

4H PHOTOGRAPHY


LIGHTING

DIFFERENT KINDS OF LIGHTING

Light is the main ingredient in the mix of elements that make an image. Content, composition, technique will all pale if the light isn't right. Light can transform a dull image into a brilliant one and light needs to be used wisely depending on the type of light, intensity of light, direction of light and time of the day.

Understanding how to use, manipulate, and incorporate light and shadow are critical aspects of photography. Without light and shadow, photos lack depth and detail. Moreover, the photos often look flat and lifeless. A strong source of light totally changes the composition of a photo. When used correctly, light creates added dimensions. It creates fantastic shadows and contrast.

Try putting different kinds of light to work. Whether shooting outside in the sunlight or indoors near a lamp, be aware of where the light is coming from and how it will affect your image. When dealing with available lighting, there are four different types to be aware of:

Front Lighting

Back Lighting

Side Lighting

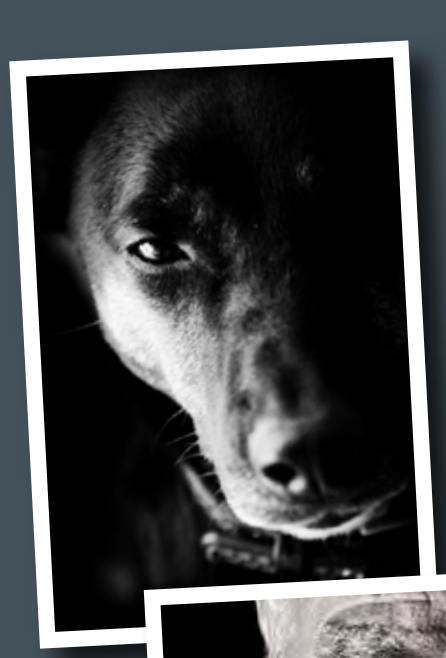
Diffused Lighting

Front Lighting

This is when the light source is in front of the subject (coming from behind the photographer). Front lighting lights up a subject very well, but bright front lighting may cause long shadows behind the subject. Front lighting can also be too harsh and if shooting people, can cause them to squint. It's great for landscapes.

Side Lighting

Side lighting is light that comes from one side of the subject. This type of lighting is often used to add a moody look to a photo because it tends to cast shadows across the front of the subject. It's great for emphasizing texture, defining depth, and bringing out patterns. It can add a lot of drama to black and white photos.

