” to an object on the screen.

Trackball—Pointing device that works like a mouse turned upside down; controls the movement of the on-screen pointer.

Tracks—“Circles” on a disk where the magnetic read/write head stores data or retrieves it.

Virus—Computer program that’s written to cause corruption of data.

Voice recognition—Input devices used to “speak” commands into the computer and to enter text.

WORM disks—Optical disk storage devices that use laser beams and optical technology to permanently store large volumes of data.

Zip drives—Type of disk capable of storing as much as 1 GB of data.

**IC3 BASICS (Key Applications)
Internet & Computing Core Certification**

LESSON PROJECTION

Lesson	Name	Delivered	Completed	Skill Practice Quiz
1	Introduction to Office XP			
2	Introduction to Word			
3	Editing Documents			
4	Formatting Documents			
5	Working with Tables			
6	Desktop Publishing			
7	Working with PowerPoint Presentations			
8	Enhancing PowerPoint Presentations			
9	Working with Visual Elements			
10	Creating Formatting & Excel Worksheet			
11	Organizing Worksheet Formulas			
12	Creating Worksheet Formulas			
13	Using Function Formulas			
14	Using the Worksheet to communicate Information			
15	Working with Access Databases			
16	Editing Records & Using Forms			
17	Ordering & Finding data and creating report mailings			
18	Working with Outlook			