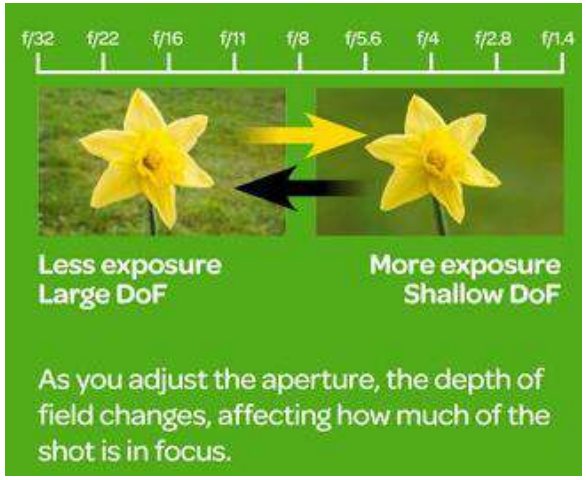
Aperture

The opening (or 'pupil') of your lens is called aperture, which can be made smaller or bigger to change the amount of light being let in.



A wide aperture (such as f/1.4) lets more light in, allowing for a faster shutter speed or lower ISO, and a shallow depth of field (how much of the image is in focus).

A narrower aperture (such as f/8) lets less light through, requiring a slower shutter speed or higher ISO, but results in more of your image being in focus.

Aspect Ratio

This refers to the ratio of width to height, normally in reference to the crop of an image or a camera sensor's dimensions. Common camera sensor aspect ratios are 4x3 and 3x2. Common image aspect ratios are 1x1, 4x3, 4x6, 5x7, and 4x5.

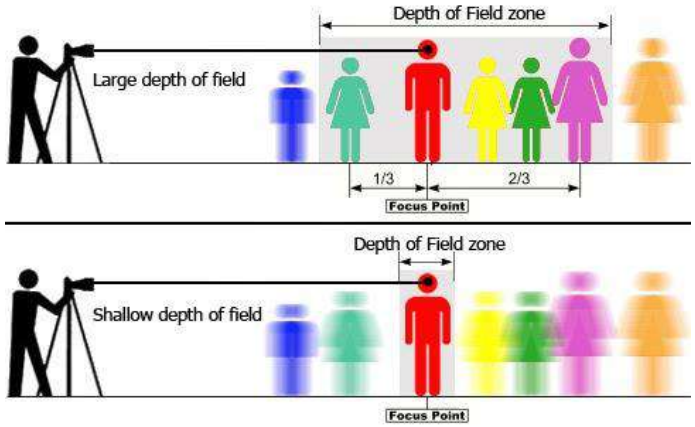
Bokeh

Is produced by blurring the background of an image and is popular in portraits as it forces you to focus on the subject.

Most photographers look for smooth bokeh so as to not distract from the rest of the image. Using this technique, light sources can appear as smooth blobs of colour.

Depth of Field

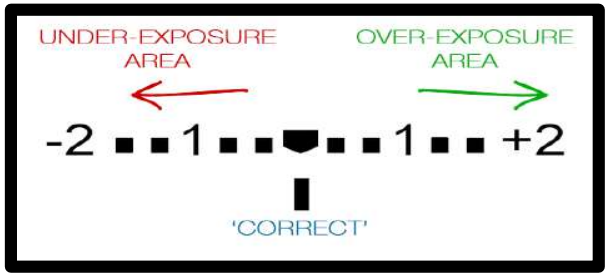
The distance between the closest and farthest subjects in a scene that look sharp in an image (abbreviated to DOF).



A wide aperture (f/1.4, f/2, etc.) produces a shallow depth of field, which can be used to isolate a subject.
A narrow aperture (f/11, f/16, etc.) produces a wide depth of field, which keeps everything in focus.

Exposure

Is the amount of light entering the camera's sensor. Too much light and the image is overexposed and not enough light and it's underexposed.



