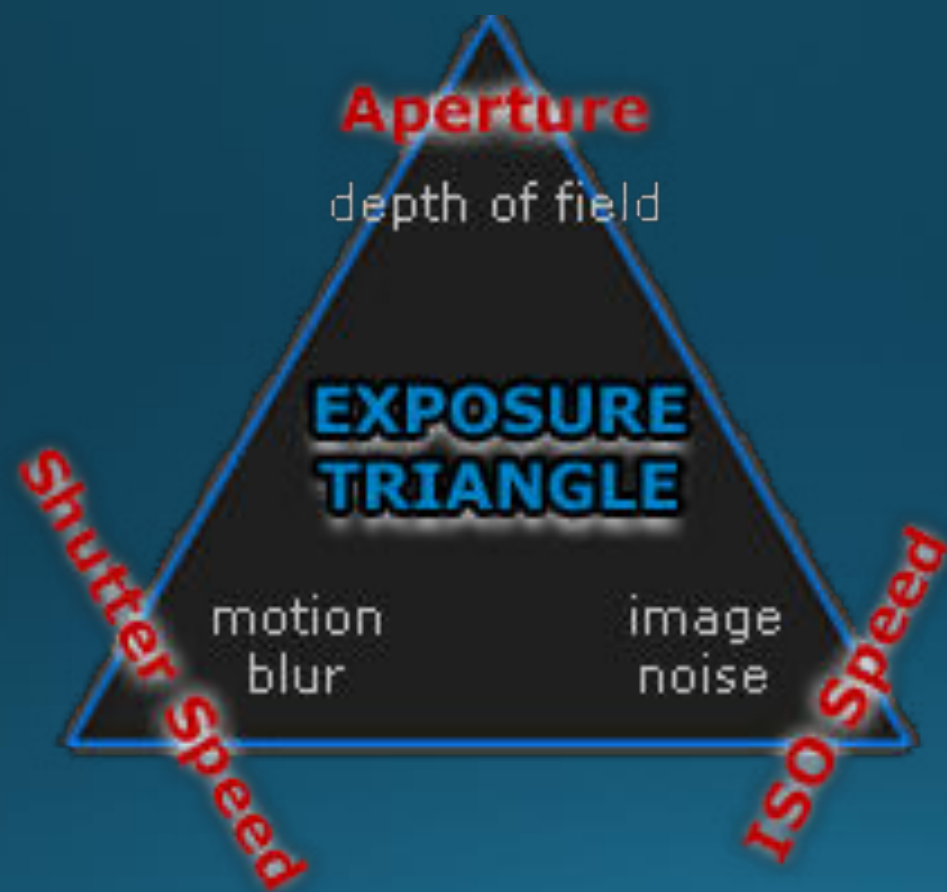


Aperture

Definition of *aperture*:

1.1 : an opening or open space : hole *entered the cave through a narrow aperture*

2.2 : the opening in a photographic lens that admits the light



In photography, aperture is expressed in f-numbers (for example f/5.6).

These f-numbers that are known as “f-stops” are a way of describing the size of the aperture, or how open or closed the aperture is.

A smaller f-stop means a larger aperture, while a larger f-stop means a smaller aperture.

Most people find this awkward, since we are used to having larger numbers represent larger values, but not in this case.

For example, f/1.4 is larger than f/2.0 and much larger than f/8.0.

What the actual opening looks like in your camera.



f/1.8

f/2.8

f/4.0

f/5.6



f/8

f/11

f/16

f/22

The scale is as follows:

f/1.4, f/2, f/2.8, f/4, f/5.6, f/8, f/11, f/16, f/22.

The most important thing to know about these numbers is that, from each number to the next, the aperture decreases to half its size, allowing 50% less light through the lens.

Cameras have settings in between that are either $\frac{1}{2}$ stop or $\frac{1}{3}$ stop. This is what they would look like.

Setting by 1 stop	Setting by 1/2 stop	Setting by 1/3 stop
1		1.1
	1.2	1.3
1.4		1.6
	1.7	1.8
2		2.2
	2.6	2.5
2.8		3.2
	3.5	3.5
4		4.5
	4.5	5
5.6		6.3
	6.7	7.1
8		9
	9.5	10
11		13
	13	14
16		18
	19	20
22		25
	27	29

This is what the aperture setting would like on your camera.



Aperture Priority - Nikon

Nikon: Aperture

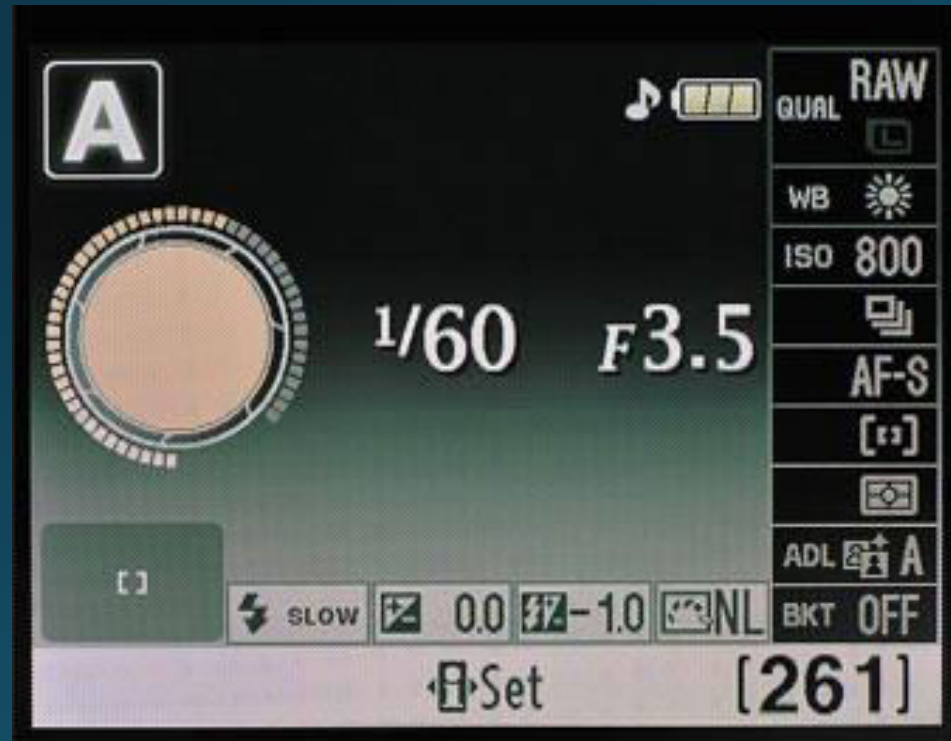


Aperture Priority - Canon

Canon: Aperture Value

How Aperture Affects Shutter Speed

The f/stop also affects shutter speed. Using a low f/stop means more light is entering the lens and therefore the shutter doesn't need to stay open as long to make a correct exposure which translates into a faster shutter speed. Again, the reverse is true: using a high f/stop means that less light is entering the lens and therefore the shutter will need to stay open a little longer which translates into a slower shutter speed.



Low f/stop - Large aperture - Less depth of field



High f/stop - Small aperture - Greater depth of field

What your photo will look like using a smaller then larger aperture.



If you are in Aperture Priority Mode, you control ISO and the camera controls the shutter speed.

When could you use Aperture Priority Mode to control Depth of Field:

Good light/ Sunny day (wide open, or stopped down)

Portraits, to get great bokeh (wide open)

Landscapes (stopped down)

Nature shots (wide open)

Questions...