Chapter 1

Composition, Lighting, and Posing: Some Tried-and-True Advice

Whether you're using a traditional film camera or a fancy new digital one, composition, lighting, and posing play important roles in your photos. Taking pictures is at least as much an art as a science. Learn from the classics. The basic rules of portraiture and landscape art are as applicable to digital (or film) pictures as they are to traditional canvases. As you will discover in this chapter, it's important to think about how you should place your subjects, light them, and frame them with your camera. The time-tested techniques and tips described here will help you create better, more professional snapshots, while taking advantage of the special features provided by your digital camera. Learn to combine the traditional with the state-of-the-art, and you'll be richly rewarded by the results.

This chapter covers the following topics:

Compose your shot with care

Use light effectively

Understand depth of field

Achieve natural poses

Focus sharply

Tips of the trade

Compose Your Shot with Care

Do you remember that joke about Mozart (the one in which he is busy decomposing)? In photography, composition doesn't mean creating music. Instead, it refers to the way that the photographer places all of the visual elements of a picture. Good pictures don't happen by accident. Good pictures result from planning and following the basic rules of composition; the better the composition, the better the photograph. If you think that you take pretty good pictures now, you'll be astonished how quickly your snapshots improve when you apply the basic rules of photographic composition.

Get Closer…Much Closer!

Do you know the single worst mistake that amateur photographers make? They shoot pictures from too far away. They think they need to capture the whole scene instead of just the real point of interest. This one bad habit makes for many bad photos.

You can easily improve your photos with one quick fix: Move closer. The closer you get to your subject, the better your photos will turn out. Some people operate under the mistaken impression that you need to take pictures of an entire landscape or an entire person—including all the hair, limbs, clothes, and so forth—in order to create a memorable shot. On the contrary, your photos should focus on a point of interest. For example, when your subject is a person, think of the eyes as the most important part of your photo. The more you concentrate on a person's face—and, particularly, a person's eyes—the better your photo will turn out.

Consider the three photos shown in Figure 1.1. With each photo, the camera moves in toward the subject. See how the pictures improve with each step? Getting closer creates snapshots that focus more narrowly on the subject while creating a sense of intimacy between the subject and the viewer.

Figure 1.1
Don't be afraid to close in on your subject.

From too far away, the subject is completely lost in the picture. The real center of interest occupies only about one-sixth of the total photo.

Moving closer improves the picture, but the ratio of background to subject is still too high. At this distance, a picture taken in portrait mode would work better than one in landscape orientation.

Use the Rule of Thirds

Long ago, in ancient Greece and Egypt, philosophers noticed a strange feature of beauty. Many things we find attractive incorporate a natural ratio of approximately 3:2, which the Greeks called *Phi* (rhymes with *tie*). This ratio came to be known as the golden ratio, or even the divine ratio. The ancients used this ratio to create art and architecture to mimic the beauty one finds in nature. The idea is this: Compositions that are split into thirds, with some feature placed about two-thirds of the way across the scene, look good. It's as simple as that.

Artists and, later, photographers picked up on this ratio to form the rule of thirds, which we use in composition. This involves placing visually interesting points along imaginary lines at one-third and two-thirds of the way across a picture. But the adherence to using Phi goes further than that. Even the most common print sizes (3.5×5, 4×6, 5×7, and so forth) approximate the golden ratio between their width and their height.

You can improve your photos by using this rule of thirds. Just imagine two pairs of lines. One pair runs horizontally across your picture at one-third and two-thirds of the height. The other pair runs vertically, again at one-third and two-thirds of the width. When framing your image through the viewfinder or on your camera's liquid crystal display (LCD) screen, place the most important features of your picture along one of these lines. Whether you shoot your pictures in Landscape or Portrait mode, this rule will improve your picture's composition.

Most digital cameras now ship with both a traditional viewfinder and an LCD screen. While some people prefer using the viewfinder to "point and shoot," others like the convenience and preview features of the LCD screen. Whichever feature you use, remember to frame your pictures carefully before pressing the shutter release.

Finally, close enough for a great picture.

If you're not comfortable "imagining" the lines, you can actually place them onto your camera's LCD screen. Simply cut out some transparent plastic, draw your lines on it, and apply it to your camera's display. Plastic used for making viewgraphs or transparencies works particularly well for this purpose. If static electricity doesn't keep your plastic attached to the LCD screen, use a little transparent tape.

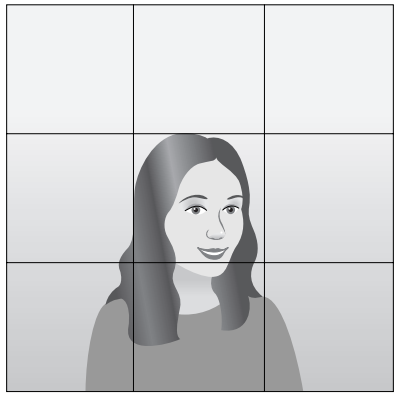
The illustration shown in Figure 1.2 shows the differences between images composed with and without using the rule of thirds. Notice how both portrait and nature shots improve when this rule is applied.

When using the rule of thirds, it doesn't matter on which of the lines you choose to set your visual focus point. Use any of the four lines or four points (where the lines intersect). Your photos will improve.

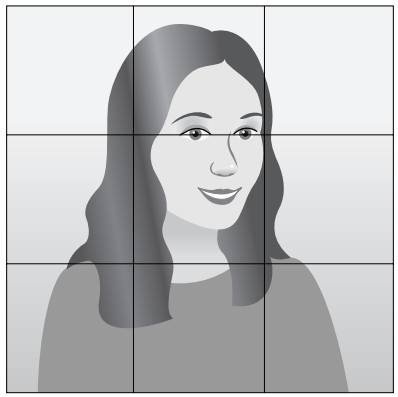
Simplify Your Background

One of a photographer's biggest goofs is to allow the background to be too cluttered with objects and people. Busy backgrounds distract the eye from your main subject, drawing attention away from what you should really be looking at. Contrast the pictures in Figures 1.3 and 1.4. See how the picture works better with less happening in the background?

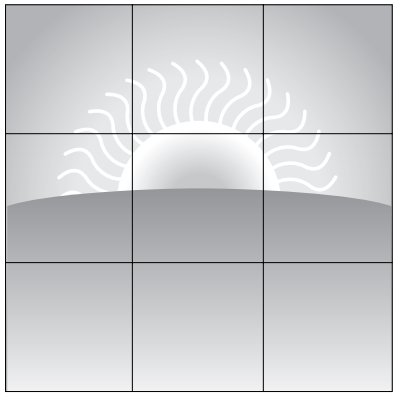
Figure 1.2
The rule of thirds will improve your shots.



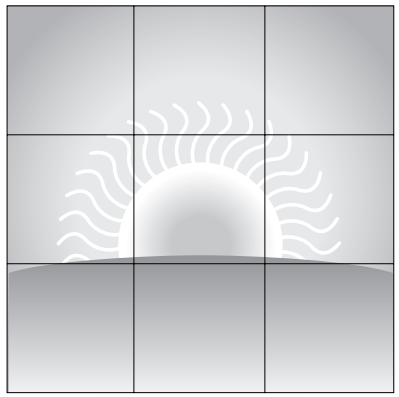
Composed without using the rule of thirds, a picture is not visually interesting.