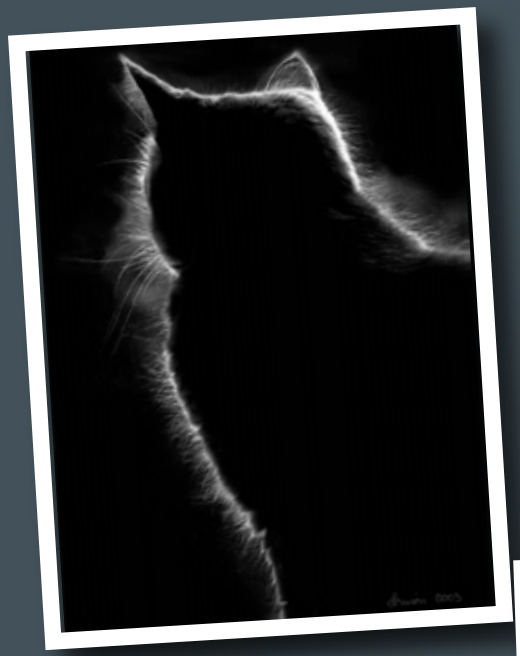


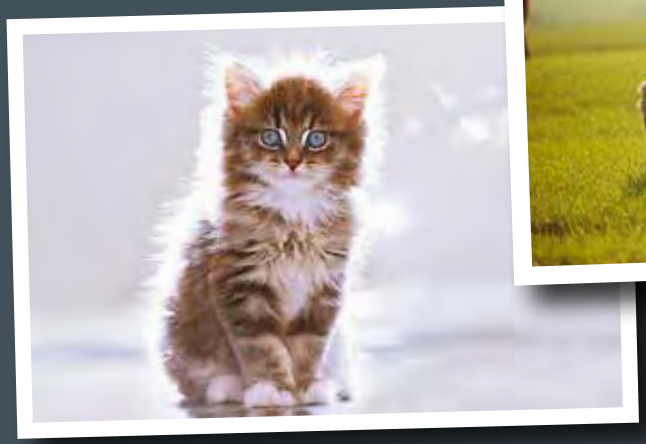
Back Lighting

Backlighting happens when the light source is behind the subject. This means that the light is directly in front of the camera, with the subject in between. This light can most of the time create silhouette with a hazy feel and not much details on the subject. If backlight is slightly moved to fall from an angle, then this will show details of the subject instead of a silhouette and may have a rim light. Silhouettes also will have a rim light when light is used effectively, but the details in the subject will be lost with a lot of highlights showing up in the edges.

Back Lighting—Rim Light

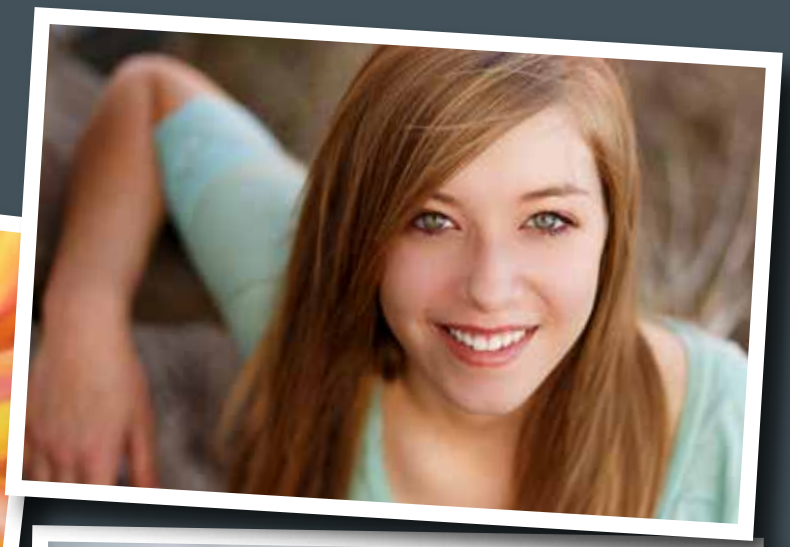
Rim light can beautifully light the edges of your subject separating the subject from the background.





Diffused Lighting

Diffused light is a soft light with neither the intensity nor the glare of direct light. It is scattered and comes from all directions, such as the light outdoors on an overcast day. Thus, it seems to wrap around objects. It is softer and does not cast harsh shadows. This is the easiest type of lighting to work with, though not the most dramatic.



CHOOSING YOUR LIGHTING

Your subject matters when deciding which type of light to utilize.

Front Lighting

Front light, is the least dramatic. You won't get a lot of shadows, if any, on your subject and images are more likely to be at least pretty good from out of the gate. And other than possibly controlling its intensity, front light is the easiest angle you'll work with.

You almost can't go wrong with front lighting if you're capturing a family portrait or gatherings like a wedding or graduation. Because of its flat look, front lighting is usually the most flattering to those who are older.

You need to be careful of stark sunlight. The softer the light, such as at dusk or dawn, the better results you'll have with front light. Even in a shadowed place under a tree. Your ability to control brightness or softness is the key. Since the flash is the most typical form of front lighting, when outdoors you can use it as a nice fill flash, too. The trick there is to be far enough away (use a zoom lens if you have to) so that the flash fills rather than dominates.

Some good reasons to use front lighting:

- Gives more predictable results by lighting the entire subject straight on.
- Fewer shadows make for less dramatic and more predictable images.
- Older people will be happy since this type of lighting is flat, flat lighting is light that evenly spreads on the subject, and with that means more flattering.

Some of the downsides of front lighting:

- The flat look can lead to boring images.
- You have to be careful with the use of your flash since that can lead to some inconsistent, artificial lighting, blown out subjects and red eyes.
- Creativity is on the low end of the spectrum.

