DECIDING ON A CAMERA TO BUY

So you want to buy a new camera. What should you get? Today there are tons of options, which is good and bad. You have a much better chance today to get the camera you want at the price you want, but you will have to do some work to find it.

Thanks to the Internet, though, you have a ready source of information to compare cameras before you purchase. And if you're near a store that sells cameras, you can try out your possible choices before you make your final selection. That will take some time, so the first thing you need to do is start early. You don't want to be rushed into a decision. Here are some things to consider before you decide.

Price: You should be able to find an excellent camera for $200-400. (See some models at the end of this paper.) You'll probably pay less online, but you may have a harder time returning it or repairing it if you need to. Personally I like buying locally from someone I know and trust, but many others have had luck buying online. It's your call.

Body Type and Size: They vary from ultra-compacts and compacts weighing only a few ounces to single lens reflex cameras (SLRs) weighing several pounds. Today they come manufactured in a variety of colors, too. Buy the camera that you like best and that feels right in your hands.

Brand: There are lots of choices here – Panasonic, Fujifilm, Kodak, Canon, Nikon, Casio, Olympus, Sony, Samsung, and more. Get the best deal you can, though if you ever want to sell your camera, Canons and Nikons tend to hold their re-sale values a little better.

Accessories: There are tons of camera accessories, some of which are included in the cost of the camera and some that aren't: carrying strap, battery case, extra battery, battery charger, extra memory card, camera bag, external flash, cleaning kit, camera manual, tripod, etc. Make sure you get a camera manual, read it and then always take it with you when you're shooting. If you lose your manual, you can always search the Internet for a replacement copy.

Resolution: 8-12 megapixel cameras are now common. If you're buying a new camera, don't settle for less than 8 megapixels. The more megapixels you have to work with in a photo, the sharper it will be when you enlarge it, especially if you've cropped it.

Display or LCD Screen/Monitor: The larger the screen, the easier it will be to see your images. So go for the 2.5-inch or 3-inch monitor. It's also a good idea to get a camera that has a viewfinder as well, so you can bring the camera to your face when focusing and shooting your photos, which tends to cut down on camera shake.

Battery: To save money, get a camera with rechargeable batteries or a battery pack. Then buy a spare set so you don't run out of battery power when you need it.

Stabilization: Some cameras have image stabilization or vibration reduction, a technology to help compensate for your camera shake. It's a nice feature to have. Just remember that you should still learn how to hold the camera steady and that the stabilization does not keep your subject from moving. If you're taking pictures in low light and your subject moves, your subjects will still be blurry. If you are taking night or long-exposure shots, you'll need a tripod.

Continuous Shooting: If you want to take a burst of photos at one time – like 5 shots in a second – to capture action, look for cameras that offer this feature. You won't use it often though, unless you're into shooting sports or active kids and pets.

Special Effects: Common ones are cool, warm, black and white, sepia, neutral, vivid, etc. This is another feature you shouldn't use very often. It's best to always shoot color. Then you have a photo that you can convert in a program like Photoshop Elements. If you shoot a photo in black and white, for instance, you can never go back and recover the color. But if you shoot it in color, you can always de-saturate a copy of the color image and you'll have both the black-and-white and the color versions.

Video: Many young people like to use this feature so it has become a standard feature. You might as well get it, too.

Lens: Zoom lenses come in all lengths. Look for something that has wide-angle capabilities of at least 28 mm and telephoto capabilities of at least 150 mm.

Optical Zoom: Lenses should have *optical* zoom of 5X to 10X. Don't buy cameras with lenses that have *digital* zoom.

Exposure Modes: Program, automatic, shutter priority and aperture priority modes are common. If you want to take total control of the exposure (i.e., set the shutter speed and aperture or f/stop), you'll need manual mode.

Self-Timer: A feature that lets you press the shutter button and have 5-10 seconds to get yourself into the photo before the shutter is actually released. It's also great for shooting long-exposure photos on a tripod. You press the shutter button and your camera has several seconds to stop shaking before taking the photo. No camera shake! Sharp photos! Make sure your camera has it.

Light Sensitivity: Sensitivity to light is measured in ISO numbers. The higher the ISO, the more sensitive the camera will be to light, which means you can take photos under lower light conditions. So, if you're outside on a sunny day, you'll use an ISO of 100-200 because there is plenty of light. If you're in an area with low light and you're too far away to use flash, you'll want to be able to set your camera ISO to 800 or 1600. So, look for a camera with an ISO range of at least 100 to 1600. Some cameras go all the way to 6400 ISO or more, which is nice to have under *very* low light conditions. But at those very high ISO numbers, you will get much more "noise," which creates grainy-looking images.

Face Recognition: A feature that allows cameras to focus on a subject's face and stay in focus, even if the subject moves. If you can get a camera with this feature, get it. It can't hurt!

Date Stamp: A very over-rated and unnecessary feature in digital cameras. Who wants to mess up their prints with a date on the bottom? If you want to know when the photo was taken, digital cameras already record that in the EXIF or metadata information imbedded in each image. Once you've downloaded the images to a computer, you can access that information, so there's no need to have the date plastered on the photo. And if you have it on your camera, turn the date stamp feature off.