Positioning the eyes on the top line improves the picture.



The horizon rests directly in the middle of the picture.



By shifting the horizon down to the bottom line, the rule of thirds improves the picture.

Figure 1.3
A complicated background detracts from your portrait.

Figure 1.4
A simple background allows your picture to emphasize your subject.

You can easily solve the busy background problem. Consider these hints:

Avoid busy scenery. The simplest solution is the most obvious. Take pictures away from cluttered areas. Choose a plainer backdrop for your snapshots.

Move the camera. Sometimes you can avoid visual clutter by adjusting your viewpoint. Try walking around your subject with your camera until you find a more flattering angle.

Move closer. The more subject the picture contains, the less background your picture shows.

Drop down. By shooting up at your subject, you can sometimes avoid a lot of eye-level clutter.

Take a portrait. Turn your camera 90 degrees and shoot in Portrait mode rather than in Landscape mode. Portrait shots limit the amount of background and show more of your subject.

Frame It!

Shooting your picture through a natural frame can add elegance to your pictures. Natural frames include windows, doors, and tree limbs, as well as other overhanging features. Adding a frame to your picture can make it look better. This works by directing the eye toward the subject. Figure 1.5 shows an example of how you can shoot a "framed" shot.

> Watch out for your depth of field—make sure that both your frame and your subject stay in focus! Frames don't work well if either they or the subjects slide into fuzzy obscurity. See the "Understand Depth of Field" section later in this chapter for details.

Figure 1.5
Keep your eyes open to find natural frames for your shots.

Choose the Best Camera Angle

Did you know that your point of view could dramatically change the way that you perceive a subject? When a camera shoots down, we tend to think a subject looks smaller and humbler. When the camera looks up, we think the subject looks bigger and stronger. These camera angles mimic the way that we have learned to look at things and people during life. Consider the viewpoint of an adult looking down at a child or a child looking up at an adult, and you can understand how the direction of a photo can resonate with personal experience. You can take advantage of the way that we naturally interpret these angles to add meaning and effect to your pictures.

Downward Angles

You can make your subjects seem smaller and more appealing by shooting down. This angle can make a young girl look more demure. It can make a child seem more childlike or an adult less imposing. Downward angles emphasize eyes and cheeks while minimizing chins. Large cheeks and small chins correlate with the way we view children. Figure 1.6 shows a person shot at a downward angle.

You can use a downward angle for good or for evil. Many political photographers shoot down when they want to humiliate or minimize a politician or public figure. Because we identify downward shots with an adult viewpoint, these pictures can make people look less important.

Figure 1.6
Downward angles emphasize cheekbones.

Downward angles also make pictures feel more closed and complete than other angles do. When taking photos of the outdoors, a downward shot where the horizon appears high in the picture will produce a feeling of limits and claustrophobia. You can also use a downward angle to hide an ugly, overcast sky, as in Figure 1.7.

Upward Angles

You can make your subjects appear bigger, more imposing, and more demanding of attention just by lowering your camera and looking up. Use this camera angle to flatter your subjects and make them seem more important. You need not limit this technique to photos of people. Take an upward-pointing picture of your dog to show how strong and fierce he is. Take a picture from the bottom of a statue to emphasize its height and majesty.

The upward angle lends prominence and strength to both the subject and to your photos. This technique particularly emphasizes the chin, lending a sense of power to your subject. Figure 1.8 shows an example of a person shot at an upward angle.

Upward angles open up pictures by lowering the horizon, as in Figure 1.9. They lend a feeling of spaciousness and freedom without limits or restrictions. When shooting outdoor photos, use an upward shot to draw in the sky and capture the full magnificence of nature.

Figure 1.7
A downward angle hides the sky and creates a sense of enclosure.

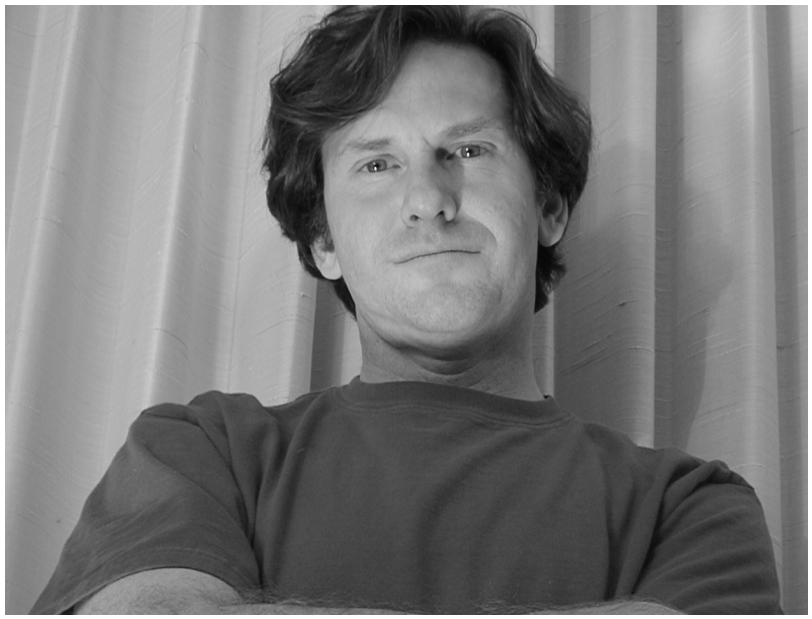


Figure 1.8
An upward angle emphasizes a subject's importance and authority.

Figure 1.9
An upward shot creates a sense of openness and possibility.

Straight-on Shots

The straight-on, neutral shot is the bread and butter of photography. This shot creates plain and undistorted portraits of your subject, as you can see in Figure 1.10. Use this angle when you're not trying for artistry or special effects. It's straight, honest, and simple. It may be boring, but it works for almost all of your photography needs.

Figure 1.10
A straight-on shot creates a direct connection between your subject and the camera.

Horizontal or Vertical Orientation?

As you've probably noticed, photos tend to come in one of two orientations. In the vertical portrait shot, the height exceeds the width. In the horizontal landscape shot, the width exceeds the height.

Horizontal and vertical compositions create different effects. Vertical photos capture individuals and small groups best, at the expense of the background. Horizontal shots, in contrast, are best for large group shots and general photography of people and nature. Figure 1.11 shows how using a vertical shot can improve a portrait photo.

Because of its more generalized nature, the typical camera creates horizontal shots by default. To take a vertical picture, just turn the camera on its side and shoot. Many tripods allow you to mount your camera for either vertical or horizontal shots.

Figure 1.11
Vertical composition improves a portrait.

Horizontal composition includes too much background for a portrait.

Vertical composition captures more of the individual.

Face Your Subject to the Center

The way a person faces, called a *leading look*, can direct attention into the picture or out of it. Looking out of the picture produces photos that don't quite work, as you can see in Figure 1.12.

Figure 1.12
A leading look out of the picture can ruin a pose.

Ask your subjects to look toward the center of your photographic frame, or move the camera and your composition until their pose works.

Avoid Unwanted Background Elements

Sometimes we forget to look at the background. We become so fixated on our subject's great expression or adorable pose that all sorts of unwanted visual details pop into our photos, unannounced. Often we don't notice the other elements until too late, when the moment has already gone, and then we're stuck with pictures that have little "problem" items all over the place.