Side Lighting

If you want to explore the creative side of photography, side lighting takes you there. It's perfect for emphasizing texture, defining depth, and bringing out patterns.

When you side light a subject, its texture pops. Side lighting is more effective with portraits because it helps you emphasize the emotion and depth of your subject in a more dramatic way. Turning an image into a black and white shot also helps with conveying emotion.

Most photographers tend to use either front or back light for nature and landscape images. There tends to be more of these images captured shooting into the sun, usually at sunset or dawn, or by having the front light fill the scene or filter through trees. So, you'll probably find yourself mostly using side lighting for portraits, pets, and fine art type captures. Not that you want to rule it out for nature... it can be very effective in the right scenario, especially with animals in the scene.

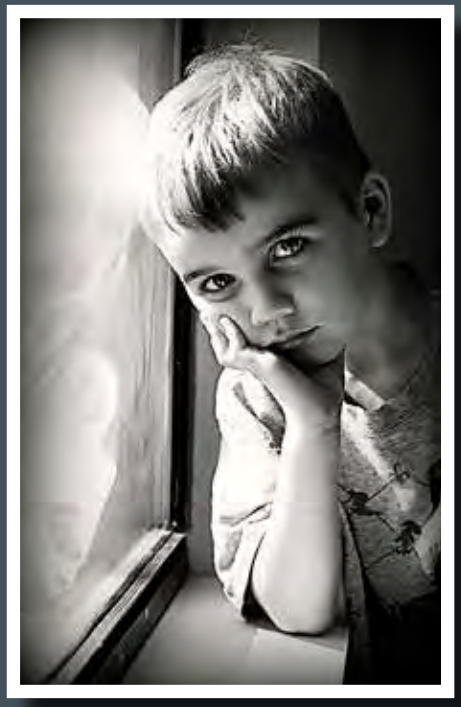
Some good reasons to use side lighting:

- Creates a more dramatic image.
- Visually defines the subject from its background.
- Texture comes to life.
- Depth becomes a more prominent force in the image.

Some of the downsides of side lighting:

- Too much contrast can be unflattering.
- You may need to use a reflector or fill flash to reduce contrast.

If you use side lighting, make it purposeful.



Back Lighting

Back lighting is one of the most popular lighting options for creating drama. Back light is when the sun or other light source emanates from behind your subject, which means you're shooting into the light. Probably the trickiest to use, but worth the results when done properly.

The most popular back-lit images tend to be people in nature, people playing sports, or a nature scene. Like side lighting, back-lit images have contrasting depth as well. You'll want to play with where the light is behind your subject. For example, if the sun is directly behind your subject, your subject will be that much darker.

Some good reasons to use back lighting:

- Silhouettes are always a big hit among photo viewers.
- It creates an interesting contrast of (often) warm light on a dark subject.
- The image becomes about a story rather than facial expressions, etc.

Some of the downsides of back lighting:

- The lack of detail might not be the desired result.
- Too much or too little back lighting can ruin the desired images. Be careful.
- Lens flare can pop up.
  (Flare can take many forms—polygonal shapes, bright streaks, or overall washed out look. Can be desired sometimes.)

Soft & Hard Lighting

Light can be soft, hard or of other varying intensities depending on the type of light, weather, time of day, etc.
Adding a diffuser can change hard light into soft light.

Soft Light

Soft light, or diffused light, is light that is of less intensity and that does not cast strong shadows. This light can be used to create images that are soft with less contrast. Cloudy or overcast days produce really soft light that can be flattering on the human face. A Cloudy day will allow a nice even ambient light equally spread out, with out the harsh light, But giving enough light for a nice exposure.

Light during the blue hour, 20 to 30 minutes just after sunset and just before sunrise, and golden hour, the first hour of light after sunrise and the last hour of light before sunset, are also soft lights and these can be used to photography beautiful images. Light during the golden hour can be used to make striking portrait and landscape images whereas light during the blue hour, if used creatively, can also help make dreamy portraits and stunning cityscapes, landscapes with blue, purple and pink hues.

