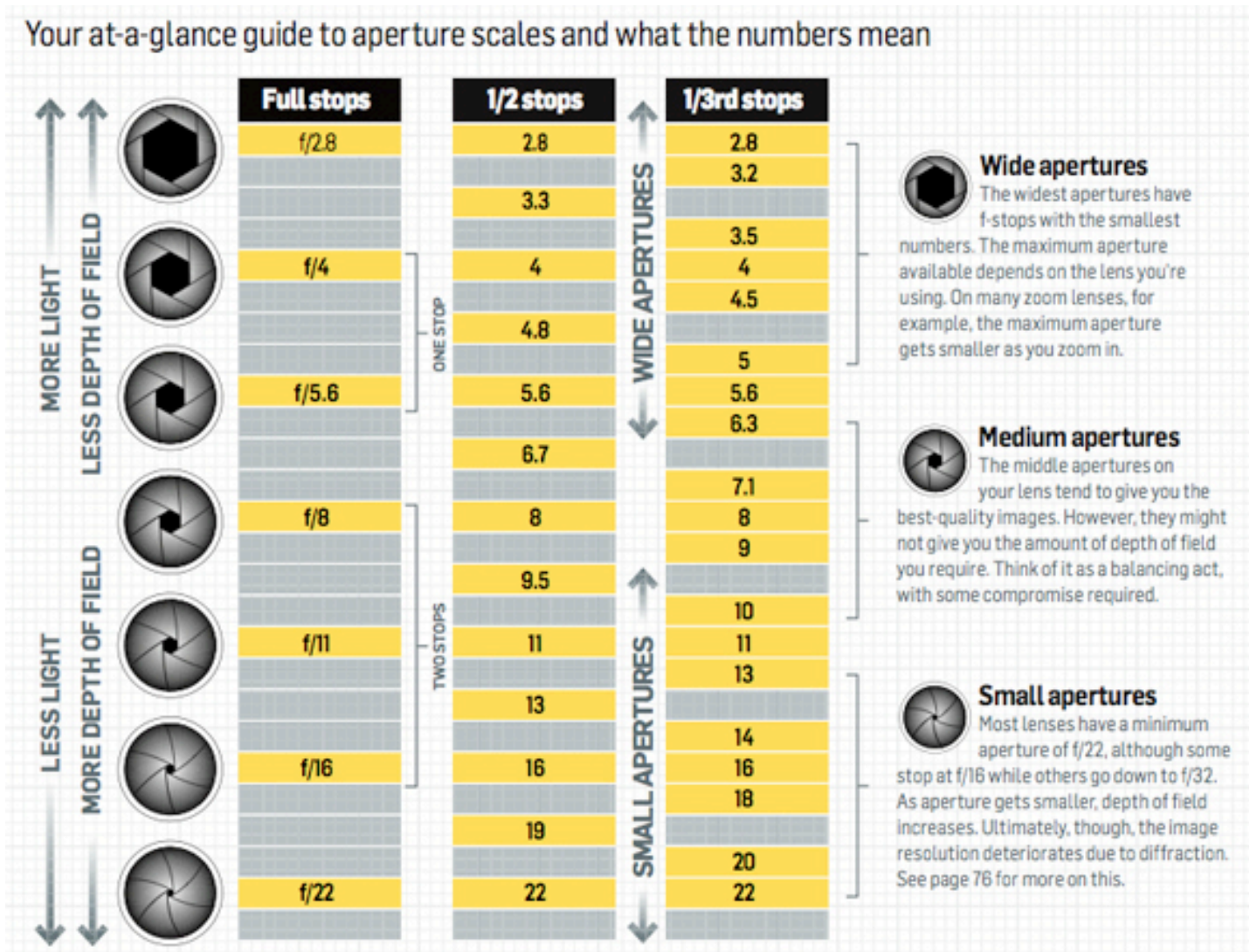
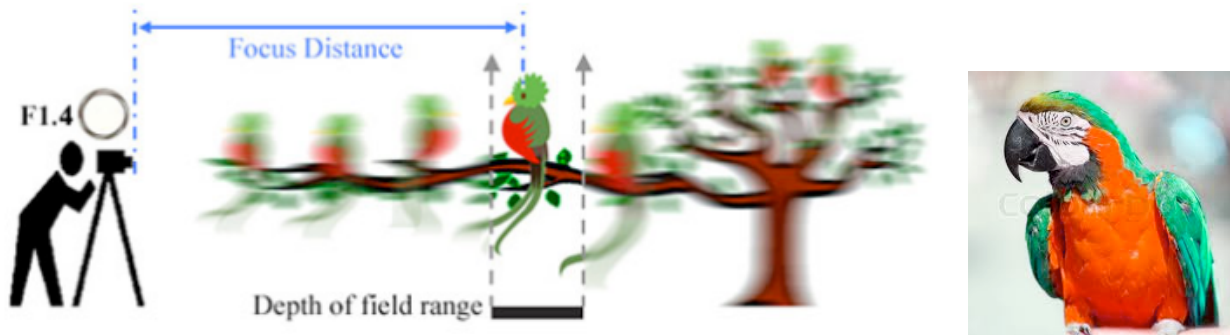


Aperture (or f/stops) directly affects the control depth of field.