You can learn to break out of the whole subject-fascination trance and avoid the pitfalls of unwanted elements in your photos. Start by thinking before snapping your photos. Take a good, long look at the whole picture. What items don't belong? What can you improve simply by moving an item—or yourself—to another location? It's easy to get rid of unsightly details. The problem is noticing them in the first place! The pictures in Figure 1.13 show the difference between just shooting a photo and noticing the background first.

The worst offender for this sort of photography is the classic "tree growing out of someone's head" shot, seen in Figure 1.14. By concentrating on your subject, rather than the background, you may end up with a telephone pole, sign, or tree sprouting from a head. Remember the basic rule: Stop, look, and if necessary, move! Only then should you snap.

Figure 1.13
Plan your shots.

This photo will work better without seeing the contrast between the brick wall and the ground.

This electrical outlet is distracting.

The photo is greatly improved without the background elements.

Figure 1.14

If you don't notice the background, your subject may appear to have a tree growing out of her head.

In some cases, you can fix background problems by using photo-editing programs. For some suggestions, see Chapter 4, "Digital Photo Editing."

Use Light Effectively

As a digital photographer, you need light. For obvious reasons, without light, you cannot take pictures. And without good lighting, you cannot take good pictures. Good lighting makes the difference between drama and melodrama, between splendor and ordinary, and between memorable and dull.

Sunshine can be your best friend, or it can be your worst enemy. While you're letting it fill your camera with brilliant colors and images, remain wary. Learn to tame and control it. Make it do what you need it to do. Natural sunlight creates the most dramatic and colorful scenes. It can also fool your camera. It can make your pictures harsh and unflattering. It can bleach images to near whiteness or hide your subject in an artificial darkness.

You can improve your digital photography by learning to use light effectively. By following simple guidelines, you can ensure that your pictures turn out the best they can be—whether you're shooting indoors or outdoors, or in bright light or near darkness.

Avoid Backlight

Backlight occurs when the sun (or, for that matter, any other light source) shines too close to your subject's back. Backlight tricks your camera into thinking it is taking a picture of a very bright object. Your camera adjusts its light levels too high. Instead of picking up the light levels from your subject, it picks them up from the scenery. While the scenery appears beautiful and well lit, your subject looks awful—usually as a silhouette against a bright and colorful background.

To avoid backlight, keep the sun behind you and in front of your subject. This allows your camera to properly interpret your exposure settings.

You may need to physically move yourself and your camera to find the proper lighting. If you cannot reverse direction completely, such as when you are taking a picture of someone standing outside a famous monument, move in a circle around your subject until you find a happy compromise.

Some digital cameras automatically "handle" backlight, usually by turning on the flash. You can, too. Set your camera to use its flash and ignore the ambient lighting. The pictures in Figure 1.15 show how the flash will compensate for backlighting. However, even though using the flash will fill in your subject, this method does not produce particularly wonderful pictures. Your subject's features will appear "flatter" than in natural light. Instead, try to avoid backlit conditions completely whenever possible.

Use Indirect Light

A face full of sunshine is about as flattering as mud. Sunshine fills a face with harsh, unpleasant shadows. People look haggard, tired, and old. Every wrinkle is brought into full prominence. Shadows on the neck add an extra chin or two. Add squinting eyes into the mixture, and you have the lighting environment from hell.

Figure 1.15
Backlight can ruin a picture.

With the sun behind her, the subject's face is dark.

When you cannot avoid backlighting, use the flash to fill in your subject's features

Fortunately, there's a quick fix: Move your subject into the shade. Look for a tree, an overhang, or a trellis. Wait for a cloud to cover the sun, or shoot your pictures on a hazy or overcast day. Although most people think they need to take pictures in the brightest sunlight possible, you can snap excellent photos under covered patios or shadowed overhangs, as shown in Figure 1.16.

Unlike direct sunshine, indirect light creates soft and beautiful pictures. It flatters your subjects rather than batters them. Indirect light means exactly that. Instead of light streaming directly from the sun onto your subject, it bounces off the walls, the ground, and the scenery around you. You still get plenty of light, but it's a different, more playful, and far more flattering light. Figure 1.17 shows how indirect light can create a great portrait.

When you cannot avoid full sunlight, use your flash to fill in some of the harsher shadows. Set your digital camera's flash to its always-on setting and take your pictures. Although indirect lighting produces better pictures, your flash will counteract some of the worst shadows. On the other hand, when you have good indirect light available to you, turn that flash off!

Pick a Good Time of Day

Contrast the warm, soft colors of sunrise and sunset with the harsh noonday sun. When you take out your camera, consider how the time of day will affect the light. Choose a time that matches the mood you need. At midday, sunlight is strongest and most direct. Light appears to be at its whitest, colors at their most true and vivid. At sunrise and sunset, the color of light deepens and changes—often minute to minute. Colors are redder, kinder, and more dream-like.

Use these changes in light to your best advantage. If you plan your photo shoots in advance, consider how the time of day will affect your images. Do you want to create a romantic portrait? Perhaps you should wait until late afternoon or early evening. Are you seeking a dramatic landscape showing a lot of detail? Midday should work better. And don't forget those great sunset shots. When the last rays burn over the horizon, turning the clouds to fire, don't miss having your digital camera in hand and ready to shoot.

Figure 1.16
Use Indirect light whenever possible.

Squinting in the direct sunshine

Cooler in the shade

Step to a Window

Sunlight streaming through a window creates the most dramatic light of all. As it gently caresses your subject's face, get ready to snap terrific portraits. Nothing comes close to the beauty of the classic "sitting by the window" shot. Figure 1.18 shows an example of this type of photo.

Use all sorts of windows. Consider photographing a child playing by a sliding glass door. Take a picture of another passenger while inside your car. Go to public galleries such as museums or libraries where windowed light is plentiful. Place your subject next to the stained glass in a chapel. Be creative. Use a window with sheer curtains blowing in the wind. Examine the light streaming through Venetian blinds in bars of brightness and darkness. Have your subject look outside through the window or just sit, lost in contemplation. The possibilities are endless. Wherever you find a well-lit window, you can create beautiful and exciting pictures.

When shooting your camera directly toward a window, don't forget to turn off the flash!

Create Unnatural Light

Did you know that you can create your own portrait studio for under $20? You just need a few simple items. Most of them are probably lying around your house. The rest you can easily pick up at a local camera or hardware store. Don't let a small budget keep you from taking terrific pictures.

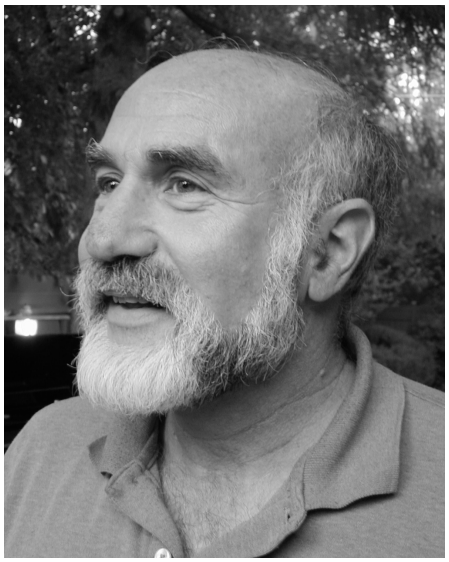


Figure 1.17
Indirect light avoids harsh shadows.

