

# Chapter

# 1

## Getting Ready to Take Pictures

No matter what camera you have, you can customize it so that it works really well for you. Camera manufacturers make a lot of decisions about how a camera works based on what they think photographers who might buy a particular camera will need or use.



However, manufacturers can only guess, and sometimes, the default settings of your camera are designed for the needs of the average photographer; as a result, they are not optimal for a person who wants to take better photographs.

Is your camera set up right to support your picture taking? In this chapter, you will learn the basics of getting ready to take great pictures with your camera.

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# Set Up Your LCD for Optimum Use

The LCD on a digital camera is a wonderful invention. It gives you an accurate view of your subject so that you see exactly what you are going to get in your photograph. But in order to get the most from your LCD, you need to use

the camera's menus to make some choices about how it works. You want to be sure it is helping you, not holding you back. Here are some tips in setting up your camera for the best use of your LCD.

## Review Time

After you take the picture, the actual image shows up on most LCDs. This image review gives you a quick look at what your photo looks like. For example, you can quickly look to see that it is sharp, and that your subject's eyes are open. You know immediately if you need to make changes to your photography.



## Set Review Time

On most cameras you can set review time between about 2 and 10 seconds in the camera or setup menus. Short times are not of much value because you really cannot evaluate much of what is in the picture. Try 8 to 10 seconds. Once you have seen enough, press the shutter release lightly, and the review goes away. If the time is too short, you simply press your playback button for a longer view.



## Auto Rotate

Most digital cameras today automatically rotate a vertical picture so that it shows up vertically in the LCD when you hold the camera horizontally. Unfortunately, a vertical picture does not fill the horizontal space and uses the LCD inefficiently. You can get the most from your LCD and get the largest picture possible if you set the camera so that it does not auto-rotate vertical pictures. The Auto Rotate setting is usually in the playback or setup menus.



## Camera Sleep Time (Auto Power Down)

A frustrating thing for digital photographers is to try to take a picture and find that your camera has gone to sleep. Most digital cameras have the auto power down time set too early. This setting is usually in the setup menu, and a good setting would be 2 to 4 minutes for most people. You can set this time longer, but then you could be using your battery more than you want to.





# Viewfinder or LCD — Which to Use?

Many cameras have both a viewfinder and an LCD. Viewfinders can be either optical or EVF (short for electronic viewfinder). A viewfinder only works when you hold your eye up to it. Most people use the LCD when possible because it seems so natural to do. And some

cameras do not even have viewfinders. Why would you want to use a viewfinder compared to an LCD? There are some distinct advantages to both. Knowing the possibilities of a viewfinder can help you use your camera better.

## Use the Viewfinder in Bright Light

LCDs can be hard to see in bright light, especially when there are bright subjects that you are photographing. Because an optical or electronic viewfinder limits extraneous light, and your head blocks more light, both allow you to see the subject better for framing in those conditions.



## Use the LCD Inside

The LCD is ideal for shooting indoors. It has a consistent brightness, even if the light is low, which makes it easier to use than a viewfinder in those conditions. It also shows you if your exposure and white balance are correct so that you can get the best-looking image.

### Use the Viewfinder for Moving Subjects

Movement can be hard to follow with an LCD held away from your face. This is where a viewfinder comes in handy. You have to have the camera up to your eyes to use a viewfinder. This makes it easier to follow movement (the camera simply follows your gaze), and distracting movement around the camera and LCD is blocked from view and not seen. Optical viewfinders are especially good for action.



### Use the LCD for Close Shooting

Your LCD is showing you exactly what the lens is seeing on your camera. A separate optical viewfinder as used on compact digital cameras has its own lens system, and so it is seeing something slightly different. At a distance, this does not matter. But when you get up close, the optical viewfinder may not frame the scene correctly, which can mean that parts of your subject get cut off. You never have that problem with the LCD.