Depth of Field - when the subject is the only thing in focus but the background is very out of focus. Like this image below:



What three things control DOF?

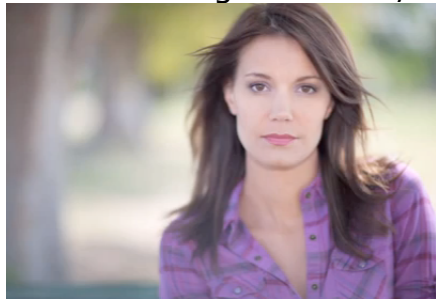
- 1) _____
- 2) _____
- 3) _____

What kind of aperture *opening* do you need to get a 'shallow DOF'
- Large or Small

What kind of aperture *value* do you need to get a 'shallow DOF'
- Large or Small

The larger the aperture _____ the shallower the DOF.

Was this image shot at f/1.2 or f/22? _____



Was this image shot at f/1.2 or f/22? _____



_____ has a huge impact on DOF. The two images below were both shot at f/2.8 (adjusting the shutter speed in each case to balance out the light using the Law of Reciprocity). Notice the huge difference in the images in regards to perspective, image compression (foreground to background relationship) and how blurry the background appears.



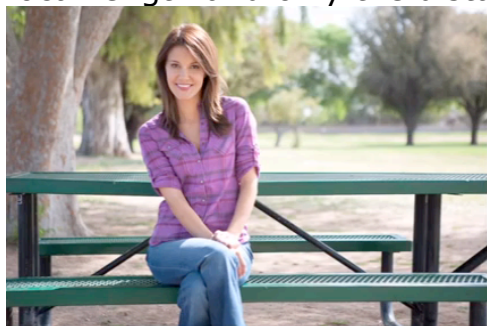
This image above was shot with a _____ focal length at f/2.8.



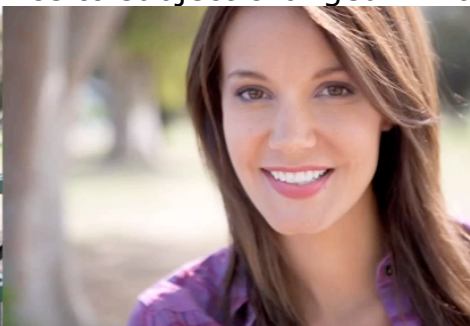
This image above was shot with _____ focal length at f/2.8.

_____ from subject also has a huge impact on your DOF.

In the images below, the two shots were taken with the same aperture and focal length and only the distance to subject changed. What changed?



9ft



3ft

The closer your camera is to your subject the _____ your DOF becomes regardless of lens used.

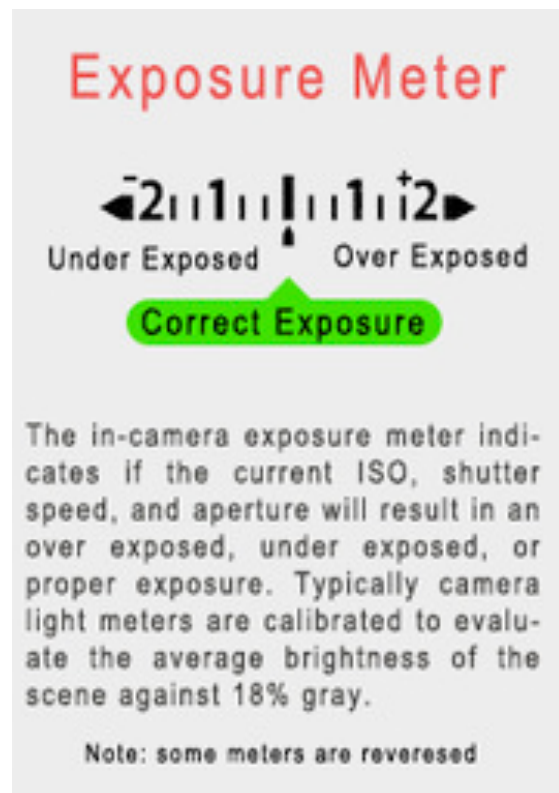
A _____ is a relative measurement of light (twice as much or half as much).

