

Digital Cameras

Digital photos come from the camera in a format that makes them easy to share and use. The temptation can be strong to “rush out” and purchase a camera. But what do you buy? There are many things to consider and questions to answer before selecting a digital camera.

Who will use the camera?

In this case, one question leads to others. Will the primary user be a novice or an experienced photographer? Will the photographer be a child or an adult? Digital cameras come in a range of prices starting at less than \$100 and ending at thousands of dollars. If young children are going to use the camera it's unlikely that you will invest several hundred dollars but you might be willing to spend \$150. If you are experienced with the technology or have a great deal of film camera experience then you will spend more.

How much money can be spent on the purchase?

You can bet that the quality of pictures from a \$100 camera will not compare to those produced by a \$1200 camera but cost may not be the most important consideration. Determine the top dollar you are willing to spend on your camera investment and then get the most you can for your money. Along with the camera purchase, also consider the cost of a media card for the camera, a camera bag, and the type of photo printing you will use. If you follow the advice of digital camera experts you will look closely at the *megapixels* and the *optical zoom*. For both of these features, more is better.

How will the photos be used?

If you plan to use the camera primarily for taking pictures to email to family and friends then you can get by with fewer megapixels and a lower optical zoom (you might even consider an inexpensive camera with only digital zoom). If you plan to use it to document children's work, identify areas where materials belong in the classroom, or for slide show presentations then you will want a camera with more megapixels and a higher optical zoom. For these needs, a 2 megapixel and 3X optical zoom camera is adequate. It's when you print your images for display and sharing (whether they are printed on photo paper or added to a newsletter or some other publication) that you will want a camera with more than 2 megapixels and higher optical zoom.

Are “lab quality” photos important?

Some of the latest camera-related products are printer docks. These are available in a range of prices and provide a quick way to print excellent quality photos. Selected images are printed on paper with a special finish and in sizes commonly used for photos. The beauty of these docks is that, in addition to printing photos, the camera batteries are recharged while the camera rests on the dock. Special photo paper is also available for use in desktop printers. Again, excellent quality images can be printed that result in lab-quality prints. Another option is to take your camera and/or media card to a picture making kiosk that produces high quality prints on photo paper. You might also choose to transfer your images to your computer and upload them to a website that provides fee-based picture printing services. You will receive those photos several days later in the mail. Maybe a high quality image isn't always what you need. In that case, there are times when you will want to use your desktop printer to print a photo on plain paper. The

high quality isn't there, but the picture is and sometimes printing on plain paper satisfies the need for a printed picture.

Does the camera have an expansion slot for removable media storage and what type of media does it use?

This is an important consideration when purchasing a digital camera. It is not uncommon for cameras to have 16MB of internal (in camera) storage. However, if you take pictures using the highest quality setting you might be able to take 16 – 20 shots before you run out of room. That might be okay if you are close to the computer so you can transfer pictures frequently, but it also means you might miss an important “photo op” while in the midst of downloading those images. Extra storage in the form of some type of media card takes care of that and is used in a camera to increase the picture taking capacity. Cameras are picky about their storage and will use only one kind. Some of the larger Sony cameras use a 3.5” floppy disk to store images. The smaller, less bulky cameras that are popular today are likely to require Compact Flash cards, Multi-Media cards, Secure Digital Cards, or Memory Sticks. When purchasing removable storage, shop around to get the largest number of megabytes of media storage for your money. If you don't, you will soon be wondering why you purchased such a small card. After this happens you will be searching for the media card with the largest capacity you can afford.



How easy is the camera to use?

If you think you might need to carry the manual with the camera, then you may want to consider a different brand. One trip through the manual should get you going for basic camera use. If you or those who will use the camera are new to digital photography, then look for a camera with visual clues “printed” on the camera to guide its use. Depending on your needs you might look for camera features that let you capture images quickly and allow for various light settings. You might also look for a camera that lets you review and delete photos and has a range of settings for image quality.

How easy is it to view and delete photos while in the camera?

Look for a camera with an LCD screen. It is especially helpful to be able to see the image you want to capture and it is essential in viewing the photos that have been taken. In the review process it aids in determining the photos to keep and those to delete. Deleting unwanted photos on the camera frees up room on the media card so more pictures can be taken before transferring them to the computer. Deleting pictures should be uncomplicated but not so easy as to cause accidental or unintentional deletion.

What kind of batteries work with the camera?

Batteries for your digital camera are going to cost more than the package of AA batteries you ordinarily purchase. The good news is that there are several battery options and each type will power your camera for many months. Your choices include rechargeable batteries designed for use with digital cameras, batteries (not rechargeable) made specifically for digital cameras, or lithium batteries. Another option is to purchase a camera dock that charges the rechargeable batteries that are included with the dock purchase. The directions that come with most cameras warn against the use of alkaline and common rechargeable batteries.

Does the camera have digital zoom or does it have both optical and digital zoom?

There is no small amount of confusion related to optical and digital zoom. Digital zoom enlarges the pixels in the image, crops out part of the background and stretches the image making it softer (more blurry) in the process. Optical zoom, however, magnifies the image using the camera's lenses with no loss of detail. Optical zoom can be referred as the "true" zoom and may even improve the quality of your images. Think of it as the zoom you used with a 35mm camera. Many digital photography experts suggest the optical zoom is the most important feature to look for when purchasing a digital camera.

How are the pictures transferred to the computer?

Know your computer before you purchase a digital camera. Most digital cameras use a USB connection to transfer images from the camera to the computer. If your computer is pre-USB then you will need to purchase some type of card reader. If you need to use a card reader, the media card is inserted into the card reader and an icon resembling a floppy disk icon will appear on your computer desktop. From that icon you can access your digital images. If your computer has USB connections then a cable from the camera, or from the camera's dock, connects to a USB port on the computer. In many cases when you connect the camera to the computer and turn the camera on, the software needed to transfer the images from the camera to the computer is automatically launched. Once the images are imported you can resize, remove red-eye, crop, rotate, and otherwise manipulate them. They can be organized in a manner that works for you, used again and again for signs, presentations, and slide shows, and you can email them around the block or around the world. (Kodak has *EasyShare* software that is easy to use and is a free download. To download this software visit Kodak's website at www.kodak.com)

Digital cameras are fun to use and provide immediate gratification for the photographer and in some cases for the photographed. Recent technologies make these cameras easy to use while giving excellent results. The range in prices and the availability of cameras make it possible for many to experience the excitement and satisfaction of digital photography.

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For additional digital camera information, visit the following websites:

A Short Course In Choosing a Digital Camera

<http://www.shortcourses.com/choosing/contents.htm>

Excerpts from: How Digital Cameras Work

<http://electronics.howstuffworks.com/digital-camera.htm/printable>

by Karim Nice and Gerald Jay Gurevich

For reviews and comparisons of various digital cameras visit:

<http://reviews-zdnet.com.com>

<http://www.dpreview.com/>

For more Optical vs. Digital zoom information:

http://www.photoxels.com/article_zoom.html

<http://www.usatoday.com/news/science/wonderquest/2001-11-14-digital-zoom.htm>