

Flash Photography

An electronic flash can be very helpful in adding additional light to a photograph when there is not enough natural light to give you exactly what you want. And an electronic flash is very easy to use, as long as you keep a few things in mind:

A flash operates under the law of light—the intensity of the light diminishes or falls off inversely in proportion to the square of the distance it has traveled (i.e. the inverse square law.) In other words, the further you are away from a light source, the dimmer the light will be. Therefore, the distance the subject is from the light source determines the intensity of the light at that point, which in turn determines the aperture necessary to give you a proper exposure.

The aperture is the only thing on the camera that you control when using a flash. The shutter speed is limited to what speed that particular camera synchronizes with a flash. Because the focal plane shutter on a 35mm camera only exposes part of the film at a time, you are generally limited to a shutter speed of 1/60 of a second or slower if you are using a flash.

To determine the proper aperture for your flash-to-subject distance, you first need to set your ASA on the guide wheel on the flash. Once this is done, calculate the distance from your flash to your subject. Use this distance, along with the guide on your flash to calculate the proper aperture.

Some different ways to use a flash:

STRAIGHT FLASH -

Using a straight flash means that the flash unit is located next to or attached to the camera. This is probably the easiest way to use the flash, but it does have drawbacks. You must be careful of heavy black shadows on the wall behind your subjects, or shadows falling from one subject onto another, or very dark backgrounds.

1. To avoid the heavy shadows on the wall, use your flash off-camera and keep your subjects away from the wall. They should be at least four or five feet away from it.
2. A high angle for the flash is usually sufficient to keep the shadow of one subject from blocking another subject.
3. The intensity of light is such that you only have an acceptable exposure one foot in front of and one foot behind the plane of calculated exposure. You need to keep this in mind.
4. One of the problems that must be dealt with is the extreme range of brightness between available light and the flash. Straight flash characteristically gives you black, black backgrounds. There may be times when you want this, but there are other instances when you won't. If you want to show something in the background, try one of the other techniques.
5. If you are using color film, a straight flash will produce the characteristic of "red-eye" in your subjects if they are looking directly at the camera. This can be corrected by using one of the other techniques, especially the bounce flash.

BOUNCE FLASH -

This is exactly what the name implies. You are bouncing the light off of a surface such as the ceiling or the wall so that the light is more diffused. When you use a bounce flash, you need to remember to calculate the distance the light is traveling to the bounce surface and then back to your subject. This is the distance you must use to calculate your aperture. Once you have your aperture, open up one or more f-stops to compensate for light that is lost during the bounce. Do not bounce off of paneled wood, dark walls or floors. Corners are excellent because of the way they reflect the light.

You can use ceilings, white walls, white umbrellas, posterboards, etc. Remember that the angle of incidence equals the angle of reflectance.

MUTED FLASH -

Another way to allow for detail in the background is to dim or mute the flash at the flashhead. The easiest way to do this is to put a white cotton handkerchief over the flash. Again, you must open up your aperture to compensate for the light that is not getting through the handkerchief. The easiest thing to do here is bracket your exposures, if possible, to make sure you get the proper exposure.

TIPPED FLASH -

This is a combination of bounce flash and straight flash. You are still bouncing the light off of a surface, but you are adding a little extra light to your subject by tipping it in with a white card or envelope. The card is attached to the flash head so that it sticks out a little past the end of the flash. This tiny reflector adds a little extra light to a person's face and gives a reflection in the subject's eyes. It will also add a little more contrast to the scene.

FEATHERED FLASH -

The exposure for feathered flash is determined the same way as straight flash, but it is shot in a completely different manner.

Pick a point in your frame that is the farthest point you want correctly exposed. You should use this distance to determine your aperture. Then hold the flash over your head and aim it at this farthest point. When you take the picture, the light from the flash will fall on subjects closer to the camera, but they will not receive the full force of the light. This way you will not burn up the foreground with too much light.

This type of flash is great for banquets or long lines of people...any large group. It is also helpful when you are trying to light up a room and only have one small flash.

With this technique, you are using your flash as a fill light instead of the main light. The sun provides the main light of the exposure and the flash helps light up the shadows, especially if the subject is backlit.

To determine the exposure, calculate the distance the light must travel and determine your aperture. Close down the aperture one-half or a full stop so that you still have the feeling of a shadow. Once you have this aperture set on your camera, set the shutter speed for the appropriate exposure for the sunny scene.

You may have a problem if the flash is too bright to help retain the feeling of a shadow. In this case, just diffuse the flash with a handkerchief. The flash should also remain on the camera. You do not want it casting its own shadow.

This technique works best with scenes lit by bright sunlight or against a rising or setting sun but interesting results can be obtained with hazy sun or cloudy days.

Its most useful purpose is to get detail in the shadow of backlit subjects. It helps balance the light so that there is detail in the shadows and you don't get a silhouette. Flash fill is usually ineffective if the subject is more than 10 feet from the camera.

MARK MURRAY

Arlington ISD ▪ 1203 W. Pioneer Pkwy. ▪ Arlington, TX 76013
(817) 459-7321 ▪ e-mail: mmurray@aisd.net