The Golden Hour

The golden hour is a perfect example of the sun being in a great position. The sun works as backlight, side light and as front light, because of its low position in the sky.

Most photographer's favorite time of day for outdoor photography is the golden hour (a.k.a the magic hour).

Morning golden hour is fresh and the world is waking up to start a new day. Evening golden hour is a peaceful winding down at the end of the day. Choose the golden hour that suits what you're photographing and the feeling you want to create. All the while the colors change and offer up a huge scope of opportunities for gorgeous images.

Golden hour photography tip 1: angle of the sun. Aside from the beautiful warm tones of golden hour, the angle of the sun is also flattering. An overhead sun causes eye socket shadows (raccoon eyes), which are very unflattering. A low sun comes in at angles that work beautifully for portrait photography.

Golden hour photography tip 2: shoot with the sun as a back light so that the subject doesn't scrunch up their face, or get blinded by the sun.

Golden hour photography tip 3: never underestimate your need for a reflector. Eyes need catchlights to be alive and complete a portrait. If you're photographing natural light only, with the sun behind your subject, you're going to need a reflector to create light on your subject. It might be a white sheet, a white wall or a piece of foam board.

Golden hour photography tip 4: background details. You don't want a viewer's eye to be pulled unnecessarily to something that doesn't enhance your composition.








The Blue Hour

Blue hour photography is just as magical as golden hour photography. Unlike the golden hour, when we have warm golden tones for photos, during blue hour the light is a very cool, deep blue. Photos take on a very different feel during the blue hour.

During the blue hour light changes, in the morning, from deep blue purple to a dark blue and then light blue before the sun rises above the horizon. In the evening the opposite happens—when the sun dips below the horizon the light changes from light blue, to dark blue and then to a deep blue purple.

There are two reasons why blue hour photos have such vivid blue colors:

1. **Indirect sunlight**
   The blue of blue hour is because when the sun is below the horizon, only its indirect light is visible. The shorter wavelengths of blue light, results in blue light being scattered in the earth's atmosphere while the longer red wavelengths pass through space.

2. **Technology**
   The way cameras see light is different from our eyes. Our eyes are so much more advanced than cameras, so we adapt to the light and don't notice these colors as much. We can also adjust settings on our cameras to alter how we record the world. For example, just under-exposing blue hour photos slightly will create a more intense blue.

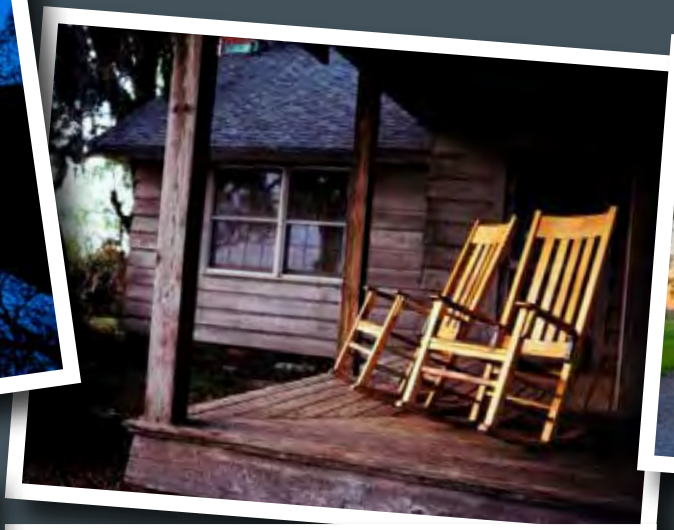
During blue hour the light is soft and there are not harsh shadows, so photos feel peaceful. Colors are deep and interesting, ranging from deep blue high in the sky to oranges closer to the horizon. This palette makes a wonderful backdrop for silhouettes.

