



## Storage Hardware: Hard Drive & CD/DVD Drive

1. Whereas memory chips deal only with temporary storage, secondary storage, or permanent storage, stores data for as long as you want.
2. Examples of secondary storage devices are hard-disk drive, and CD/DVD drive.
3. Secondary storage devices and media usually measure their storage capacity in bytes, kilobytes, megabytes, gigabytes, terabytes, and petabytes.

1 byte = 1 character of data

A character can be alphabetic—A, B, or C.

Or numeric—1, 2, or 3.

Or a special character—!, ?, \$, %.

1 kilobyte = 1,024 characters

1 megabyte = 1 million characters

1 gigabyte = 1 billion characters

1 terabyte = 1 trillion characters

1 petabyte = 1 quadrillion characters

1 exabyte = 1 quintillion characters

1 zettabyte = 1 sextillion characters

**Hard-Disk Drive:** A hard-disk drive is a storage device that stores billions of characters of data on a nonremovable disk platter. Hard-disk drives are generally internal.

Ordinary drives contain 100 to 500 gigabytes of storage (some go up to 2 terabytes).

A DVD

A Flashdrive

A **CD (compact disk) drive**, or its more recent variant, a DVD (digital video disk) drive, is a storage device that uses laser technology to read data from optical disks.

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