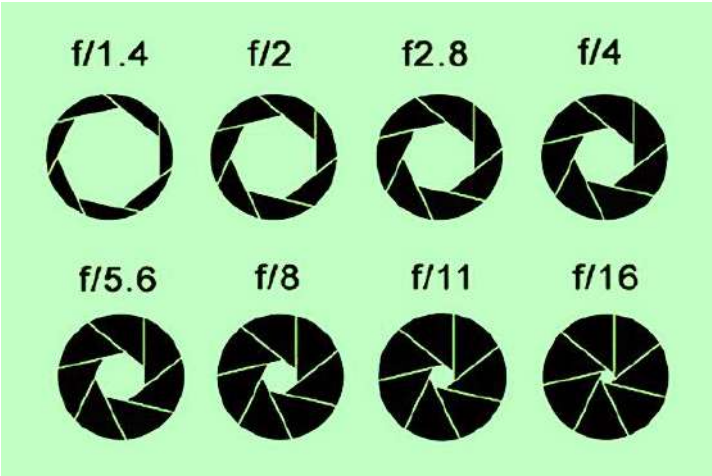
Exposure is determined by a combination of shutter speed, aperture, and ISO.

Focal Point

Is a way to describe the main part of the image or a point of interest within the image. It is where the viewer's eye is drawn to most.

F-Stop

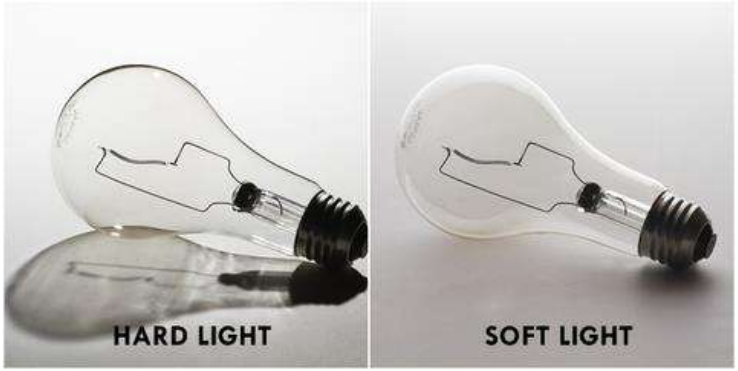
Or f-number is the aperture size or aperture stop in a number that controls the size of the lens opening. Therefore controlling the amount of light entering the camera.



Smaller f-stops, like f/1.4 or f/2, indicate a wider aperture, while larger f-stops, like f/11 or f/16, indicate a narrower aperture.

Hard and Soft Light

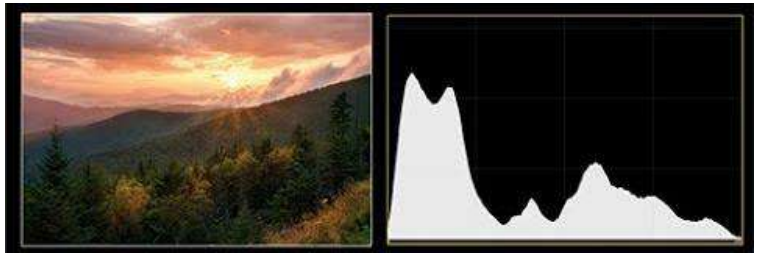
Referring to the kind of lighting and resultant shadows.

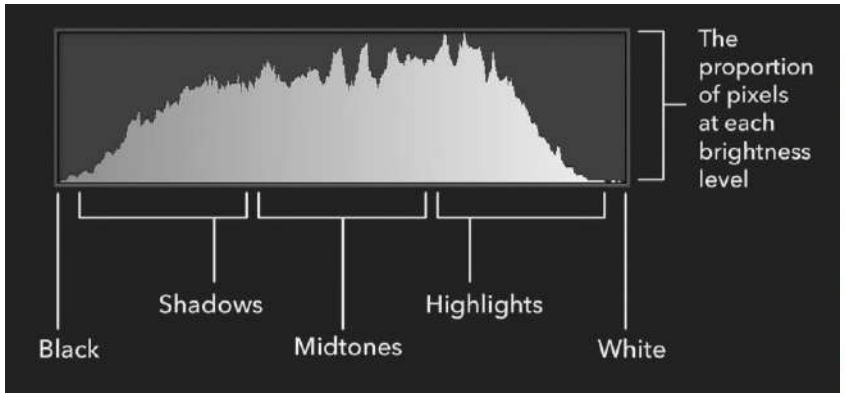


Hard light is produced by small, direct light sources, and produces harsh, defined shadows. Soft light creates more gradual tonal values, and a more diffused look with soft or no shadows, and is often considered more flattering.