Figure 1.18
Windows provide dramatic lighting opportunities.

The Right Equipment

Here's a list of the basic equipment you need to put together your home studio:

A sheet Any sheet will do, although flat works better than fitted. You will use this sheet to create a uniform backdrop. In general, the more neutral the pattern, the better. The focus should remain on your subjects rather than the cute linen dinosaurs behind them.

Duct tape Duct tape is the home handyman's best friend. Let it become your friend, too.

Photographic-quality floodlight bulbs You'll need one or two floodlight bulbs. Erica uses General Electric's PhotoFlood bulbs. They cost about $4 each at her local camera shop. She prefers to use the ones with blue coating, as the plain ones create light with a distinct yellowish cast. The blue bulbs avoid this problem, albeit with some loss of luminescence.

Aluminum clamp work lights You'll need one or two lights for your bulbs. You can pick these up at your local hardware store for under $5. Make sure to choose work lights that can handle the heat from your floodlight bulbs.

Various props Props make a more interesting portrait. You can use chairs, stools, hats, artificial flowers, stuffed animals, and so forth.

Your Setup

Once you've done your shopping, follow these steps to get your studio up and running:

1. Pick a quiet part of the house. Try to find a room that doesn't get much traffic.
2. Duct tape your sheet to the wall. (You may want to check with your spouse or parent before you do this.) Avoid damaging your walls where possible.
3. Screw your floodlight bulb into the work light and clamp it near an outlet. (If you cannot get close to an outlet, use an extension cord.) These lights get very, very hot. Keep them away from children and any flammable objects!
4. Bounce your light off a wall or ceiling. This creates a softer and more indirect light.
5. Pose your subjects with your various props.
6. Get set, aim, and shoot!

Photographic floodlights get very hot. Use extreme caution when placing them to avoid fire hazard. These lights can burn your skin. Keep children away from your studio when the lights are on and until they have cooled off and been put away properly! Never leave these lights on and unattended.

Figure 1.19 shows an example of a home studio setup.

Tips for the Home Studio

When you're ready to start taking pictures in your new "studio," keep these tips in mind:

Turn off your flash. Flash photography in these conditions can flatten the faces of your subjects, removing features. Instead, set your digital camera to suppress the flash and let the indirect light from the floodlights create more "natural" lighting. If you cannot figure out how to turn off your flash, tape a small piece of tissue over it. This will soften the flash instead.

Move away from the wall. Place your subjects at least a foot or two away from your backdrop. This softens shadows and de-emphasizes the backdrop.

Turn off fluorescent lights. If fluorescent bulbs normally light your home studio, turn them off. These lights can create weird, greenish overtones in people's faces.

Use extra sheets. If your studio's walls are dark, duct-tape a light-colored sheet to a nearby wall. Bounce your floodlight off the sheet rather than off the dark wall. That way, more light will travel to your subject.

Figure 1.19
Set up your own home studio.

Shoot in Low (or No!) Light

You can take surprisingly good digital photos in low-light conditions. Of course, your most important tool for working in the dark is your camera's built-in flash. Your flash will trigger when light conditions drop below a certain threshold. Also, some cameras allow you to take long exposures, so you can take pictures in near darkness. Keep in mind how to combat the constant enemy of flash photography—the dreaded red-eye effect—and you will be ready to start snapping your shots in the shadows.

Come to the Dark

Why not take a picture in complete darkness? Erica attended a party high up in the Colorado mountains, far from any city lights. Her host walked them back to the car, using a flashlight to guide their steps. Just as they reached the car, she decided to test her camera's flash. She had her host turn off his lantern, and she took a picture of him in the complete darkness. With only a flash to light up her shot, she was able to snap the fairly nice portrait shown in Figure 1.20.

Figure 1.20
With a flash, you can take pictures in complete darkness.

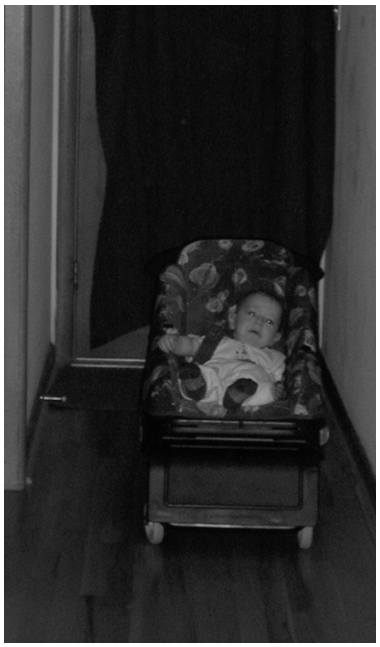
Of course, most photo opportunities don't take place in total darkness. You may take a picture indoors during a party. You may be sitting outside during twilight. If, for whatever reasons, the ambient light is too low, use your camera's flash to help you capture the moment. Your pictures may not turn out as artistic or beautiful as those shots for which you've planned dramatic lighting, but you will not have missed the chance to capture images of a special event or person.

To use your flash, keep your camera set to Automatic mode. This mode allows your camera to determine when and if a flash will be needed. Because most of us want to take pictures on the spur of the moment, it's best to leave your camera in Automatic mode most of the time. When you're ready to work with lights and poses, that's the time to turn off the auto-flash feature. Until then, leave it on. You never know when a special moment will come by.

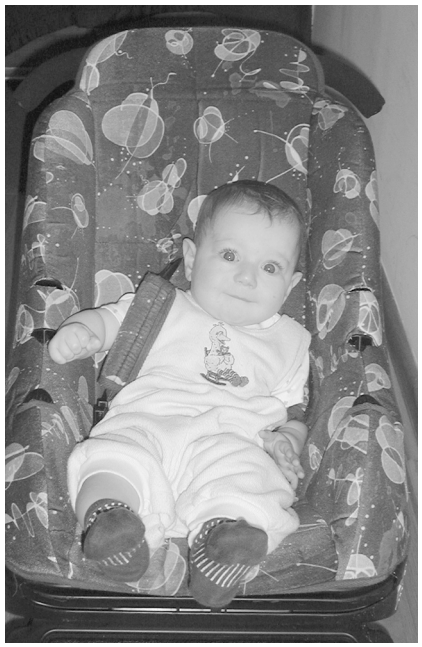
Most digital camera flashbulbs have a limited range of effect. Often, this runs to about 10 feet. As you move farther away from your subject, the light from the flash will fall off dramatically. Keep this in mind when you attempt to take shots of large objects or groups of people. However, if you get too close to your subject with a flash, your camera may overexpose, washing out fine details. Instead, if your camera supports zoom, step back a bit and use your camera's optical zoom feature to get closer.

Another feature of digital flash photography is that it does not usually brighten the whole scene uniformly. Some parts of your picture may appear darker than other parts. Typically, the center is lit more directly than objects on the periphery of the scene. If Erica were to let her physicist husband explain why, he would probably go on a bit about inverse squares, sines of the angle, and other rules of physics. What you really need to know is that your flash and your camera's sensors do not always produce uniform lighting in your images. Figure 1.21 show the difference a little distance can make in a flash photo.