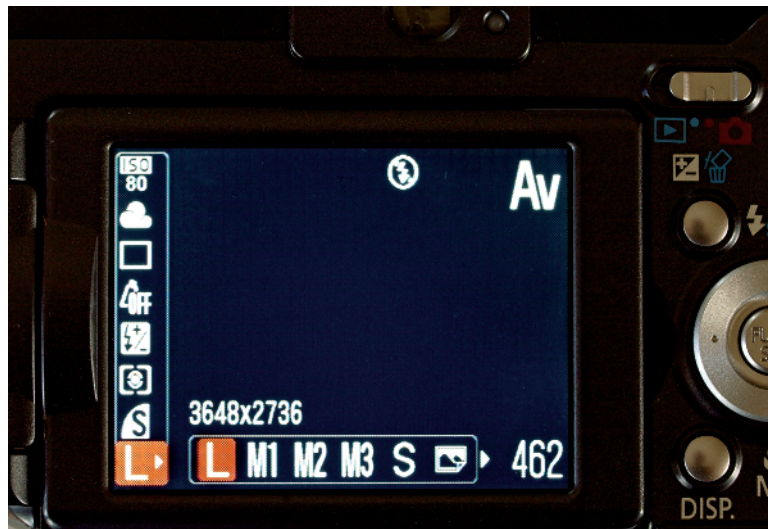
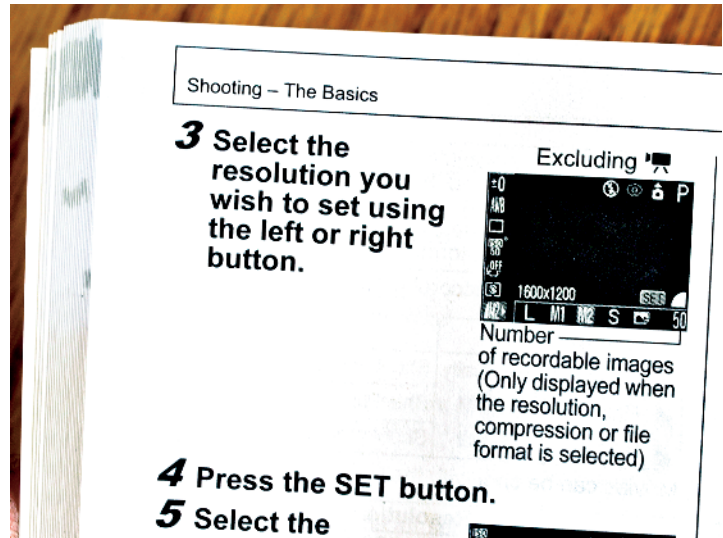
# Choose a Resolution and File Type

Your camera comes with a certain resolution, such as 10 or 12 megapixels. This resolution strongly affects the price of your camera and the capabilities of the sensor. Your camera also comes with a default setting for the file type and compression that may or may not be best

for you. Understanding a little about resolution and image files will ensure that you make the right choices for the highest-quality photos. This will also mean you get your money's worth from your camera and sensor.

## Find Your Settings

Resolution and file type are settings that affect image size and quality. They are usually found in the camera operation section of the menus for your camera. Unfortunately, camera manufacturers have not made the icons for these settings consistent, and so you may have to check your manual.

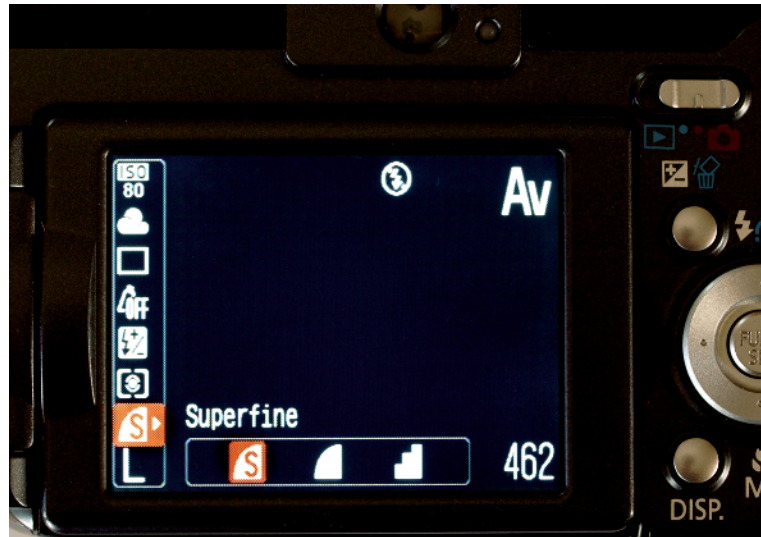


## Use Your Megapixels

A common way of showing image size is L, M, and S (for large, medium, and small resolution). Large uses the full size of your camera's sensor, giving you the megapixels you paid for. Use it. Only use the smaller sizes if you really have to get small photos, such as for a Web site, and you are sure that you will never need a large photo.