Histogram

A graph showing the distribution of tones in an image, used to determine exposure.

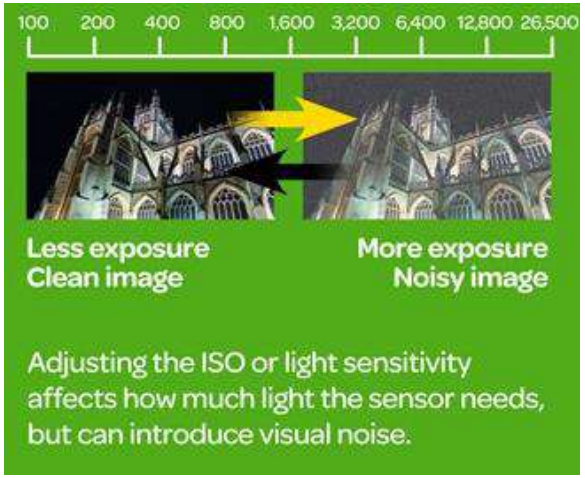




By using the histogram, photographers are ale to identify which areas are too dark and too bright. In Photoshop you can view and edit this via the 'Levels'.

ISO

How sensitive the camera is to light.



Low ISOs (100, 200, etc.) require more light to produce a proper exposure. High ISOs (3,200, 6,400, etc.) require less light. Higher ISOs produce more noise (making an image look grainy), less detail, and reduced dynamic range. ISO is used in tandem with shutter speed and aperture to create an exposure.

Macro

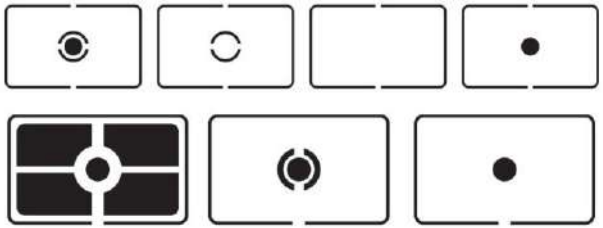
Photographing objects that are extremely small.

Macro lenses can usually capture more detail that we can see with the naked eye. Normally macro photographers would use a lens with a 1:1 ratio, which is the size of the subject on the sensor.

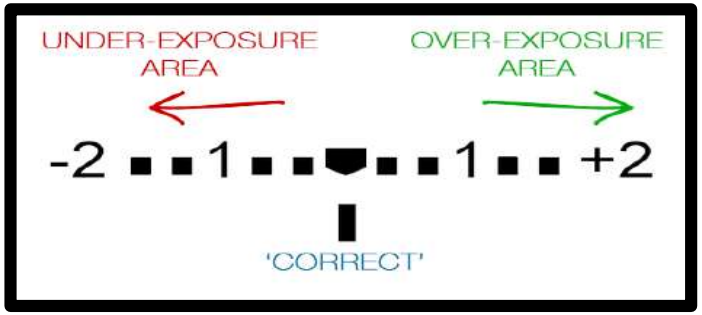
Manual Mode

This refers to the camera mode in which the three exposure parameters (shutter speed, aperture, and ISO) are totally controlled by the photographer with no automatic input from the camera. This increases technical and creative control.

Metering



Metering refers to how the camera measures the amount of light in a scene to help it calculate the proper exposure. Most cameras have a range of metering options for different situations.



Use the light meter on your camera to achieve the correct exposure- the arrow should be at 0 in the middle.

Viewfinder

The photographer looks through the camera's viewfinder to focus and frame the shot. You can also see what's through the viewfinder on most digital camera screens by changing to 'live view' mode.

