Jigsaw Group Worksheet – Chapter 2: Computer Hardware

Name: SYAHIDATUL NAJWA BINTI ZAMRI
(SX241889ECJHF01)

Class/Group: TECHNOLOGY & INFORMATION SYSTEM/ GROUP 4

Instructions:

As you meet with each expert from the subtopics, listen carefully and complete the table below. You should finish with a summary of all 6 subtopics.

Summary Table

Subtopic	Key Points (Write 2–3 key facts)	Expert's Name
1. Introduction to Computer Systems & Hardware	• Understanding computer systems. - A computer system is a combination of hardware and software components working together to perform specific tasks. • The difference between hardware and software: **Hardware**: Tangible physical elements of a computer, such as input devices (keyboard, mouse), output devices (monitor, printer), storage devices (hard drives, SSDs), and internal components like the CPU and RAM **Software**: Intangible instructions that tell the computer how to perform tasks. • Importance of hardware in computer functionality. -Hardware ensures performance, enables data storage, facilitates input/output operations, and supports connectivity, making it essential for the smooth functioning of computer systems.	AFIQ SYAZWAN
2. Input and Output Devices	• Functions of input and output devices. - Input devices capture user data or commands and send them to the computer for processing (e.g.,	ASWINI

	keyboard, mouse). - Output devices present processed data in a form perceivable by the user, such as visuals (monitor) or audio (speakers). • Interaction between input and output devices. - Input devices convert physical actions into digital signals for the computer to process. - Output devices convert the processed data back into a human-perceivable form, completing the interaction loop. • Examples of input and output devices. - **Input**: Keyboard for text input, microphone for audio input. - **Output:** Projector for visual display, headphones for audio delivery.	
3. System Unit and Its Components	• **System Unit –** Houses all essential computer components like motherboard, CPU, RAM, power supply, and storage. • **CPU Components –** Includes Control Unit (CU), Arithmetic Logic Unit (ALU), and Registers for processing data and instructions. • The Functions of main components. -**Motherboard**: Connects all parts. -**RAM**: Temporary memory for fast access. -**Storage**: Stores data and programs. -**Power Supply**: Provides power. -**Expansion Cards**: Add extra features (graphics, sound, etc.).	CHE KU MARDIAH

4. Storage Devices	• **Storage in Computing –** It's the process of saving and retaining digital data for later use. Without it, computers can't keep data permanently. • **The types of storage** – **-Primary Storage** (RAM): Fast but temporary. **-Secondary Storage** (HDD, SSD): Long-term, retains data even when power is off • **Current Trends –** Cloud storage services like Google Drive, iCloud, AWS, and Microsoft Azure allow users to store and access data online, enabling remote access and collaboration.	NAJWA
5. Ports and Connectors	• The definition and purpose of ports and connectors. Ports are sockets for connecting external devices to the system unit, enabling communication and data transfer between devices. • **Types of Ports:** Various standard and specialized ports exist, including USB, HDMI (for high-definition audio/video), and Ethernet (for wired internet connections). Each port serves specific functions and connects to different types of devices. • **Real-World Usage Examples:** Common use cases include connecting a laptop to a TV via HDMI for larger screen viewing, using Ethernet for stable internet connections, and connecting headphones through a 3.5mm audio jack for private listening.	RADHA/ ARIFF

6. Care and Maintenance of Computer Hardware	• **Importance of Maintenance -** Regular maintenance enhances performance, improves response time, and extends the lifespan of hardware by detecting issues early and preventing wear and tear. • **The tips for proper care-** Organizing wires, cleaning peripherals, running antivirus scans, and regularly updating the operating system and passwords are essential practices for maintaining hardware health. • **The common problems and prevention-** **Data Loss:** Causes: Accidental deletion or hardware failure. Regularly back up data and implement robust data security protocols (e.g., encryption and secure storage). **Electrical Problems:** Causes: Outdated wiring or overloaded circuits. Prevention: Conduct regular inspections of electrical systems and practice proper usage (e.g., avoiding overloading outlets or circuits).	ATIRAH

❔ Reflection (Answer in 1–2 sentences)

1. Which subtopic did you find most interesting, and why?

The subtopic I am most interested in is storage devices because they are a crucial component of modern technology. Storage devices play a key role in storing data, applications, and operating systems, ensuring quick and seamless access to information. The diversity of storage devices, such as Hard Disk Drives (HDDs), which allow for large data storage, Solid-State Drives (SSDs), which offer speed and durability, and cloud storage, which enables data access from anywhere, makes them flexible and innovative.

2. What is one thing you learned today that surprised you?

The one thing I learned from my class today is I randomly meet friend from my classes to doing the assignment together and do the random quiz together and study together about this topic.