The inverse-square law states that the amount of light from a single source falls off as the square of the distance from that source. If an object lies some unit distance away from the light and another is twice the distance, the second object will be lit only one-quarter as much as the first.



With a flash, the center is brighter, and the rest of th scene is in shadows.



Moving closer lights up the subject.

Figure 1.21

Lighting from your flash falls off quickly as distance increases.

Combat Red-Eye

Often, flash photography causes that eerie effect known as *red-eye*. Not to be confused with conjunctivitis (or pink eye), red-eye occurs when the light from the flash bounces off your subject's retina, as shown in Figure 1.22. This causes the pupil to appear red rather than black. Let me suggest four ways to deal with this problem.

First, most digital camera manufacturers now ship their products with a built-in solution called *Red-Eye Reduction mode*. In this mode, the camera actually flashes twice. The first flash causes people's pupils to quickly contract. This allows less light into the eye and thus produces less reflection when the light flashes a second time to actually take the picture. Check the instructions that came with your camera to see if it supports Red-Eye Reduction mode and, if so, how to activate it.

Figure 1.22

Red-eye can strike without warning.

Be aware, however, that Red-Eye Reduction mode puts a higher drain on your batteries (due to the double flash), and it causes a slight delay in taking the picture, usually one or two seconds. When you're trying to take action photos, you may want to turn off this feature. It can be hard to capture the moment when time passes between when you press the shutter release and when the camera actually takes the picture.

Also, Red-Eye Reduction mode sometimes causes people to blink. After the first flash, some people will close their eyes, so that the second flash, which accompanies the picture, creates a lovely image of your subjects with their eyes shut. (Of course, if their eyes are shut, you don't need to worry about red-eye.)

A second solution is to move the flash away from the camera. This creates a wider angle between the light, your subject, and the camera. This wider angle means that the light bouncing off someone's retinas ends up somewhere on the other side of the room and not in your camera. In just one step, you've gotten rid of red-eye. Unfortunately, few digital cameras support external flash systems, and those that do aren't the type you can slip into your pocket. The gain you make in reducing red-eye is offset by the inconvenience of carrying around an external flash system.

The third solution—and, incidentally, our favorite—is to simply take more than one picture. People's irises are not so flexible that they bounce back immediately from a flashed picture. The second and subsequent pictures will capture your subjects with more constricted pupils and less red-eye. This may not eliminate red-eye completely, as will widening the angle between the camera and the flash, but it should reduce it enough to create better pictures.

The fourth, and most obvious, solution is to bring more light into the scene. Turn on some lights or move to a brighter room. The more light, the less pupils dilate. Unfortunately, this solution is not always the most convenient one.

> Did you forget about red-eye when taking your pictures? You can fix red-eye in your photo-editing program. See Chapter 4 for details on repairing red-eye.

Long Exposures

We love those long-exposure photos, where the headlights and taillights of cars form streaks of light along a cityscape. Many new digital cameras support special slow-exposure modes that allow you to create this effect in your own pictures.

You will need a tripod (or some reasonable equivalent) to take this sort of picture. Consider the images shown in Figure 1.23. In one shot, Erica tried to snap an image relying only on the steadiness of her hand. For the other shot, she used a tripod. Clearly, the longer the exposure, the more crucial it becomes to steady your camera.

Make sure to take your picture on a street with some regular traffic. Waiting for a car to come by can be excruciatingly boring, and you might miss the one car that finally appears. Always start the exposure before the car comes into view. This permits you to obtain long, colorful streaks. Also, we prefer to snap slow pictures on streets without (or with few) pedestrians. This way, we can focus the scene on the beams of light rather than any passerby. Keep in mind that composition is just as important in long-exposure shots as it is in short-exposure ones.

Exposure Compensation Tips

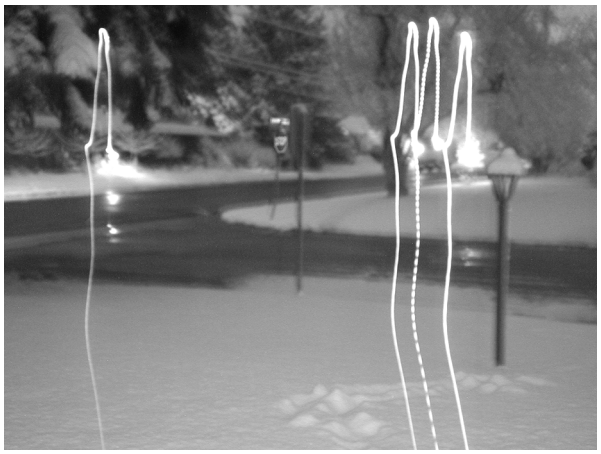
Have you ever wondered what that little button on your camera labeled +/– (or Auto) does? This button provides you with something called *exposure compensation.*

Your digital camera takes an average of the light of your scene before snapping a picture. This helps it figure out how to set the exposure. When your camera detects high levels of light, it reacts in one of two ways: It either takes a quicker exposure (faster *shutter speed*) or uses a smaller lens opening (called *aperture*), both of which let less light enter your camera. When your camera detects a low light level, it either takes a slower exposure or steps up the lens opening to allow more light in.

Digital cameras use two techniques to determine how to set exposure levels. The first, called *segment metering*, divides the image into a number of segments. The camera's light meter evaluates each segment and determines how to set the exposure for a given scene. This technique is only now coming into widespread use. The second, more popular system is *center-weighted exposure*, which places a greater emphasis on the light values measured at the center of the image. This assumes that the object you wish to photograph lies at the center of the scene. Pointing your camera at a dark object might cause the rest of the scene to overexpose and bleach out.

Figure 1.23

Use a tripod when taking long-exposure shots.



An unsteady hand ruins a long-exposure shot.

Using a tripod creates a better long-exposure picture.

No matter how your camera sets exposure levels, keep one thing in mind: Picture data in overexposed images cannot be recovered. A photo-editing program will not be able to undo the damage that overexposure causes. By using your exposure-compensation button with care, you can prevent losing your precious photos to overexposure.

For example, the exposure-compensation button can help compensate for a backlit situation. This may wash out the background, but it allows your camera to receive the proper amount of light from your subject. Similarly, if you're shooting a picture of a bright object in a dark background, you might want to reduce the exposure compensation. This can bring out the details of a pretty pair of candles on a dimly lit table, for example.

> Techniques for operating exposure-compensation buttons vary by manufacturer. Consult your manual to see how this button works on your particular camera.

When you're unsure exactly which exposure-compensation settings to use, try taking a lot of pictures with a variety of settings. You can always delete any bad pictures. If your camera has an LCD screen, it may be able to show you how successful your exposure compensations have been. Just to be sure, it's best to play with various settings, increase the number of pictures, and hope that you have taken one or two good ones.

Understand Depth of Field

To better understand focus, you need to learn about depth of field. *Depth of field* refers to the zone in which all elements appear in focus. Any objects in this range look sharp and clear in your photo. Objects outside this range appear fuzzy and out of focus. An example is illustrated in Figure 1.24. Notice how the first flower, falling within the proper range, remains in focus, while the second flower looks blurry.