Noise

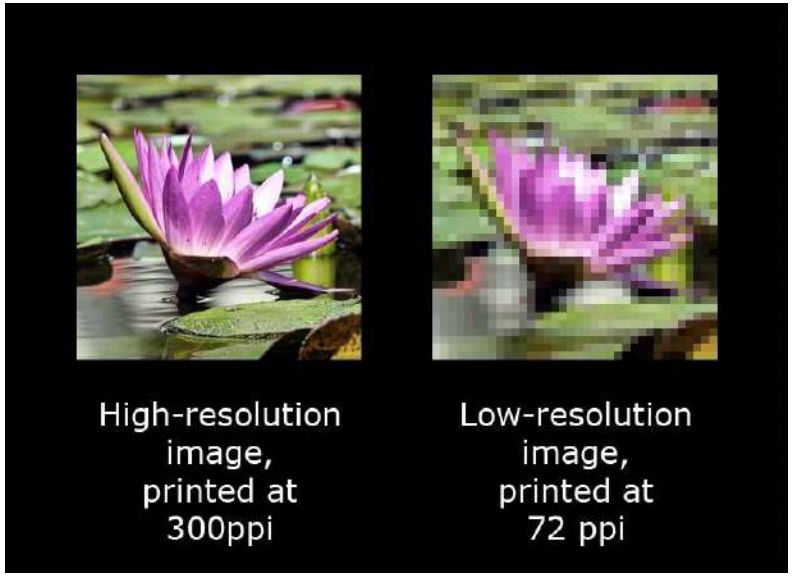
Noise (also known as ‘grain’) increases as ISO increases.

Noise normally refers to random fluctuations in image brightness in pixels and is generally undesirable in images. A photograph with noise completely distracts the viewer’s attention, making him focus on the grainy areas instead of the other important elements of your image.

Raw

A raw file is the data taken from the sensor without any sort of image processing applied (as opposed to a JPEG produced by the camera). Though bigger in file size, photographers prefer raw files because they allow for more creative range in post-processing and higher image quality before exporting the final image in a file format like JPEG.

Resolution



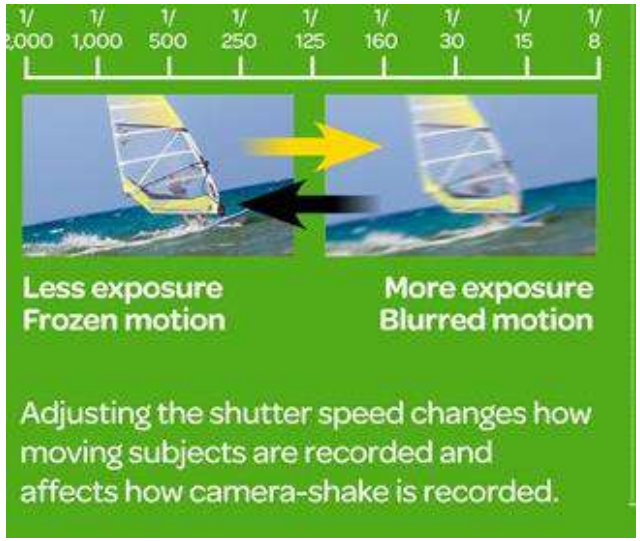
The total amount of pixels in an image or on an image sensor. Higher resolution can render more detail in a photo. Resolution is typically measured in megapixels (millions of pixels). Print quality is 300 dpi.

Rule of Thirds

A common compositional tool that states that one should divide the image frame into equal vertical and horizontal thirds, then place points of interest at the intersections of the dividing lines.