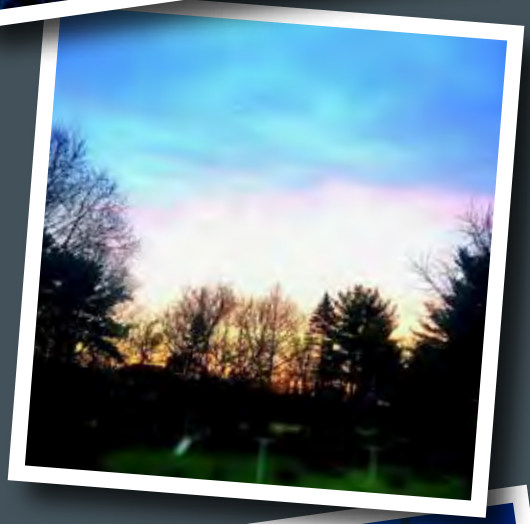
City lights are on during the blue hour and the warm tones contrast beautifully with the blue hour tones in the sky.

Reflections during the blue hour look great, which opens up so many possibilities that are not around during the middle of the day.

Because of the low light, you might need a tripod. Ideally you need a remote release as well to avoid camera shake by pushing the shutter button, or set your camera to timer.

If your camera is struggling to focus in the low light conditions, try using live view. Focusing works differently in live view and your camera will be able to lock autofocus more easily. In live view mode you see what the lens is seeing, including the effects of any changes in exposure settings.





Hard Light

Hard light can be highly intense, which means very bright and can cast very strong shadows. There will also be very high contrast between the light and shadow regions and need to be used wisely. Light from the midday sun is very hard and care should be taken to use this light creatively for compelling photographs.

Some examples of hard light would be:

- The sun on a cloudless day (anywhere from 9am to 4pm pretty much throughout the year)
- A light bulb without a shade (bare bulb)
- A spotlight
- Overhead fluorescent lights
- Direct flash

If you are trying to create a scene that is moody, edgy, or with a lot of contrast then hard light is probably what you want to use. Softer light is not commonly used to convey those things.

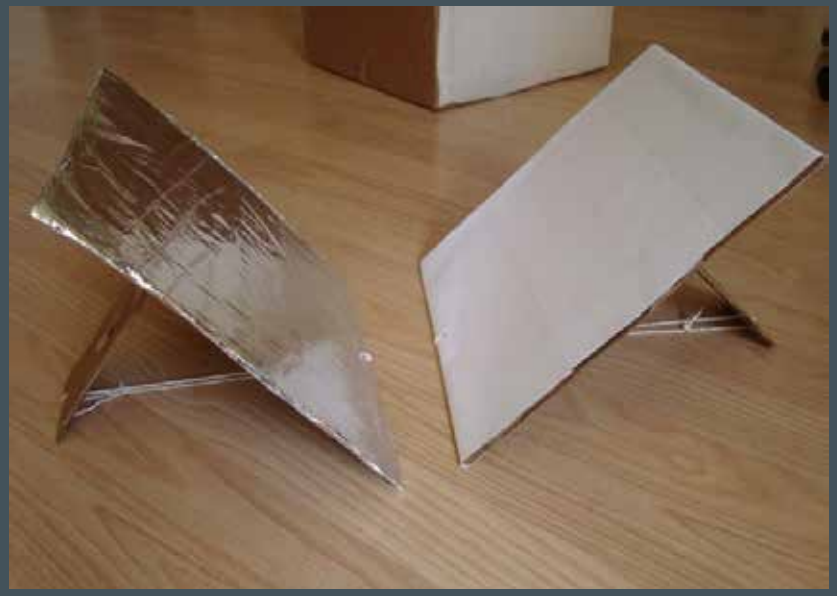
Hard Light

Observe Lighting

One way to start thinking about light is to notice it in your everyday activities. When you're out and about, notice the way light falls on the subjects around you. Consider how the subject might look later or earlier in the day. The more you observe light in your everyday life when you're not looking through the lens, the more creative you'll be with it when you do pull out your camera. Understanding light makes for a pixel-happy photographer!

Try a Reflector

A reflector is a tool that helps a photographer to bounce light back into a subject. Reflectors can make a big impact on your images. A reflector is simply a surface that reflects the existing light. You can easily make your own.



How to use a reflector

Using a reflector is rather straightforward—simply hold it at an angle that reflects the light the way you want it. Watch how the light changes as you adjust the angle, and find the angle that works the best for your shot. But there's a few tricks to getting the most from a reflector.