Using zoom or wide-angle settings can affect your depth of field, as illustrated in Figure 1.25. With zoom, maintaining correct focus becomes more exacting. When you move the camera, even a little, your subject may appear out of focus because of the limited depth of field. In contrast, wide-angle settings offer a much larger in-focus range. This makes your camera much more tolerant of small camera movements and shakes. Also, your subjects can move in a larger range closer to or away from the camera before the camera must refocus.

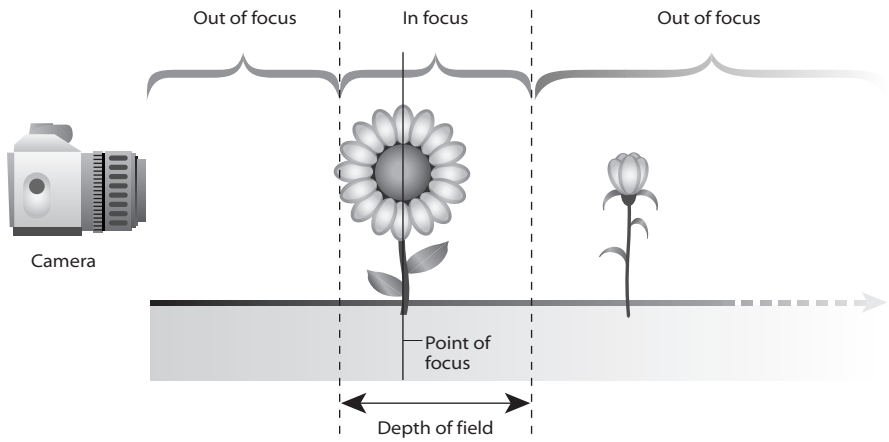
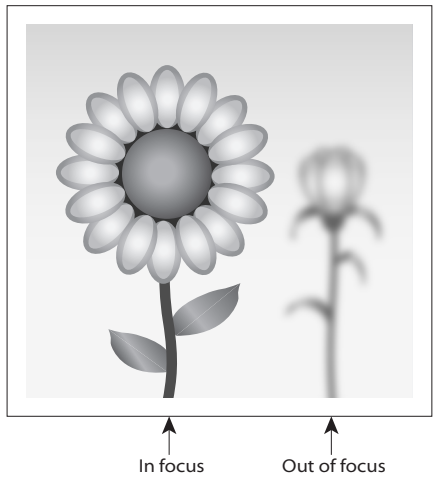


Figure 1.24
Depth of field affects focus.



The distance that your focal point is located from the camera can also affect the depth of field, as illustrated in Figure 1.26. The nearer the focal point, the smaller the depth of field. More distant focal points offer larger ranges in which objects remain in focus. You obtain the greatest depth of field by focusing on objects in the far distance, such as clouds or mountains.

Figure 1.25

Telephoto and wide-angle settings change your depth of field.

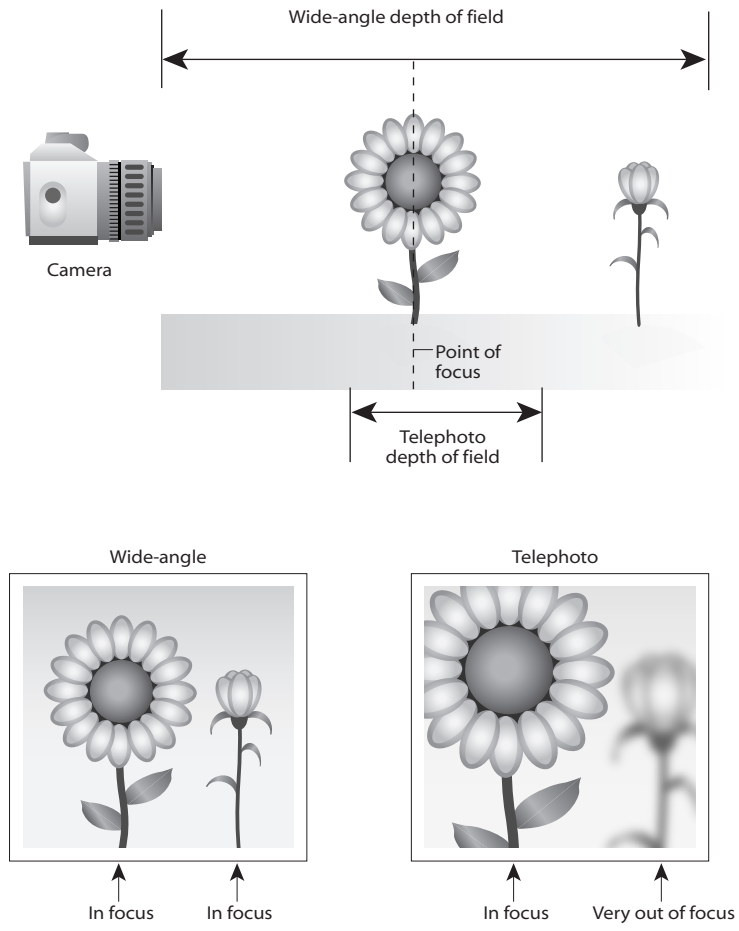
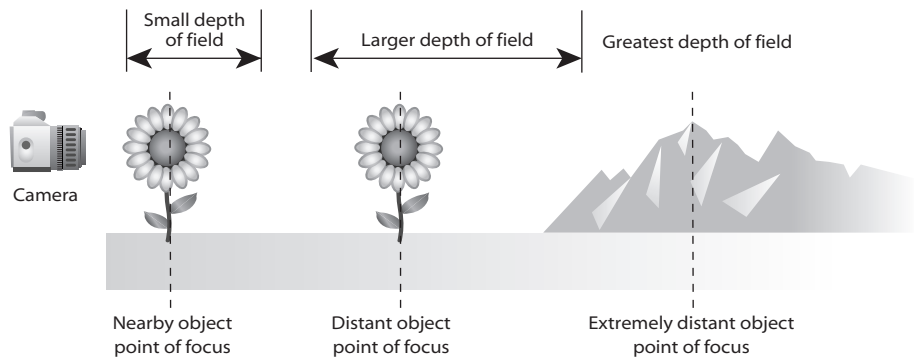


Figure 1.26

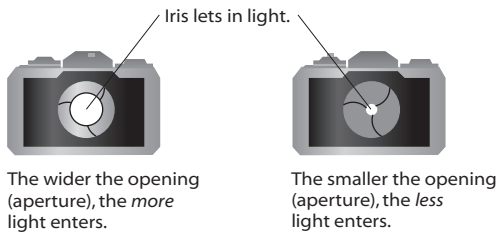
Depth of field varies with distance.



While a distant focal point offers a very large depth of field, nearby subjects will still appear out of focus. Don't assume that the "greatest depth of field" means that all distances fall within your field of focus.

The aperture levels on your camera also affect the depth of field, as illustrated in Figure 1.27. The iris on your camera opens and closes to let in various amounts of light. This works just like the iris in your eye, dilating to adjust for light levels. The wider the opening, called the *aperture*, the more light flows through to your camera's detectors. Smaller apertures let in less light. Even inexpensive cameras, like Erica's old analog video camera and her new digital camera, may allow you to set these aperture levels manually. The smaller the aperture, the larger the depth of field, and vice versa. Closing down the aperture works much like squinting your eyes.

Figure 1.27
Aperture affects depth of field.



