BASIC 8

WEEKLY LESSON PLAN – WEEK 5

Strand:	Introduction to Computing		**Sub-Strand:**	Components of Computers and Computer Systems	
Content Standard:	B8.1.1.1.Examine the parts of a computer				
Indicator (s)	B8.1.1.1.4 Examine Storage portable hard drives, Optical Discs and Drives.		**Performance Indicator:** Learners can use storage devices.		
Week Ending	11-10-2024				
Class	B.S.8	**Class Size:**		**Duration:**	
Subject	Computing				
Reference	Computing Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook.				
Teaching / Learning Resources	Personal Computer, Projector, Pen drive, Hard Disk Drive, CD, DVD.		**Core Competencies:**	Creativity and Innovation Communication and Collaboration.	

DAY/DATE	**PHASE 1 : STARTER**	**PHASE 2: MAIN**	**PHASE 3: REFLECTION**
TUESDAY	Discuss meanings of keywords and terminologies with the Learners.	1. Assist Learners to identify 5 examples of Storage Devices. 2. Using a Power Point Presentation, explain the types of Storage devices with examples. 3. Discuss the functions of some Storage devices with the Learners. 4. Individual Learners to practice using Storage devices.  A storage device is any type of computing hardware that is used for storing, porting or extracting data files and objects. Storage devices can hold and store information both temporarily and permanently. They may be internal or external to a computer, server or computing device. A storage device may also be known as a storage medium or storage media depending on whether it is seen as discrete in nature (for example, “a hard drive” versus “some hard drive space.”)	Reflect on the functions of storage devices. **Exercise;** 1. What is Storage? 2. List 5 examples of storage devices. 3. Explain 2 types of Storage Devices.

THURSDAY	Show Learners Video and Pictures of portable Hard Drives, Optical Discs and drives.	1. Discuss with Learners the features of Portable Hard Drives, Optical Discs and drives. 2. Learners brainstorm to compare the maximum capacities of storage devices. 3. Assist Learners to compare the write speeds of storage devices . 4. Learners in small groups discuss the advantages and disadvantages of storage devices. **Portable Hard Drives;** A Portable hard drive gives you more storage space to keep your data. When you store data on a portable hard drive, you can only access it when the hard drive is plugged into your computer. You can use a portable hard drive to store files that you don't access very frequently. Features • Interface : Portable hard disk are compatible with USB 2.0 interface and some with both USB 2.0 and 3.0 but commonly used interface is USB 2.0. Drives with USB 3.0 supports 10 times high speed data rate transfer compare to USB 2.0. • Storage capacity : Ranges from 160 GB to 1 TB (1 TB = 1024 GB). • Non-volatile storage : Contents of the drives are not lost when removed from the USB port or power is turned off. • Rotating speed : Ranges from 5400 to 7200 RPM (Rotations Per Minute) or more. Higher the RPM the faster data can be read to increase performance of system. • Supports plug-n-play, hot-swappable, and hot-pluggable making the hard drive convenient and easy to use. • Does not require any extra power supply because required power is drawn from the USB. • Compatible with all versions of operating system like Windows, Mac and Linux. • Cost is high compare to regular hard disk. **Optical Discs;**	Through questions and answers, conclude the lesson. **Assignment;** 1. State 3 features each of; i. Portable Hard Drives ii. Optical Discs and drives.

An optical disc is an electronic data storage medium that is also referred to as an optical disk, optical storage, optical media, Optical disc drive, disc drive, which reads and writes data by using optical storage techniques and technology.

Different Kinds of Optical Drives

Optical drives are disk-based drives that were introduced to the market in the 1980s to allow for increased storage capacity and faster read and write times. There are multiple kinds of optical media, which are discussed below:

CD-ROM

CD-ROM, short for compact disk read-only memory, was the first disk on the basis of drives for the latest PCs. CD-ROM devices populate Compact Disk Filing System discs with data encoded in ISO 9660.

DVD-ROM

DVD-ROM drives, which stand for Digital Versatile Disk Read Only Memory and are a direct evolution from CD-ROM drives, have significantly more performance and capacity than their CD counterparts while maintaining the same physical dimensions.

Blu-ray

In the commercial market, Blu-ray drives are the newest drives available as of 2011. During the early 2000s, Sony developed the Blu-ray technology that was one of the founding proponents

RW Drives

The rewritable drive types are Blu-ray drives, DVD-ROMs, and CD-ROMs. All the functionalities of read-only counterparts are available in RW drives. Write processes are particularly sensitive to shock and can ruin the disc beyond repair if forcibly interrupted; write speeds are slower to preserve stability than read speeds.

Name of Teacher: **School:** **District:**