Shutter Speed

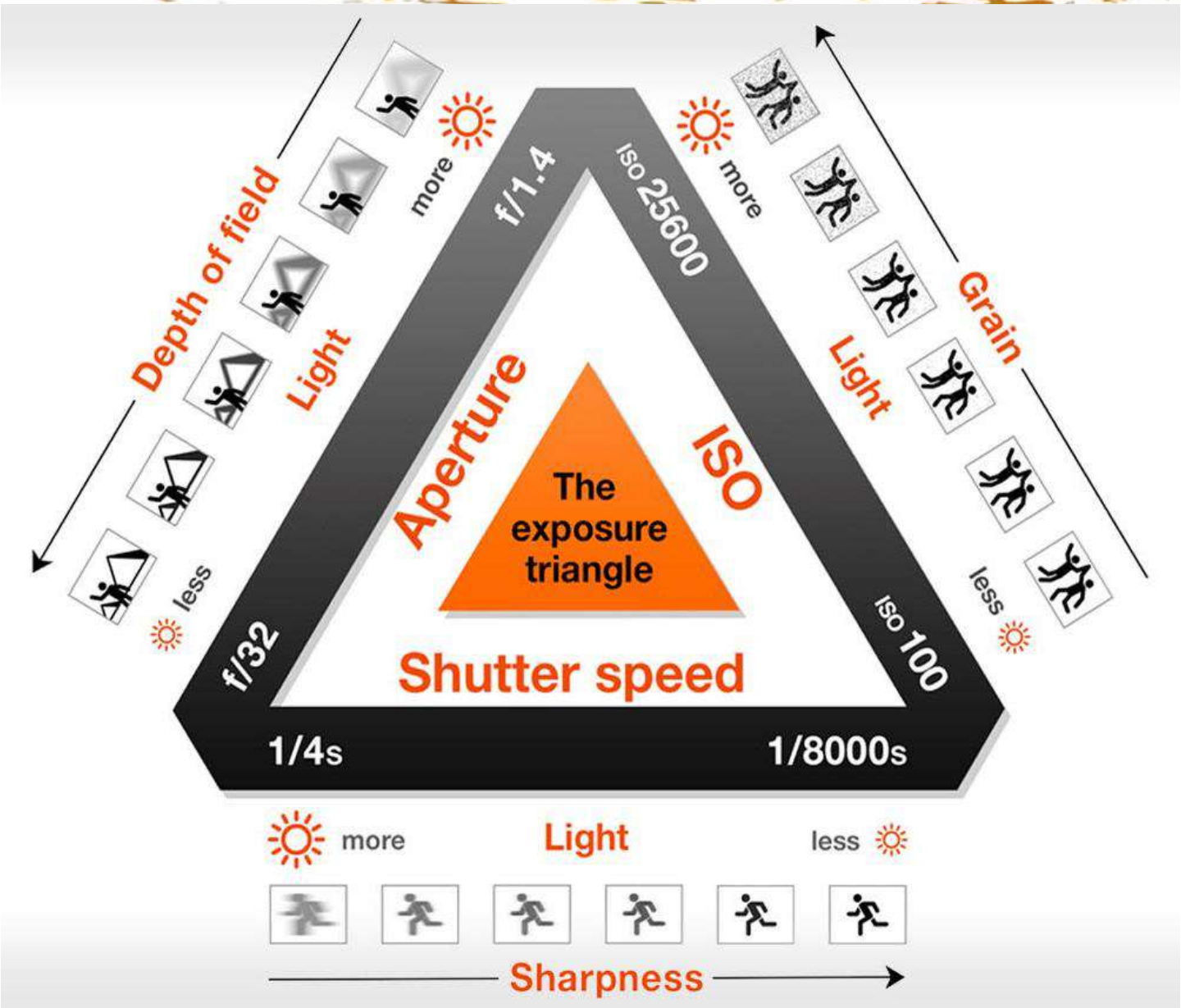
The amount of time the camera's shutter is open for.



Longer shutter speeds (1/10 s, 1 s, 3 s, etc.) allow more light in but will cause blurring of anything moving.
Shorter shutter speeds (1/200 s, 1/1,000 s, etc.) let less light in and can capture moving subjects as still or 'frozen'

White Balance

(WB) is used to regulate colours to match the actual light in the scene from fluorescent lighting, sunlight and bulbs and takes into account the colour temperature within the image.


Depth of field
more
Light
less
f/1.4
iso 25600
more
Grain
Light
less
Aperture
ISO
The exposure triangle
f/32
iso 100
Shutter speed
1/4s
1/8000s
more
Light
less
Sharpness