The range of the depth of field in front of and behind the focal point is not equal, as you can see in Figure 1.28. The range of focus behind your focal point is always larger than the range in front of it. Keep this fact in mind whenever you set your focus and arrange your subjects. As a rule of thumb, about two-thirds of your field of focus lies behind and about one-third lies in front. When in doubt, always focus a little closer than farther away.

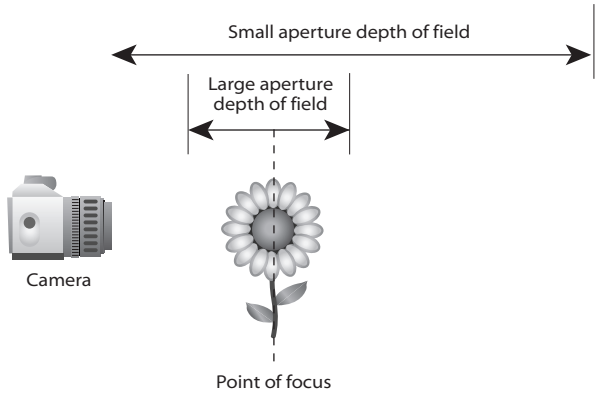
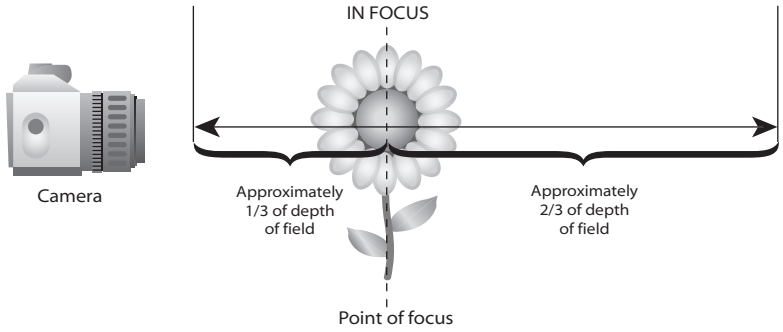


Figure 1.28
Depth of field is split unequally before and after the point of focus.



Achieve Natural Poses

Have you ever noticed how stiff and uncomfortable some people look in photos—those fake smiles and awkward postures? One of the most important techniques a photographer can develop is putting people at ease. A relaxed subject helps make a portrait more flattering and memorable. Create a relaxed atmosphere when taking your pictures. Not only will your pictures improve, but your subjects will come back again for more!

Lighten the Atmosphere

These techniques may help lighten the atmosphere and relax your subject:

Talk to your subject. As you get ready to take your pictures, start a conversation. Talking helps many people forget about posing and produces better and more natural facial expressions.

Make them laugh. Tell some jokes or silly stories. Laughter shakes people right out of their stiffness and into photographically pleasing facial expressions. A colleague relates, "If subjects know I'm going to take their picture, I like to get the camera ready but not in position, then make them laugh. I then grab a few quick shots while they're still laughing naturally, and before they're in 'posed for portrait' mode. Those are usually the best smiles."

Give them something to do. Props are great photographic tools. When people are busy doing something—anything—they tend to focus on the task and stop thinking about their facial expression. Children may enjoy playing with a toy. Adults will tend to focus on a task and forget about the camera. Show someone working on a hobby, doing a household chore, or otherwise occupied.

Take *a lot* of pictures. People can keep that silly, stiff smile on their face for only so long. The more pictures you take, the more those muscles will tire. Prepare to throw out a lot of early shots. Eventually, the awkwardness will disappear.

Move them around. Why not go to another room? You can go inside if you're outside or outside if you're inside. Each time you change locations, you get a fresh start and new facial expressions to work with.

Catch them at an off moment. This can be tricky, but it's frequently worth the trouble. Some of your best pictures will be those that were shot when the subjects didn't know that you were taking their picture. The more memory you have in your camera, the more likely you'll be able to snap an extra picture when no one expects it. Use the biggest memory cards you can afford. Sometimes these shots turn out badly, but sometimes they produce treasures. (You can learn more about memory cards in Chapter 2, "Digital Camera Equipment.")

Remember that the best images aren't always the ones that show smiles plastered on faces. In portraits, you may want to see the truest person looking out.

Take Flattering Photos

The simple truth is that some people photograph better than others do. Some are natural models; others aren't. Whether you're dealing with a double chin or a prominent nose, you can help your subjects look their best by keeping a few tips in mind. Here are some common problems and some suggestions for minimizing them:

Double chins You can minimize the prominence of double chins in your photos in two ways. First, ask your subjects to hold up their chin slightly. Second, shoot from a bit above the subject. Raise your tripod and shoot slightly down to de-emphasize the neck. Figure 1.29 shows the contrast between a flattering and unflattering shot.

Weak chins In the case of a weak chin, you want to lower your tripod to slightly below your subject's face and shoot up. This changes the emphasis toward the top of the face and away from the bottom.

Wrinkles Wrinkles show their worst in bright light. Keep your lighting as diffuse as possible. This minimizes the shadows between wrinkles and flatters the subject.

Prominent noses If a nose presents a problem, avoid profile shots. To de-emphasize a nose, have your subject face the camera directly. Keep the camera level with the face and avoid shooting up or down.

Unflattering eyeglasses In the case of thick eyeglasses or unflattering eyeglass frames, consider using the glasses as a prop. For what I call the "professor shot," have your subject hold the glasses and gesture with them. This shows more of the face and avoids distortions around the eyes from both the lenses and the shadows created by the frames. This may not work for subjects with very poor vision or those who wear their glasses constantly. The

Figure 1.29
Shoot to flatter your subject's chin.

Shooting from below emphasizes those chins.

Shooting from above proves more flattering.

former may look "dopey" during the shoot because they cannot see. The latter will seem unfamiliar to friends and family because the glasses are such an intrinsic part of the person. In these cases, consider the next suggestion instead.

Reflections from eyeglass lenses You can fix this problem in a number of ways. First, you can add a polarized filter to your camera to minimize reflection from the lenses. Second, you can slide the glasses up or down the subject's nose to produce less reflection. Third, you can keep the glasses in place but move the subject's head slightly to minimize the reflection. If you still cannot find a flattering shot, consider using the glasses as a prop, as described in the previous suggestion.

Blemishes When you're dealing with facial blemishes, use diffuse lighting. Also, consider touching up the photos after the shoot in an image-processing program. An airbrush or iPhoto's Touchup brush will blend away most obvious facial blemishes.

> You can reduce the impact of some unflattering features, such as blemishes, with photo-editing programs. For details, see Chapter 4.

Use Standard Poses

It helps to have a few standard poses up your sleeve. These poses can help get the ball rolling and sometimes produce the best pictures on the whole digital "roll." When you're not sure how to start, pick one of the poses suggested here.

The Angled Pose

For this first pose, you'll need a chair. Angle the chair about 20 degrees away from the camera. Sit your subject—Lela, in this example—in the chair, completely facing the way that the chair faces. Lela's legs, arms, and head should face slightly away from you. You may cross Lela's hands in her lap or place them on her hips. Next, have Lela turn her head, but only her head, toward the camera. The rest of her body—shoulders, back, feet, and so forth—remain aligned with the chair, as shown below. Tell Lela to take a few deep breaths and smile. Start shooting.