### Choose JPEG with High Quality

The default image type for most digital cameras is JPEG shot at medium compression or *quality* (quality refers to how the image is compressed for size). For optimum JPEG images, choose the highest-quality compression, such as Superfine. This makes files a little larger, but not much, and so you might need a slightly larger memory card to handle larger file sizes.



### What About RAW?

Some compact digital cameras and all digital SLRs include an image type called RAW. This is a special format that saves far more tonal and color information from the sensor than JPEG offers. It is very useful for photographers who want to do extensive processing on their images in the computer. It does not have more detail than a JPEG file (that is dependent on megapixels).



# Choose a Memory Card

Your camera is built to hold a certain type of memory card. A memory card stores your pictures, and you save photos to it or erase photos from it. These cards come in a variety of types such as CompactFlash or SD cards, but your camera is only designed for one type

(except for a few digital SLRs that have slots for two). While you cannot decide what type to use, you do need to decide how large a card to get and whether a certain speed will affect this choice.

## Memory Card Types

You should know your memory card type so that you can recognize it in a store and be sure you have the right type. Each card type is quite different in size and shape. Open the door to the memory card slot on your camera, and take out the memory card to see exactly what it looks like (be sure the camera is off when you do this).



## Choose Memory Capacity

Memory cards have become less expensive for more capacity. It is easy to find 1- or 2GB cards at very affordable prices. The larger the capacity, the greater the number of images you can store. Capacity is key with higher-megapixel cameras, and especially for RAW files. A 2GB card is a good starting size and will hold about 500 standard quality, full-resolution JPEGs from a 10 megapixel camera.

### How Important Is Memory Card Speed?

You will often see memory cards listed with speeds — 80X, 100X, and higher. This does not speed up your camera. It affects how fast images are recorded to a memory card from the camera's memory buffer. Keep in mind that not all cameras support high speeds. Speed can also affect how fast you can download images to your computer.



### Download from a Memory Card

A simple way of downloading photos is to use your camera and the cable that came with it. A better way is to get a memory card reader. A memory card reader is usually faster, takes up little space on your desk or computer, and never has problems with battery power (if your camera loses power while downloading, you can lose your photos).

# Hold the Camera for Sharpness

Digital cameras are capable of truly excellent sharpness. Yet all too often photographers are disappointed in blurry photos. They look unsharp, and people often blame "cheap cameras." Yet, the number one cause of blurriness is camera movement during exposure.

How you hold the camera and release the shutter can determine whether you capture a sharp or blurry photo. This will be especially noticeable if you want to enlarge the image in a big print.

## Camera Movement Causes Blurry Photos

When a camera is handheld, it can move slightly while the camera is taking the picture. As shutter speeds get slower, this means blur in your photo, and sharpness that is much less than your camera is capable of. Even if the blur is not obvious, it can still be there, degrading the contrast of the image. No amount of work on the computer can make these images truly sharp.



## Support the Camera Well

Support your camera to minimize camera movement. With a digital SLR, put your left hand, palm up, under the lens, with your right hand gripping the side securely. With compact cameras, keep both hands gripping the sides solidly (no one-handed shooting!). Then keep your elbows in to the side of your chest as you photograph, in order to keep arm movement to a minimum.



### Squeeze the Shutter

Holding the camera securely does not help if you punch the shutter button. Put your finger on the shutter button, and then squeeze your finger down in a smooth motion to push the button and take a picture. Keep your finger depressed as the shutter goes off, and then release it gently.



### Turn Your Car Off for Sharpness

Go to any national park, and you will see people driving along, photographing from cars, bracing their arms against the frame of an open window. A moving car, combined with the vibration from the motor, always causes problems with camera movement and blurry photos. For optimum sharpness, stop the car and turn off the engine for the picture. At the minimum, avoid leaning against the car frame if the car is running.



# Choose a Program Mode

Digital cameras typically have a choice of several modes of operation that affect exposure and how an image is captured. These programmed ways of operating the camera offer you options that affect how you can get the best pictures of a particular subject or

scene. They are often set up for specific subjects or types of scenes so that the camera can be quickly prepared for them. By understanding a bit about them, you can quickly choose what works best for you.

