Memory Questions

1. Describe the difference between ROM and RAM and how these are used in a computer

RAM contains billions of transistors that then you turn off the computer you will lose the data. Static RAM is a type of memory that does not lose memory when you turn the computer off.

ROM is Read Only Memory this stores data that can’t be edited only read. The BIOS is the Basic Input Output System and a type of ROM that stores the start-up instructions. Flash ROM is a type of ROM memory that you can be edited, you can add and delete data on it and read it. It is faster than a hard drive.

1. What is virtual memory?

Virtual memory is a special part of the hard drive that stores your programs that are open that you are not currently using. Then you computers physical ram is running slowly, your Virtual memory will move the programs you’re not using onto a temporary storage space on your hard drive.

1. How does installing more RAM affect the use of virtual memory and how does this affect the performance of the computer?

If you install more RAM onto your computers motherboard it means the computer can store more programs and data in the RAM. Having more RAM increases the computers performance because the CPU can store more data onto the RAM. This also means virtual memory does not have to move so many programs around to free up space on the RAM.

1. A student uses several different computers in school and at home. Explain how a flash memory drive will help this student manage his/her work.

A flash memory drive is a type of non-volatile memory that you can erases data from. Data in flash memory drives are stores in blocks. This would help the student because he/she could move their work easily from the home computer to the school computers using a flash memory drive like USB or external hard drive.

1. While a computer is working what is stored in RAM?

RAM stores your programs and data that are running on the computer. The RAM also stores the operating systems services that are running. RAM stands for Random Access Memory.

1. How does a computer use ROM?

Your computer uses ROM as permanent storage. ROM stores the data that can’t be edited.

Extension Questions

* Investigate the sizes of flash memory drives and their cost per GB of capacity. Use sites like ebuyer.com to research available sizes of flash memory and their cost. Work out the cost per megabyte of each. What can you say about the relationship between size and cost? Present your answers clearly.
* Why do all devices using computers (e.g. washing machines, DVD players and televisions) have both ROM and RAM?