The Classic Portrait Pose

For this second pose, find a table. Place it in front of your subject (Lela again), and otherwise set up the portrait as described for the first pose, with a small angle between her body position and the camera. This time, however, when turning Lela's head, place one of her elbows on the table and support her chin with her hand. Raise your tripod and aim down toward Lela. Ask her to look up toward the camera, and then shoot the picture.

The Window Pose

For this third pose, you'll need some window cleaner. Okay, you won't need it right away, but you'll need it after the shoot to wipe off the window. Here's how it works: Have your subject (we're still posing Lela) look out a window on a sunny day. Place one or both of her hands on the window and have her keep her eyes focused on the outside. A good way to do this is to ask Lela to talk about what she sees. This forces her to keep her attention outside and allows you to shoot your pictures from the side.

Angled

Classic

Window

Focus Sharply

The average modern digital camera ships with both manual and automatic focus options. Today's auto-focus systems provide good results for almost all of your photo needs. They eliminate the need to manually adjust the focus for each picture and generally make life much easier. Auto-focus works by shooting out an infrared beam and measuring how long it takes to bounce back. This lets your camera know the distance to your subject and, therefore, how to set the lenses to create an in-focus photo.

Most digital cameras are built to take slightly wide-angle photos. These wide-angle settings produce larger depths of field. As you've learned, depth of field can be important. As it increases, your camera can take in-focus pictures over a wider range of distance. In contrast, the more you use magnification—either with a zoom or telephoto lens—the smaller the depth of field, so exact focus becomes more critical.

Even with auto-focus enabled, sometimes you still take blurry photographs. Three culprits account for almost all out-of-focus pictures when using auto-focus: steadiness, low light, and incorrect targeting.

Avoid Unsteadiness and Improper Light Levels

Your camera is vulnerable to shaking hands. No matter how superb the auto-focus system, unsteadiness will ruin your shot. This is where a tripod comes to the rescue. Keep your camera steady, and you may avoid inadvertently blurring your pictures. (See the "Steady Your Camera" section a bit later in this chapter for some alternatives to using a tripod.)

No matter how steady you keep your camera, a moving subject will blur. To capture a moving subject, you need a very short exposure time. Ambient light levels determine these exposure times. The lower the light, the longer the exposure. The longer the exposure, the more your subject may move and blur. To bypass this problem, avoid taking action shots in low-light conditions.

> "Noise" presents another low-light problem for digital cameras. When you shoot pictures in dim lighting, you're far more likely to produce images with unintentional pixel variation. This noise, which fades to the background in well-illuminated shots, adds graininess to your low-light photos. You can reduce the noise to some degree using a photo-editing program. See Chapter 3, "An Introduction to iPhoto 2 and Photoshop Elements 2," for details.

Target Your Subject Correctly

Blurry pictures can also result from incorrect targeting. This focus problem occurs in two instances: off-center subjects and subjects positioned at different distances.

When you shoot pictures of an off-center subject, your camera may not focus correctly. The ultrasound beam bounces off whatever occupies the middle of the picture rather than your subject. Then it reports a meaningless value to the auto-focus mechanism. Fortunately, digital cameras support a quick fix for this problem:

1. Place your subject directly in the center of the frame.
2. Depress the shutter button halfway. The auto-focus system will set the focus correctly.
3. Keeping the shutter button halfway depressed, compose your shot.
4. With the shot composed, finish pressing the shutter button. Your digital camera will take the photo using the correct focus settings.

The problem of dealing with subjects at varying distances proves more difficult. Unless all of the subjects fall within your camera's depth of field, it's likely one or more of them will end up out of focus. You will not find an elegant solution for this problem. Instead, you must either move your subjects to more uniform distances or use a wider-angle lens with a more robust depth of field.

Tips of the Trade

Good composition, lighting, and poses will help you to produce better pictures, but there are some other steps that you can take to make sure you get the best shot at the best time. Here is an assortment of tips for the digital photographer.

Take Your Camera Along—Everywhere

No matter how well you compose, light, or pose your subjects, it won't matter if your camera is not *right there with you* when the moment strikes. As long as your camera is at hand, you can capture that moment. No camera, no moment—it's as simple as that.

Take your camera with you wherever you go. Stick it in a glove compartment, a briefcase, or a diaper bag. With your camera nearby, you'll be ready to seize the moment when the right opportunity strikes.

Steady Your Camera

The culprit for many bad pictures is unsteady hands. You can prevent the wiggles, jiggles, and bouncies that ruin pictures. All you need to do is steady your camera. Sure, you can use a tripod for dependable support. But if you don't have a tripod at hand, you can still steady your camera. Try one of these helpers:

- Rest your camera on a fence or a low wall.
- Steady your camera on a friend's shoulder.
- Use the top of a public mailbox as a camera rest.
- Pile up a stack of books and use them to hold your camera.

The possibilities are endless. Just remember the importance of keeping your camera still. Don't ruin a shot because your hand was too unsteady.

Take a Lot of Pictures

The more pictures you take, the more likely you will end up with a good one in the bunch. Load up your camera with as much memory as it can hold and keep an extra disk or memory card on hand to swap as needed.

> If you don't have extra memory cards available or really large-capacity memory cards, you'll probably need to download your photos to your Mac more often. This is a good argument for having a PowerBook or iBook handy, though additional memory cards are a lot cheaper and swapping them out of your camera is a lot faster. We discuss memory cards in more detail in Chapter 2.

Taking a bunch of pictures means you don't need to bet on any single picture being perfect. The worst that will happen is you get a few good shots among many bad ones. The best result will be that you get to choose from many, many wonderful pictures.

Remember to keep shooting. Take pictures from different angles and distances. Don't just seize the moment, keep seizing it. Take a lot of pictures!

Don't Be Shy

Shy photographers rarely shoot great pictures. One secret to great photography is to boldly take pictures under all sorts of circumstances.

Unless you have the camera out and you're taking pictures, you cannot catch that perfect moment. You'll miss that kiss, that laugh, that smile, that tear, and so forth, unless you're willing to jump in and photograph it. Don't be timid. Learn to let your camera into the best times in life. You'll be glad you did.

Watch Your Thumb

Don't put your fingers in front of the lens. No, I mean it. It sounds silly and obvious, but you would be surprised how easily you can ruin a shot by sticking your thumb where it shouldn't be. And dangling bits aren't limited to your digits. Keep that lens cap, that wrist strap, that handbag, and that power cord out of the way, too. Sometimes we are so intent on other matters that we forget the simplest things.

In This Chapter…

In this chapter, you've learned about making the most of your digital photo shoots. Here are some key ideas from this chapter:

- Learn about composition before you pick up the camera. The basic principles of balance, avoiding distracting elements, and so forth will help you take better pictures.
- If you don't remember any other tip about shooting pictures, remember this one: Get close. Learn to take pictures of faces rather than of people.
- Avoid backlight whenever possible. Try to move your subject or your camera to keep the light in front of your subject.
- Windows provide elegant lighting situations. If you've never done so, give window-lit shots a try.
- Depth of field will help you understand why some shots are in focus and other shots are not.
- Take flattering shots. Pictures can be (and should be) forever. Make the most of your subjects, and both you and they will be happy with the results.
- You cannot snap a picture if you don't have your camera. Make sure to take your camera with you whenever possible.