

**BASIC PHOTOGRAPHY WORKSHOP: These are terms that you need to be familiar with. They are the most basic of terminology that is essential to photography. These terms are used throughout my presentation.**

***Aperture-*** This is also known as an F stop. Control the amount of your image that is in focus by changing the size of the lens opening.

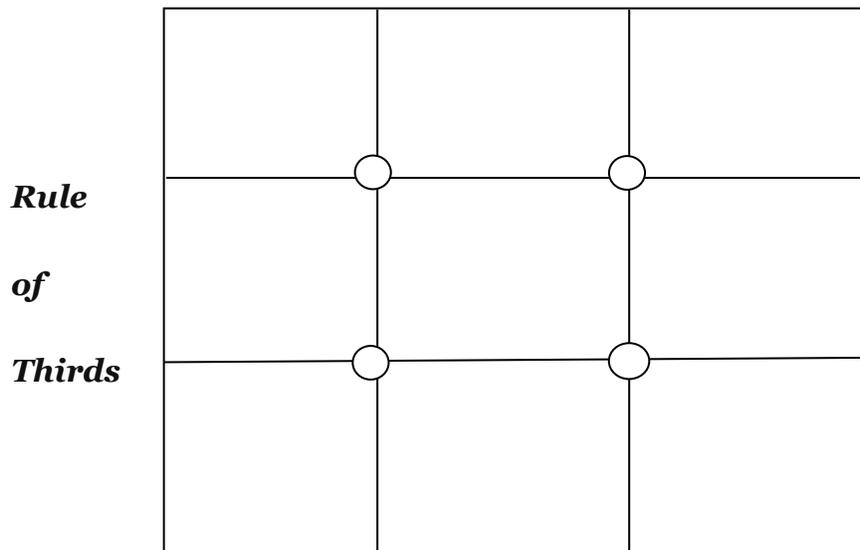
***Aperture Priority -*** An automatic shooting mode seen on the camera as the A mode. Allows you to set the Aperture necessary to give the amount of focus you desire in the photograph. In this mode, you set the Aperture and the camera chooses the correct shutter speed to make a good photo.

***Shutter Speed-*** This On your camera, this can be seen with the S mode. Shutter speed controls the amount of movement in a photo from slow to show movement to fast to stop action.

***Shutter Priority-*** An automatic shooting mode in the S mode that allows you to set the shutter at a speed you think is best for the situation and the camera determines the correct aperture to make a good photo.

***Manual-*** A shooting mode on your camera that enables you to control every aspect of shooting. You can manipulate the shutter speeds, ISO settings, aperture settings and loads more. On your camera this is the “M” mode.

***Composition: Rule of Thirds-*** This is the basic idea of composition. By placing the main subject where the lines cross on the Rule of Thirds, you can ensure good composition. This rule can be broken if your subject fills the frame and is a strong subject. There are other ways to break this composition rule too. See COMPOSITION section of slide show: ***Seeing Artistically***



**Exposure-** This term, in my own words, is the correct measurement and recording of all the different tones in the photo. (I don't say COLOR, because a camera only records TONES.) The actual description of Exposure is: The total amount of light allowed through a lens and onto a camera's sensor. The aperture controls a specific amount of light, and the shutter controls the amount of time that the light is allowed to pass through. The aperture and shutter working together controls exposure.

**See the new Shutter/Aperture chart on page 5. Thanks to Bill Matthews, it is now much easier to read.**

**Overexposure** - A condition in which too much light reaches the digital camera sensor, creating a photograph that appears too light and washed out

**Underexposure** - A condition in which too little light reaches the digital camera sensor producing a dark and muddy-looking print.

**Normal or Correct** - The straight aperture and shutter speed exposure combination based on a simple light measurement by the camera's light meter. This may be just a starting point, however, depending on the scene's lighting, and the photographer's creative vision.

You typically control exposure by adjusting the shutter speed, ISO or aperture depending on what shooting mode (manual, aperture, shutter priority or program) that you are in.