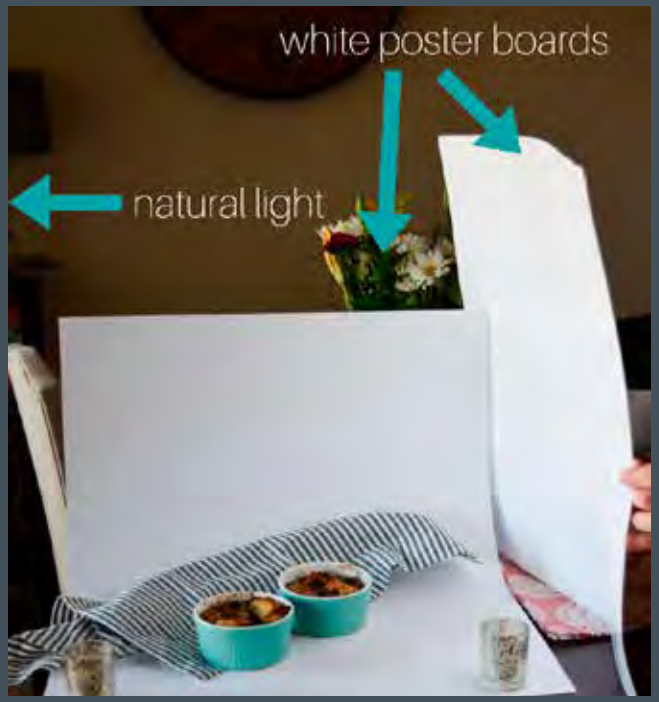
If you hold the reflector directly opposite the light source, you'll get the most, or brightest, light. Depending on how much light there is, you are often still able to reflect light from other angles and positions. There just isn't as much light reflected.

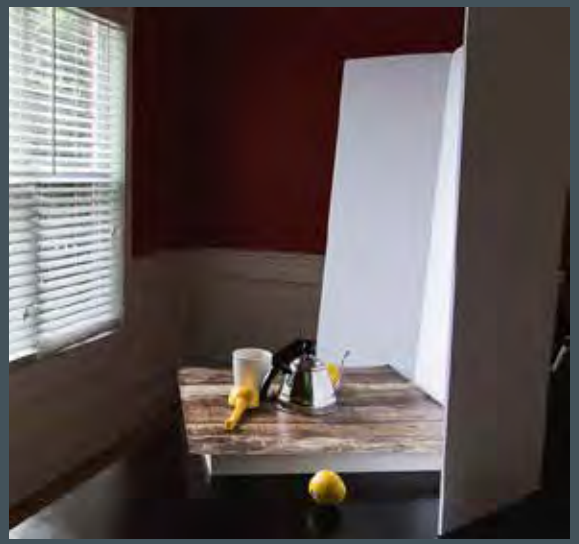
Reflectors are great for fixing odd shadows. If the light is directly behind the subject, using a reflector directly in front of the subject will help prevent a silhouette. If the light is coming from one side, using a reflector on the opposite side will help fill in the shadows. Sometimes, light is blocked by large objects. Placing a reflector close to the object can help.

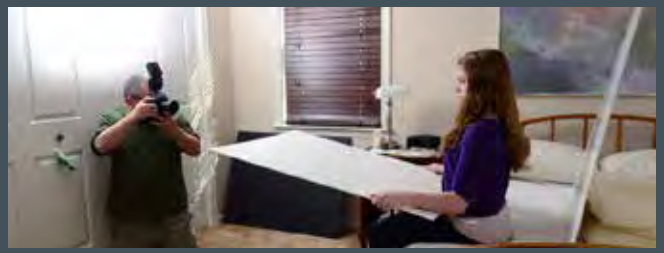
Don't just limit the reflector to upright angles though. Laying the reflector on the ground in front of the subject when taking a portrait can help prevent under-eye shadows.

Of course, sometimes it's impossible to hold the reflector at the perfect angle and still take a picture. Enlist some help if you can, or attach the reflector to a stand or prop it up against something.

