

Photography Basics



<http://www.geocities.com/Athens/Aegean/6763>

Camera settings determine quality of pictures.

F/Stops or Aperture Settings:

- Control the amount of light striking the film through the size of the aperture or lens opening.
- Control the amount of depth of field, or how much area in front of and behind the subject is in focus.
- Standard F/Stops include:
1.4 2.0 2.8 4.0 5.6 8.0 11 16 22
- The larger the number, the smaller the opening, and the lesser the light coming through.

Small aperture settings allow more depth of field. Larger aperture settings allow you to blur the foreground or background while keeping the main subject in focus.

Shutter Speeds:

- Control the length of time light is allowed to strike the film.
- Controls the amount of movement recorded on the film.
- Standard shutter speeds include:
B 1 2 4 8 15 30 60 125 250 500 1000
- The shutter speeds are actually fractions of seconds: 1000 translates to 1/1000 of a second.
- B stands for Bulb. Using this setting will allow the shutter to remain open as long as the shutter release is held down.

Faster shutter speeds are generally used outdoors in bright light, and will freeze action. Slower shutter speeds are used indoors or outdoors in low light, and will blur movement or action.

Deciding what settings to use:

- What is your priority? Is depth of field important? Do you need to freeze action or do you want to emphasize action in the photo?
- If depth of field is a priority, set your F/stop first, then read the light meter to see what your shutter speed must be to have enough light.
- If stopping or blurring the action is the most important consideration, set your shutter speed accordingly, then read the light meter to see what the aperture setting should be.

Equivalent Exposure:

There is a two times relationship between each of the f/stop settings (f/22 is the smallest opening; the next smallest opening, f/16, lets in exactly twice as much light). There is a two times relationship between each of the shutter speeds (1000 is usually the fastest shutter speed; the next smaller number, 500, lets in exactly twice as much light). Since both settings have a two times relationship, you can use different f/stop and shutter speed combinations to produce a variety of results but with the same amount of light.

f/5.6 @ 125 = f/8 @ 60 | f/11 @ 30 = f/16 @ 15 | f/22 @ 8 = f/4 @ 250

Do not hand-hold a camera at shutter speeds slower than 60. Use a tripod. Most poor pictures are caused by camera movement.