I use the Bill Stoffel method to obtain the correct exposure. More on this in my presentation, Slide name "*How I take a Photograph*"

**Kodak Gray Card.** This is a standard tool used to determine correct exposure. If you can keep 18% gray card in your mind or in your camera bag, expose on a similar color (green grass, dark blue clear North sky, a similar gray sidewalk, roofing, etc.) before you press the shutter and your photos will be much better exposed. See "How I take a Photo" and "EXPOSURE" section of the slideshow for more info.

Buy a card online or if you want an inexpensive one, print your own 18% gray card on Photoshop using: 127,127,127 for an RGB file or 50,0,0 for LAB colorspace. OR, buy a tube of artist acrylic paint. Look on the label for the color information of a N5 or L=50, a=0, b=0. Paint onto most any surface (cracker box, paper, card stock, matboard, etc.)

**Lens-** There are different types of lenses. Lenses with a larger aperture (f1.4) are known as fast lenses. Lenses with a smaller aperture (over f4) are known as slow lenses.

**Prime lens:** A fixed focal length with no zoom. Most say prime lenses give best picture results.

**Zoom Lens:** a lens that zooms in and out. The best zoom lenses keep the aperture from beginning to end of zoom range. Others have an aperture that varies, ie, 3.5 - 8.5 and when you zoom, the aperture changes.

**Macro Lens:** Lens that is specific to taking very close shots. They usually are prime 50mm or 90mm lenses, are expensive, but well worth the money if you are interested in getting in REALLY close to small subjects.

**Flash-** On your camera, this is typically characterized by the lightning bolt symbol. There are different types of flash. Here are examples.

Full Flash - The flash puts out the amount of light that the sensor says the shot needs.

Fill Flash- light that will just fill in any dark spots.

Red Eye- flash that will prevent red-eye from showing up.

## ***IMAGE TYPES***

**RAW-** There are many different types of image files.

The most common is JPEG, which most cameras take. JPG is a compressed image. When you change a JPG photo in the computer and save it again, always give it another name, to prevent degradation of the image.

RAW is a much larger file that contains all information in the scene and allows more flexible, detailed editing. If you shoot RAW, be sure to have plenty of storage cards with you.

RAW/JPEG: the camera takes 2 images at the same time. Takes more storage space but well worth it to have both images to work with later.

You can (in the computer) save a **JPG to TIFF** format while you work on the image in the computer. TIFF images can be saved/resaved without renaming them. You must save a TIFF image back to a JPG to share & use with the Photo Club competitions.

**Focus-** Proper focus will allow you to show some part of or all of an image to be very sharp. In a DSLR you can clearly and sharply see what you have in focus by using the depth of field preview or Live View. The larger your F stop the less will be in focus.

There are different type of focusing modes:

Macro, which is anything really, really up close. About a couple of inches or even less. (seen as a flower symbol). True Macro images 1:1 ratio, meaning the image presents with the same dimensions as the subject. True Macro photography requires a prime Macro lens.

Auto-focusing which lets the camera focus for you but isn't always the best to use.

One shot autofocus- focus will be maintained on one spot or subject. If it moves or you move, focus will be lost - UNLESS - you hold the shutter button halfway down until you actually take the photo.

Continuous AutoFocus- Will continuously focus on a subject as it moves.

Manual focus which enables you to control focusing. In certain circumstances, you will find that Manual Focusing is easiest to use. (Photographing from a car, for instance.)

**Shooting Speed/Modes-** This determines how many pictures (or exposures) your camera will take when the shutter is pressed down. On your camera, shooting mode is typically characterized by the three rectangles stacked on top of one another.

Single exposure - When the shutter is pressed it will take one picture. To take another picture, you need to press the shutter again.

Continuous- When the shutter is pressed and held down it will keep taking pictures until the card fills up or the processor can't write anymore photos to the card.

Bracketing - To insure one well-exposed photo, the camera takes 3 photos, each at a different aperture or shutter speed. Go into MENU and choose the settings for the 3 images, try 1/2 stop over & under to start.

Some cameras offer HDR (HIGH DYNAMIC RANGE) Mode where you take a series of shots and use a computer program to combine the shots into one exceptional image.

# Relationship between Shutter speeds & Apertures