Remember, distance matters too. Bear in mind that a large light source and as close light source creates the softest light. Try placing the reflector closer to the subject if the light is too hard.







Using Your Flash For Lighting

The light from flash is too harsh for most scenes, and especially when photographing people. Instead, rotate your flash to bounce off a wall or ceiling. This will cause the light to spread more evenly through your scene. If your flash doesn't pivot, a diffuser will work.

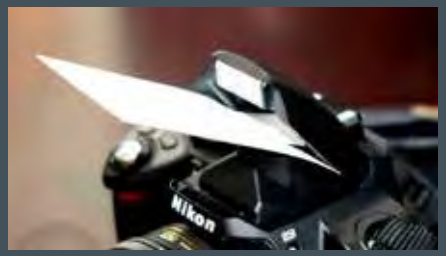
Make Your Own Diffuser

A diffuser can be anything that partially blocks or otherwise spreads the light from your flash around the scene. You can purchase a professional diffuser for your camera, or you can make your own using household objects.

You can also try to bounce your flash using a business card or small piece of paper. This trick is great for a quick way to bounce your flash. Just attach a business card or paper to your pop-up flash, and you'll be amazed at the difference in lighting.

Here are examples showing how a diffuser softens the flash.

Flash Diffuser and Bounce Examples



Basic Flash Modes

Most cameras these days have more than just a on-off switch for the flash. Here are the major flash modes that you'll find in most cameras.

Automatic

Most of the time—especially for general-purpose snapshot photography—you can simply leave your camera's flash set to Auto. When set this way, the flash determines whether it needs to fire based on the amount of light in the scene.

Fill Flash

Forced Flash or Fill Flash, forces the flash to fire regardless of how much light is available. It's most useful when you're shooting outdoors in natural light. Fill Flash can erase shadows that appear because of the way the sun hits your subject. This mode, often represented by a lightning bolt in the status display, is great for outdoor portraits.

Red-Eye Reduction

You should use this mode when shooting people. It flashing the subject several times right before the picture is taken to force your subject's pupils to close down to a smaller size, thus decreasing the chances that their retinas will reflect the light of the flash. When you use this mode, remember that it will take a fraction of a second longer for the picture to

be taken: Don't pull the camera away as soon as you press the shutter release, or you'll blur the picture. If you're photographing people in a dark room, it's probably worth the extra time. Of course, you don't need to use Red-Eye Reduction outdoors or in bright light.

Advanced Flash Modes

Some cameras throw in a few more additional settings.

Low-Power Mode

This setting lets you control the output of the flash. Depending upon the camera, you might be able to reduce its intensity by 50% or more. You can use this mode when you need the flash to fill in shadows, or when you're taking a close-up and a full burst of light would overexpose your subject.

Slow Sync

It's handy for night photography, when you might want a long exposure to capture background details, but also want to fire the flash to freeze foreground action. When you use Slow Sync, you get both: The shutter is slowed, but the flash also fires.

2nd Curtain

When the flash fires in normal Slow Sync mode, it fires right away, then

leaves the shutter open for a while to expose more of the background. In 2nd Curtain exposures, the shutter opens for a while, then the flash fires at the end, right before the shutter closes.

Slow Sync and 2nd Curtain give you very different effects. Imagine taking a picture of a car streaking down the street. In Slow Sync mode, you'd get a picture of a car with its tail lights streaking through the vehicle. A 2nd Curtain version of the picture would reveal tail lights leading up to the car itself at the leading edge of the image. Be sure to use a tripod like you would with any long-exposure photo.

Finally, don't forget about the Off switch because you don't always need a flash.

TIPS AND MORE

CREATE YOUR OWN STUDIO SET

Build a Lightbox Using Cardboard

This trick may take a bit of time to make, but it's totally worth it. Lightboxes can be expensive, but if you have a box, tape, and tissue paper or paper towels or light fabric, you can make one yourself. You'll be ready to experiment with the lighting of your new box in no time!