## Exposure Mode Choices

Cameras have to be set for a proper exposure. That includes both a shutter speed, which affects action, and an aperture or f-stop, which affects depth of field (sharpness in depth). These settings also affect how much light comes through the camera. Exposure modes change how these controls are chosen — that is, how much is done by the camera's internal electronics and how much you control.

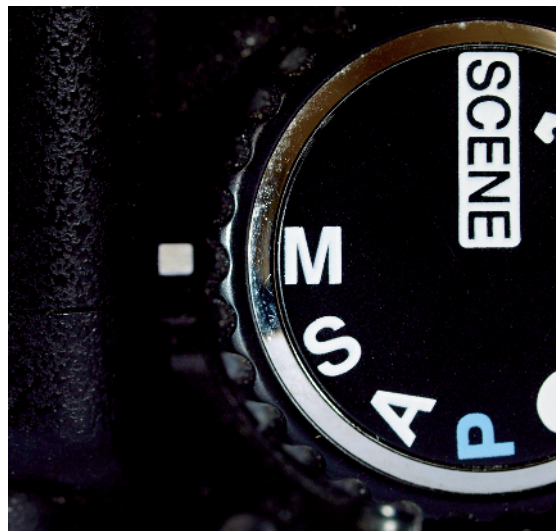


## Program, Aperture-Priority, and Shutter Speed-Priority

All digital SLRs and many small digital cameras include the modes P for Program, A or Av for Aperture-Priority, and S or Tv for Shutter Speed-Priority exposure. The camera chooses both shutter speed and aperture in P, making it good for quick shots. In A, you choose an aperture for depth-of-field, and the camera sets the shutter speed. In S, you choose a shutter speed, and the camera sets the appropriate aperture or f-stop.

## Program Modes

Many popular cameras include special program modes that are designed to make decisions easier about setting up a camera for specific subjects. You will find options such as Landscape, which affects exposure, color, ISO setting, and white balance for scenic pictures; Portrait, which affects the same things for close-up shots of people; and Sports, which is designed to optimize the camera for action.



## Do You Need Manual?

Manual is a mode where you set all exposure parameters yourself. Many photographers never need it, but it is helpful when conditions seem to fool all the other modes. In Manual mode, you can set shutter speed and f-stop based on how the meter works in your camera, take a picture, and then check your exposure in the LCD. If the exposure is not what you need from a scene, you can then change the shutter speed or f-stop until it is right.



# Using Your Camera's Autofocus

Autofocus, or AF, is a great innovation. The camera works with the lens to determine where the lens needs to focus. AF helps your camera and lens find the right things to make sharp in your scene. That makes it easy to photograph

quickly, but AF can also focus in the wrong places. However, you can learn how to control it. A few simple techniques will help you ensure that the autofocus is finding the right part of your scene to focus on.

## Focus Points Are Important

One of the most annoying things for a photographer is to have a nice picture where the focus is in the wrong place. For example, you have a great shot of grandma, but she is not sharp, though the tree behind her is. Or your beautiful flower stays blurred while the woodchip mulch behind it is sharp. Learn to look quickly at a scene so that you know which are the most important points that must be sharp.



## Lock Focus on Your Subject

Once you know what has to be sharp, point your camera, set it on single-shot AF at that point, and then press your shutter button slightly to lock focus. The camera usually beeps or gives some other indicator of focus. While still pressing the shutter button, quickly move the camera to frame your shot properly, and then take the picture. Some cameras also have separate focus lock buttons.

### Use Continuous Autofocus for Action

If you are photographing a sporting event such as a kids' soccer game, you usually cannot lock focus because of the continuous movement. Change your camera to continuous AF if it has that choice. Now the camera continuously focuses as you shoot the action. Sometimes the action will be too fast for it to keep up, but mostly it will keep finding the right focus as the action progresses.



### Start Autofocus Early

Any AF system needs some time, however brief, to examine the scene, determine the focus point, and focus the lens. If you wait until you need that focus, especially with a moving subject, then you will often miss the shot because of this time delay. Start your autofocus early, before you need it, by lightly pressing your shutter button enough to get AF going, but not enough to trip the shutter.