

## Flash photography - creative photographic opportunities ....

Flash photography is often used in only a very elementary fashion as a source of extra light. However, a full understanding of flash as a light source can result in an approach to photography with many possibilities.

Consider a few technical details. It is important to know what kind of a shutter you have in your camera. Single lens reflex cameras have shutters located at the back of the camera which are called focal plane shutters. When using electronic flash with focal plane shutters, you are limited by the maximum shutter speed that can be used, usually 1/60 or 1/125 of a second. The reason for this is that two blinds travel across the film plane. When the recommended speeds are exceeded, one blind starts moving across the film plane before the second blind has made it all the way across. In other words, there is a slit opening travelling across the film plane. As you can imagine, if the flash goes off at too high a shutter speed, you end up with only the slit portion being properly exposed. The rest of your film plane is underexposed as it is only receiving ambient room light. Flash can be 100 or more times brighter and consequently the covered portions of your film or sensor are unexposed, leaving a black bar where the shutter was in front of the film during the flash. Try taking a picture with a focal plane shutter at 1/500 second and look at the result. A simple inexpensive experiment that will help you understand this theory. Don't forget to slow the shutter back down and retake the photo to get a properly exposed image. With film and digital cameras, check your manual to find the allowable shutters to use with electronic flash.

Now, on to some applications of flash. Some are listed below.

- . additional light
- . reduce shadows - direct sun
- . backlighting - fill
- . stop action
- . darken backgrounds
- . multiple imaging
- . drag shutters

Most people use flash as a source of additional light, most commonly indoors. If this is not done, extremely slow shutter speeds would be required and this could cause blurry images which result from camera and/or subject movement. However, when flash is used indoors it is important to note that light intensity falls off very

quickly as the camera to subject distance increases. Light intensity is equal to the inverse square of the distance ( $I=1/d^2$ ). For example, if you went from 1 to 2 meters, the intensity would be 1/4 the brightness. With inexpensive flash units, they become relatively ineffective at distances of more than 4 meters. Remember that since light drops off in brightness so quickly, your subjects cannot have too much depth. Forget about taking a picture of a student assembly in a gymnasium. However light fall off can be used to your advantage. Distant cluttered and unattractive backgrounds appear very dark in photo and as such are not noticeable. A great way to get rid of unwanted backgrounds. Professional photographers will often get up high when photographing large groups so that subjects are more evenly distanced from the camera flash.

Another great application of flash is the stopping of action. Since the flash duration is only about 1/1000 of a second, you can use flash very effectively for indoor sports to freeze motion. This is ideal for badminton and basketball. Don't worry about the slow shutter speed that you are using, as the effective shutter speed is the duration of the flash. Make sure you get permission to photograph official games as flash can be distracting to the players.

Another creative application of flash is multiple exposure. In a darkened room you can set your shutter on 'B' and place the camera on a tripod. Have a subject in one location and manually fire the flash. Next, move your subject to another location and fire the flash again. In so doing, you have multiple exposures.

Yet another application is called 'dragging' the shutter. If you are taking a picture of a person indoors under dim light, you can use a very slow shutter speed such as 1/8 of a second. The flash will properly expose your subject in the foreground and the slow shutter will allow proper exposure of the background by allowing additional light into the camera. Remember to keep your subject still during the longer exposure. If background subjects are moving, you can capture some very creative blurring.

Another application of flash is colour correction. Indoor lighting such as tungsten bulbs emit a very yellow light. Fluorescent lighting gives off a greenish colour shift. If you take pictures indoors without flash, these colour shifts become apparent in your

photos. However, when you use electronic flash, the colour temperature of this light source is very similar to that of sunlight which is what most films and digital sensors are balanced for. As such, you can take colour photographs indoors and get proper colour balance. When working with digital cameras, you can use a 'white balance' control to achieve proper colour without the use of flash. Read your manual for this technique. It is easy and effective.

Fill lighting provides another application of flash. As you can imagine, the brightness of light outdoors is much higher than the light inside a building. Consequently, if a person is standing in front of a window, it is not uncommon to see them appear as a silhouette against a properly exposed exterior. This is the result of your subject being underexposed. However, by using flash, additional light falls on your subject and indoor and outdoor light intensities become similar. Even when pictures are taken outside, you can drop in a little flash to subdue the shadows resulting from the bright sunlight. People's eyes are recessed in the skull and without flash, they are in a shadow resulting in a dark area. Professional photographers call these 'raccoon' eyes or 'eye pockets'. A touch of flash softens these dark areas and results in a more flattering portrait. When sunlight comes from behind your subject, beautiful highlights appear around the edges of your model. This is often used with glamor photography of women. The face, being in the shadow, is lit with flash. The resulting image is very flattering. If you don't have a flash handy, you can also use a white reflective surface to fill in the shadow side. Professional photographers often have assistants hold reflectors to accomplish this. When this is done, you can actually see the effect of the fill lighting before the picture is actually taken.

Well, there you have it. A little more knowledge on how to use flash. Experiment with some of the ideas outlined and capture some unique and creative images for your yearbook.