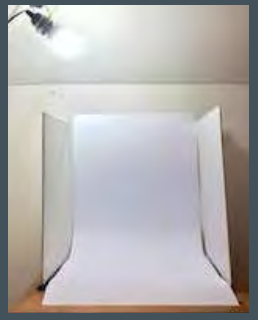


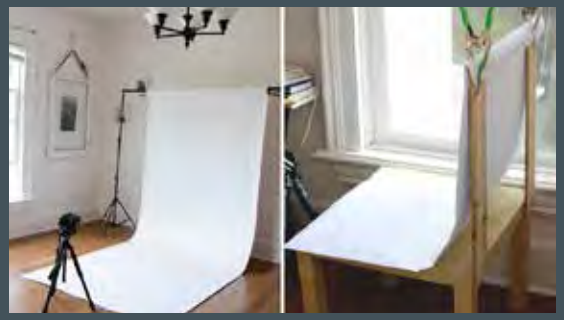


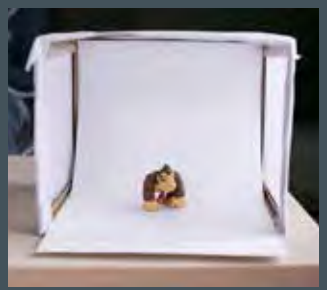


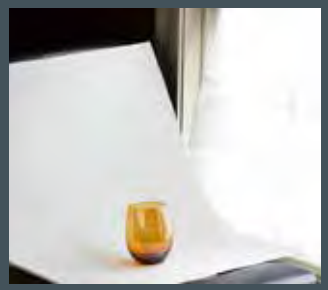
Create a Seamless Backdrop

This trick is great for getting the perfect seamless background in your pictures. Simply sweep the paper or cloth and hold it up using two clamps or tape. This curve eliminates the edge, creating a seamless backdrop. You can play with the size of curve. A smaller curve creates shadow, and gives the edge more definition.







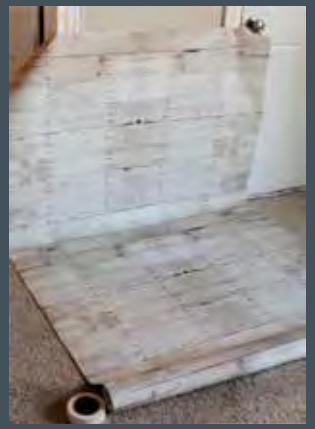


Create a Textured Background Using a Pattern

Using a cloth, wrapping paper or wallpaper is a super easy way to add some texture and color to your background. This is great for pictures when you want something a little more interesting than the plain white background, and using the sweep technique will keep the seamless look.





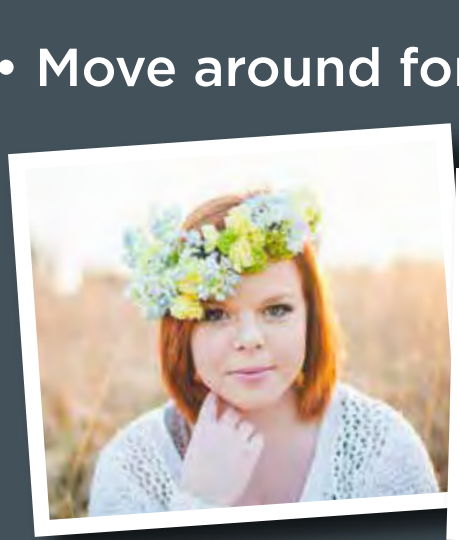




Fake a Backdrop Using Your Computer

Pull up an image of your choosing on a laptop or desktop computer screen and start snapping.

Tips for Outdoor Portrait Photography

- All around us there are natural softboxes. For example position your subject in the recess of a doorway so that the doorway opening itself becomes the light source—a large light source with the light falling onto your subject from one direction.
- Look for breaks in the tree canopy that will again provide you with beautifully soft, directional light:
- Make use of reflectors. The main thing to remember when using reflectors is that you're using them to redirect some of the sun's light back onto your subject. Look at positioning it so that the light is reflected slightly down on to your subject.
- Shoot earlier or later in the day when the sun isn't so strong and harsh.
- Move around for different angles and perspectives.




FUN AND CREATIVE