Opening up the f/stop means you are letting in _____ the amount of light.

Closing down (or 'stopping down') the f/stop means you are letting in _____ 1/2 _____ the amount of light.

Slow down the shutter speed and you are letting in _____ as much light into your camera.

Speeding up your shutter speed allows _____ the light into your camera.



The inside meter (when viewed through your viewfinder) in all cameras are different when shooting in manual which allows you to control the exposure

with your shutter speeds and apertures. Here is a simplified view of how they are similar.

EXPOSURE



ON this meter below (inside the viewfinder) the small lines represent _____ stop increments of exposure value.



ON this meter below (inside the viewfinder) the long lines represent _____ stop (or full stop) increments of exposure value.



This meter scale below indicates the image will be a full stop

_____. (Underexposed or Overexposed)



A small aperture value equals a large aperture opening. True or False

F/2.8 is a large aperture opening. True or False

F/22 is a small aperture opening. True or False

The aperture is found in the camera's lens; not the camera itself. True or False

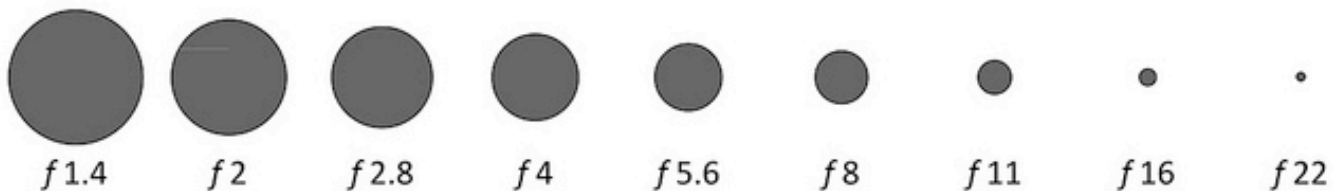
The aperture controls the amount of _____ that passes through your lens by changing its size.

Lenses are described by their _____ and _____.

Zoom lenses are described with a range of focal lengths like 70-200mm, or 24-70mm or 16-35mm, etc.

The aperture value does not stay the same on consumer zoom lenses since it costs a lot to make a fixed aperture across.

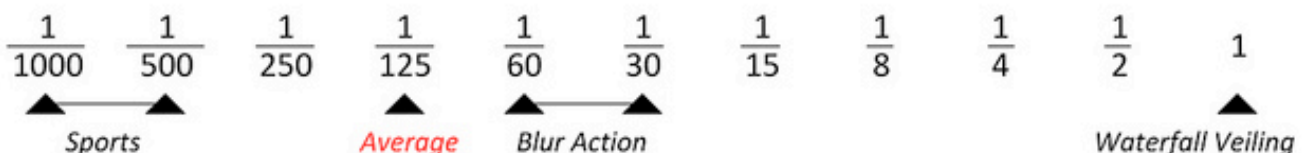
Aperture Full Stops: Higher F-Stop is Less Light



More Light
Shallow Depth of Focus (DOF)

Less Light
Sharper Image, Deep Focus

Shutter Speed Full Stops in Seconds



Shorter Exposure
Freeze Action, Handheld

Longer Exposure
Motion Blur, Tripod

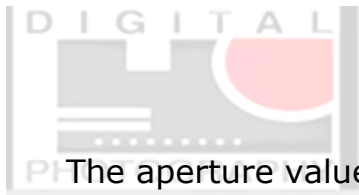


FOTO 1140

The aperture value (f/stop), shutter speed and ISO make up the exposure triangle because those 3 things need to be balanced in order to have proper exposure.

When you are hand-held you should choose a shutter speed at least as fast as the longest focal length of our lens to insure the image is sharply focused. (This (in an indirect way) is why a lot of phone/iPhone shots at night or in low light are so blurry. The shutter speed is not fast enough to freeze even normal scenes.)

Manual mode is a great way to totally control the creative look of your exposure choices. Typically I always try to shoot at ISO 100 to keep my noise at a minimum. Nikon shooters can only go down to 200 in a lot of cameras. If it is dark I will go to ISO 400 as my base (the ISO is the last thing I want to change if I need to). Then I decide if I want to capture DOF (shallow or maximum DOF) or motion (freeze or blur). Then I choose an extreme. So if I want to take a shallow DOF shot then I will choose the lowest f/stop on my lens (f/1.4 to f/4 depending on your lens) and balance out the exposure by turning my shutter speed dial. Remember if you go below 1/60th then you need a tripod to maintain stability.