

Question: What should I buy for a “back to school” computer?

Answer: It depends.

I’m sure your kids are not very happy to see the recent slew of “Back to School” advertisements. Meanwhile parents everywhere are jumping for joy! If you’re considering purchasing a computer for your child’s educational use, now is a great time! Here are a few pointers to help you make a good choice.

When someone is considering purchasing a computer I usually get the following question, “What do you think of Dell computers? Gateway computers? Apple computers?” etc. This is absolutely the wrong question to ask. **The first question you should ask is: How will this computer be used and what software will it be running?** Everyone gets hung up on the brand of computer. I want to know how the computer will be used so I can make sure to purchase the appropriate machine regardless of brand.

Educational software is very diverse! Kindergarten and elementary kids use numerous programs that are graphics and audio intensive. Middle school, high school and college kids use everything from basic office software such as word processors, spreadsheets, and database programs to high end Computer Aided Drafting and Computer Aided Manufacturing (CAD/CAM) to graphics, animation, and web design software.

With such an extensive array of software it is difficult to say one particular computer meets all of these needs. However, all of these programs have one thing in common. They are all power intensive programs. You will need a fairly robust computer to run these programs.

Some schools, especially colleges, have explicit specifications and requirements for student computers. It’s a good idea to contact your student’s school to see if they have recommendations. Since they offer very attractive educational use discounts, college book stores can also be a great place to purchase computers and software.

College bound students will likely need more expensive laptop computers. Stay at home students can save money by using less expensive desk top computers. As a general rule, you can expect to pay approximately \$800 to \$1200 for appropriate systems. These may or may not come bundled with anti-virus, word processing, and spreadsheet software. Once again, it’s best to check with your student’s school to make sure to purchase compatible software.

And don’t forget a printer! You will have to choose between a color inkjet printer and monochrome laser printer. Lots of vendors practically “give away” the inkjet printer and then make their money on expensive ink cartridges.

Some of you may have gasped at these dollar figures. I'm sure you've seen the \$500 back to school specials advertised by some computer manufacturers. This type of system may or may not be a good buy.

Computer systems generally come in three different grades: "Consumer", "Commercial", and "Server." Consumer grade computers are designed to be used several hours each day at home. (This is what you will find at Best Buy, CompUSA, Sams, etc) Commercial grade computers are designed to run 8 hours a day 5 days a week. Server grade computers are designed to run 7X24X365. Rest assured every component in the computer has been tested. It has a "Mean Time to Failure" (MTF) rating. They know on average how long a component will run before it fails! Once again, ask yourself, how will this computer be used? And purchase the appropriate grade of computer. Regardless of what you buy, I strongly recommend you obtain a three year warranty.

Now let's get to some details. The main components of the computer are the processor (brains), memory (short term storage), hard drive (long term storage), and video monitor (what you look at). (There are additional considerations such as DVD and CD drives, USB and firewire ports, and sound cards and speakers.) For now, let's just consider the main components.

If you're considering a desktop Windows based computer you will need to choose between an Intel Pentium 4, Intel Celeron, AMD Athlon or AMD Sempron processor. The Pentium 4 and Athlon processors will do it all. The Celeron and Sempron processors are designed for basic computing such as word processing and surfing the internet. Do not expect good performance from a Celeron or Sempron for games, graphics, and video.

If you're considering a Windows based laptop, you will have to choose between the Intel Pentium M Processor, Intel Celeron Processor, AMD Athlon or AMD Sempron processor. The Pentium M processor is specifically designed for mobile computing using less energy (longer battery life) and creates less heat. Heat is a computers worst enemy which is why I recommend the Pentium M processor for laptops.

If you're considering a Macintosh computer, you will need to choose from the Macintosh G4 and G5 processors. The G5 is the newest, fastest processor from MAC. The G4 aint no slouch either! Mac processors have always been known for fast and high quality graphics that run circles around the Intel processors, so you can't go wrong with either of these!

Memory is measured in Megabytes (MB). 256MB Random Access Memory (RAM) is a bare minimum for any computer. I highly recommend 512MB of Random Access Memory (RAM) for any and all computers: desktop, laptop, windows or MACs!

Hard drives are measured in Gigabytes (GB). If you're doing normal kinds of things an 80GB drive will suffice. If you're going to be doing lots of graphics, video, or downloading all kinds of music you may want to consider a 160GB drive.

Video monitors come in two basic forms: analog conventional monitors and Liquid Crystal Display (LCD) flat panels. LCDs are great for saving space and do not flicker and cause eye strain. But, if you intend to do high end graphics where subtleties in hue and color really count, a graphics quality conventional monitor is better. If you have plenty of desktop space, conventional monitors will save you money as well!

Those are the basics. Everything else is just icing on the cake! Happy Computing!

Pat Jacques is a Fraser Valley computer nerd and owns Double Diamond Technologies.