

explanation of this cheat sheet on my youtube channel
#3steps1stoplev

brightness of the scene you want to photograph



Naturally scene luminance can change from very bright daylight to a night scene lit by stars only. These examples shall give you a ballpark. Of course they depend e.g. on the brightness of an indoor light bulb. Scene luminance can be measured in EV (Exposure Values). Every step reduces the light by 50% - or in other words, cuts it in half.

depth of focus (DOF) | background blur



The aperture changes the depth of focus. The higher the number, the bigger the depth, or in other words the more of your image (front to back) will be sharp. For landscapes you usually want more depth to have foreground and background in focus. For portraits you want less depth, to blur the background.

freeze | blur motion



The shutter speed will determine how motion is captured. A faster shutter speed will freeze motion, a slower shutter speed will blur motion. A faster shutter speed will also help you prevent camera shake (blur due to your hand shaking while taking your image).

noise | dynamic range



These bars mark the same brightness change in your image. No matter whether scene luminance changes, or YOU change aperture, shutter speed or ISO, 3 of those steps (except for the scene luminance) will always **double the brightness** (reading from left to right) or halve the brightness (reading from right to left). Photographers call that doubling or dividing in half "**ONE STOP**" (you will often hear: raise ISO 1 stop, or lower shutter speed 1 stop). The technical name for one stop is "**Exposure Value (EV)**", so three of those steps are one Exposure Value.

¹The overall image sharpness will increase to a certain sweetspot of your lens (usually ~f8 - f11). From that onwards, it will become less sharp due to an effect called **diffraction**

²BULB is a shutter speed setting that will keep your shutter open as long as you keep the shutter button pressed - it is best used with a cable release.

³ Some entry level cameras will only let you set the ISO in **full stop** increments, don't let that confuse you (e.g. ISO 100, ISO 200, ISO 400,...., but not ISO 160)