Macro-Focus/Lens: If you want to take extreme close-ups of subjects or parts of subjects (bugs, flowers, anything), you'll need a macro feature . . . another nice feature to have.

Minimum/Maximum Shutter Speed: If you want to take photos in the dark (with a tripod), you will need a minimum shutter speed of 30 seconds. If you want to stop extremely fast moving objects shooting past you (race cars at Indy 500), you'll need a maximum shutter speed of 1/2500 seconds. So, look for shutter speeds in the range of at least 30 sec. to 1/2500 sec. and you'll take care of most shooting situations.

White Balance: Have you ever shot a photo and it turned out very green or blue? What's happening? Each light source – florescent, incandescent, daylight, cloudy – has a certain Kelvin color temperature that gives photos their distinct casts. So, most manufacturers have included an "auto" white balance feature that corrects the color most of the time. If you want to take more control of the white balance, look for cameras that have pre-sets for the specific types of light. If you want to take even more control, look for cameras with a "custom" white balance capability.

Shooting Programs: You'll find cameras that have pre-set "modes" that will set the camera to take photos under common shooting situations, e.g., portraits, party/indoor, night portrait, self-portrait, scenery, food, fireworks, sports, sunset, candle, beach, snow, high sensitivity, starry sky, baby, aerial, foliage, kids, pets, aquarium and hi-speed burst. These pre-sets will take some of the headaches – but also some of the control – out of your photography.

Still Image Format: JPEG is the most common format, though TIFF and RAW are available, too. JPEG files are smaller, but they are also compressed, which means you are losing some quality. TIFF has much less compression and RAW has none at all, but the files are much larger, which means they will take up more space on your memory card and your computer. No matter what format you use for your photos, always set the quality to "fine" or the highest setting available to you. Again, higher quality makes the files larger, but the photos will turn out much better. Instead of scrimping on quality, get an extra memory card!

Shutter Lag: Once you press the shutter button to take a photo, the camera has to take time to focus and determine the proper exposure before actually opening and closing the shutter. Early digital cameras were notorious for a long shutter lag so you often missed the photo you wanted. By the time the camera did all its focusing and exposing, the subject had moved! Cameras are much faster now, but still compare the shutter lag times and go for one with the fastest shutter.

Flash: Built in and pop-up flashes are common, though their flash range tends to be pretty small. Look for a flash range of at least 20 feet. If you need to reach subjects further away, consider buying a camera with a "hot shoe" to add a more powerful external flash.

Flash Modes: Again, these are pre-sets to help you set your built-in and pop-up flashes for some unique lighting situations. Usually you will use it on auto mode. But if you're taking photos on a bright sunny day, the fill-in flash mode will help you fill in the irritating shadows on your friend's face. Another common mode is red-eye reduction. In this mode, a pre-flash goes off to reduce the size of your subject's dilated pupils, followed by the regular flash. Few people like to have two flashes go off in their faces so this feature can be irritating. You really don't need the red-eye reduction feature anymore because you can easily eliminate red eyes on your computer or at the print processor.

Other Features: There are many more things to consider when buying a camera and their importance will be determined by your individual photo needs and style. These include: wireless (so you can download photos to your computer without a cord); exposure bracketing (so you can take three photos simultaneously, one with proper exposure, one under-exposed, and one over-exposed); GPS capability (so your camera records your GPS location so you'll never have to take notes again!); audio recording; direct printing capability to a printer; digital image rotation; histogram display; in-camera red-eye fix; YouTube capture mode; backlight compensation; digital noise reduction; sharpness control; color saturation control; built-in help guide; and more!

As I said at the beginning of this paper, the camera model options are limitless. Here are just some current possibilities divided by price range from sites on the web. Good luck in your search!

$150-199 Cameras: Canon PowerShot A2000IS; Canon PowerShot SD1000; Casio Exilim EX0Z77; Fujifilm FinePix J150w; Fujifilm Finepix Z5fd; Nikon Coolpix S4 Digital; Panasonic Lumix DMC-LZ8; Panasonic Lumix DMC-LZ10; Panasonic Lumix DMC-TZ4; Samsung Digimax S1050

$200-299 Cameras: Canon PowerShot SD770 IS; Canon Powershot SX100 IS; Canon PowerShot SX110 IS; Casio EXILIM ZOOM EX-Z250; Kodak Easyshare Z812 IS; Olympus Stylus 790 SW; Panasonic Lumix DMC-TZ5; Samsung NV10; Sony Cyber-shot DSC-W90

$300-399 Cameras: Canon PowerShot SD40 ELPH; Canon Powershot SD990 IS; Canon PowerShot SX10 IS; Fujifilm FinePix S8000fd; Kodak EasyShare V610 Dual Lens; Panasonic Lumix DMC-FX500; Panasonic Lumix DMC-TZ50; Sanyo VPC-CA6 Xacti; Sony Cyber-shot DSC T200

Created by Wayne Brabender, Wisconsin 4-H Photography Specialist